



# SAR TEST REPORT

**Applicant** Huawei Technologies Co., Ltd.  
**FCC ID** QISVOG-LX9M  
**Product** Smart Phone  
**Brand** HUAWEI  
**Model** VOG-L29m, VOG-L09m  
**Report No.** R1904H0089-S1  
**Issue Date** May 14, 2019

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **IEEE 1528-2013, ANSI C95.1: 1992/IEEE C95.1: 1991**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

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# 1 Test Laboratory

## 1.1 Notes of the Test Report

This report shall not be reproduced in full or partial, without the written approval of **TA technology (shanghai) co., Ltd.** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein .Measurement Uncertainties were not taken into account and are published for informational purposes only. This report is written to support regulatory compliance of the applicable standards stated above.

## 1.2 Test facility

### **CNAS (accreditation number:L2264)**

TA Technology (Shanghai) Co., Ltd. has obtained the accreditation of China National Accreditation Service for Conformity Assessment (CNAS).

### **FCC (Designation number: CN1179, Test Firm Registration Number: 446626)**

TA Technology (Shanghai) Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements.

### **IC (recognition number is 8510A)**

TA Technology (Shanghai) Co., Ltd. has been listed by industry Canada to perform electromagnetic emission measurement.

### **VCCI (recognition number is C-4595, T-2154, R-4113, G-10766)**

TA Technology (Shanghai) Co., Ltd. has been listed by industry Japan to perform electromagnetic emission measurement.

### **A2LA(Certificate Number: 3857.01)**

TA Technology (Shanghai) Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform electromagnetic emission measurement.

### 1.3 Testing Location

Company: TA Technology (Shanghai) Co., Ltd.  
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### 1.4 Laboratory Environment

|                                                                                                                                                                                               |                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| Temperature                                                                                                                                                                                   | Min. = 18°C, Max. = 25 °C |
| Relative humidity                                                                                                                                                                             | Min. = 30%, Max. = 70%    |
| Ground system resistance                                                                                                                                                                      | < 0.5 $\Omega$            |
| Ambient noise is checked and found very low and in compliance with requirement of standards<br>Reflection of surrounding objects is minimized and in compliance with requirement of standards |                           |

## 2 Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for the EUT are as follows:

Table 1: Highest Reported SAR

| Mode             | Highest Reported SAR (W/kg) |                                       |                                     |                                                  |
|------------------|-----------------------------|---------------------------------------|-------------------------------------|--------------------------------------------------|
|                  | 1g SAR Head                 | 1g SAR Body-worn<br>(Separation 15mm) | 1g SAR Hotspot<br>(Separation 10mm) | Product Specific<br>10-g SAR<br>(Separation 0mm) |
| GSM 850          | 0.53                        | 0.18                                  | 0.39                                | NA                                               |
| GSM 1900         | 0.50                        | 0.16                                  | 0.73                                | NA                                               |
| WCDMA Band II    | 0.71                        | <b>0.51</b>                           | <b>0.74</b>                         | NA                                               |
| WCDMA Band IV    | 0.75                        | 0.41                                  | 0.57                                | NA                                               |
| WCDMA Band V     | 0.53                        | 0.31                                  | 0.60                                | NA                                               |
| LTE FDD 2        | 0.62                        | 0.39                                  | 0.52                                | NA                                               |
| LTE FDD 4        | 0.59                        | 0.28                                  | 0.51                                | NA                                               |
| LTE FDD 5        | 0.40                        | 0.26                                  | 0.41                                | NA                                               |
| LTE FDD 7        | <b>0.76</b>                 | 0.44                                  | 0.47                                | NA                                               |
| LTE FDD 12       | 0.50                        | 0.27                                  | 0.40                                | NA                                               |
| LTE FDD 17       | 0.56                        | 0.21                                  | 0.37                                | NA                                               |
| LTE FDD 26       | 0.48                        | 0.28                                  | 0.41                                | NA                                               |
| LTE TDD 38       | 0.38                        | 0.25                                  | 0.28                                | NA                                               |
| LTE TDD 41       | 0.47                        | 0.19                                  | 0.45                                | NA                                               |
| Wi-Fi (2.4G)     | 0.36                        | 0.13                                  | 0.29                                | <b>1.11</b>                                      |
| Wi-Fi (5G)       | 0.52                        | <0.10                                 | 0.29                                | 0.81                                             |
| BT               | 0.19                        | <0.10                                 | 0.39                                | 0.56                                             |
| Date of Testing: | May 3, 2019~ May 7, 2019    |                                       |                                     |                                                  |

Note: 1) The highest Reported SAR for head, body-worn, hotspot, Product Specific 10-g SAR and simultaneous transmission exposure conditions are 0.76 W/kg, 0.51 W/kg, 0.74 W/kg, 1.11 W/kg and 1.57W/kg.

2) Stand-alone SAR evaluation is not required for BT (Product Specific 10-g SAR), more details information see section 10.2

3) For body worn operation, this device has been tested and meets FCC RF exposure guidelines when used with any accessory that contains no metal and that positions the handset a minimum of 15mm from the body. Use of other accessories may not ensure compliance with FCC RF exposure guidelines.

The device is in compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits according to the FCC rule § 2.1093, the ANSI C95.1: 1992/IEEE C95.1: 1991, and had been tested in accordance with the measurement methods and procedures specified in IEEE Std 1528-2013.

**VOG-L29m (R1904H0089-S1) is a variant model of VOG-L04m (R1904H0073-S1).**

**The detailed product change description please refers to the ANNEX N.**

**Tested band refer to the following table.**

| <b>Band</b>   | <b>Original<br/>(R1904H0073-S1)</b> | <b>Variant<br/>(R1904H0089-S1)</b>      |
|---------------|-------------------------------------|-----------------------------------------|
| GSM 850       | Pass                                | Only tested with worst case of Original |
| GSM 1900      | Pass                                | Only tested with worst case of Original |
| WCDMA Band II | Pass                                | Only tested with worst case of Original |
| WCDMA Band IV | Pass                                | Only tested with worst case of Original |
| WCDMA Band V  | Pass                                | Only tested with worst case of Original |
| LTE FDD 2     | Pass                                | Only tested with worst case of Original |
| LTE FDD 4     | Pass                                | Only tested with worst case of Original |
| LTE FDD 5     | Pass                                | Only tested with worst case of Original |
| LTE FDD 7     | Pass                                | All tested, Pass                        |
| LTE FDD 12    | Pass                                | Only tested with worst case of Original |
| LTE FDD 17    | Pass                                | Only tested with worst case of Original |
| LTE FDD 26    | Pass                                | Only tested with worst case of Original |
| LTE TDD 38    | Pass                                | Only tested with worst case of Original |
| LTE TDD 41    | Pass                                | Only tested with worst case of Original |
| Wi-Fi (2.4G)  | Pass                                | Only tested with worst case of Original |
| Wi-Fi (5G)    | Pass                                | Only tested with worst case of Original |
| BT            | Pass                                | Only tested with worst case of Original |

### 3 Description of Equipment under Test

#### Client Information

|                             |                                                                                                                                  |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>Applicant</b>            | Huawei Technologies Co., Ltd.                                                                                                    |
| <b>Applicant address</b>    | Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, P.R.China. |
| <b>Manufacturer</b>         | Huawei Technologies Co., Ltd.                                                                                                    |
| <b>Manufacturer address</b> | Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, P.R.China. |

#### General Technologies

|                      |                                                                                                                                       |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Application Purpose: | Original Grant                                                                                                                        |
| EUT Stage:           | Identical Prototype                                                                                                                   |
| Model:               | VOG-L29m, VOG-L09m                                                                                                                    |
| IMEI:                | BDM0119312000031 (Battery 1)<br>BDM0119302000075 (Battery 2)                                                                          |
| Hardware Version:    | HL5VOGUEM                                                                                                                             |
| Software Version:    | 9.1.0.130(SP2C432E131R1P5)                                                                                                            |
| Antenna Type:        | Internal Antenna                                                                                                                      |
| Device Class:        | B                                                                                                                                     |
| Wi-Fi Hotspot:       | Wi-Fi 2.4G<br>Wi-Fi 5G U-NII-1&U-NII-3                                                                                                |
| Power Class:         | GSM 850:4<br>GSM 1900:1<br>UMTS Band II/IV/V:3<br>LTE FDD 2/4/5/7/12/17/26:3<br>LTE TDD 38/41:3                                       |
| Power Level:         | GSM 850:level 5<br>GSM 1900:level 0<br>UMTS Band II/IV/V:all up bits<br>LTE FDD 2/4/5/7/12/17/26:max power<br>LTE TDD 38/41:max power |
| EUT Accessory        |                                                                                                                                       |
| Battery 1            | Manufacturer: Huawei Technologies Co., Ltd.<br>(SCUD (Fujian) Electronics Co., LTD.)<br>Model: HB486486ECW<br>SN: 6DUNACI724G00064    |
| Battery 2            | Manufacturer: Huawei Technologies Co., Ltd.<br>(Desay Battery Electronic Co.,LTD)<br>Model: HB486486ECW                               |



|            |                                                                                          |
|------------|------------------------------------------------------------------------------------------|
|            | SN: 5WNDAYI726X00085                                                                     |
| Earphone 1 | Manufacturer: Jiangxi Lianchuang Hongsheng Electronic Co. ,LTD<br>Model: MEND1632B729000 |
| Earphone 2 | Manufacturer: GoerTek Inc.<br>Model: Windy-C                                             |
| Earphone 3 | Manufacturer: Boluo County Quancheng Electronic Co.,ltd<br>Model: 1331-3301-6001-TC-296  |
| Earphone 4 | Manufacturer: Foster Electric Co.,(GuangZhou)LTD.Sales Dep.<br>Model: 618017             |

| Difference Configuration Statement                                                                                                                                                                                    |                 |                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------|
| Configuration                                                                                                                                                                                                         | Configuration 1 | Configuration 2 |
| Model                                                                                                                                                                                                                 | VOG-L29m        | VOG-L09m        |
| SIM Card Slot                                                                                                                                                                                                         | SIM 1, SIM 2    | SIM 1           |
| Others                                                                                                                                                                                                                | The same        | The same        |
| The only difference between VOG-L29m and VOG-L09m is that VOG-L09m deletes into single SIM card by software. Other parts of the two models are the same. However, only the model of VOG-L29m is refer to this report. |                 |                 |

**Wireless Technology and Frequency Range**

| Wireless Technology |                                                                                                                        | Modulation                | Operating mode                                                                                                  | Tx (MHz)                   |
|---------------------|------------------------------------------------------------------------------------------------------------------------|---------------------------|-----------------------------------------------------------------------------------------------------------------|----------------------------|
| GSM                 | 850                                                                                                                    | Voice(GMSK)<br>GPRS(GMSK) | <input type="checkbox"/> Multi-slot Class:8-1UP<br><input type="checkbox"/> Multi-slot Class:10-2UP             | 824 ~ 849                  |
|                     | 1900                                                                                                                   | EGPRS(GMSK,8PSK)          | <input checked="" type="checkbox"/> Multi-slot Class:12-4UP<br><input type="checkbox"/> Multi-slot Class:33-4UP | 1850 ~ 1910                |
|                     | Does this device support DTM (Dual Transfer Mode)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |                           |                                                                                                                 |                            |
| UMTS                | Band II                                                                                                                | QPSK                      | HSDPA UE Category:14                                                                                            | 1850 ~ 1910                |
|                     | Band IV                                                                                                                |                           | HSUPA UE Category:6                                                                                             | 1710 ~ 1755                |
|                     | Band V                                                                                                                 |                           | DC-HSDPA UE Category:24                                                                                         | 824 ~ 849                  |
| LTE                 | FDD 2                                                                                                                  | QPSK, 16QAM,<br>64QAM     | Rel.13 /Category 21                                                                                             | 1850 ~ 1910                |
|                     | FDD 4                                                                                                                  |                           |                                                                                                                 | 1710 ~ 1755                |
|                     | FDD 5                                                                                                                  |                           |                                                                                                                 | 824 ~ 849                  |
|                     | FDD 7                                                                                                                  |                           |                                                                                                                 | 2500 ~ 2570                |
|                     | FDD 12                                                                                                                 |                           |                                                                                                                 | 699 ~ 716                  |
|                     | FDD 17                                                                                                                 |                           |                                                                                                                 | 704 ~ 716                  |
|                     | FDD 26                                                                                                                 |                           |                                                                                                                 | 814 ~ 849                  |
|                     | TDD 38                                                                                                                 |                           |                                                                                                                 | 2570 ~ 2620                |
|                     | TDD 41                                                                                                                 |                           |                                                                                                                 | 2535 ~ 2655                |
|                     | Does this device support Carrier Aggregation (CA) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  |                           |                                                                                                                 |                            |
|                     | Does this device support SV-LTE (1xRTT-LTE)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No       |                           |                                                                                                                 |                            |
|                     | BT                                                                                                                     | 2.4G                      | Version 5.0 LE                                                                                                  |                            |
| Wi-Fi               | 2.4G                                                                                                                   | DSSS,OFDM                 | 802.11b/g/n HT20                                                                                                | 2412 ~ 2462                |
|                     |                                                                                                                        | OFDM                      | 802.11n HT40                                                                                                    | 2422 ~ 2452                |
|                     | 5G                                                                                                                     | OFDM                      | 802.11a/n HT20/ HT40/<br>ac VHT20/VHT40/VHT80                                                                   | 5150 ~ 5350<br>5470 ~ 5850 |
|                     | Does this device support MIMO <input checked="" type="checkbox"/> Yes (2TX, 2RX) <input type="checkbox"/> No           |                           |                                                                                                                 |                            |
| NFC                 |                                                                                                                        | 13.56MHz                  |                                                                                                                 |                            |
| Wireless Charging   |                                                                                                                        | 110kHz-148kHz             |                                                                                                                 |                            |

## 4 Test Specification, Methods and Procedures

The tests documented in this report were performed in accordance with FCC 47 CFR § 2.1093, IEEE 1528- 2013, ANSI C95.1: 1992/IEEE C95.1: 1991, the following FCC Published RF exposure KDB procedures:

248227 D01 802.11Wi-Fi SAR v02r02  
447498 D01 General RF Exposure Guidance v06  
648474 D04 Handset SAR v01r03  
690783 D01 SAR Listings on Grants v01r03  
865664 D01 SAR measurement 100 MHz to 6 GHz v01r04  
865664 D02 RF Exposure Reporting v01r02  
941225 D01 3G SAR Procedures v03r01  
941225 D05 SAR for LTE Devices v02r05  
941225 D05A LTE Rel.10 KDB Inquiry Sheet v01r02  
941225 D06 Hotspot Mode v02r01  
616217 D04 SAR for laptop and tablets v01r02

## 5 Operational Conditions during Test

### 5.1 Test Positions

#### 5.1.1 Against Phantom Head

Measurements were made in “cheek” and “tilt” positions on both the left hand and right hand sides of the phantom.

The positions used in the measurements were according to IEEE 1528 - 2013 "IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate(SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques".

#### 5.1.2 Body Worn Configuration

Body-worn operating configurations should be tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in normal use configurations.

Per FCC KDB Publication 648474 D04, Body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in FCC KDB Publication 447498 D01 should be used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode, when applicable. When the reported SAR for a body-worn accessory, measured without a headset connected to the handset, is  $> 1.2 \text{ W/kg}$ , the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a headset attached to the handset.

Accessories for Body-worn operation configurations are divided into two categories: those that do not contain metallic components and those that do contain metallic components. When multiple accessories that do not contain metallic components are supplied with the device, the device is tested with only the accessory that dictates the closest spacing to the body. Then multiple accessories that contain metallic components are tested with the device with each accessory. If multiple accessories share an identical metallic component (i.e. the same metallic belt-clip used with different holsters with no other metallic components) only the accessory that dictates the closest spacing to the body is tested.

Body-worn accessories may not always be supplied or available as options for some devices intended to be authorized for body-worn use. In this case, a test configuration with a separation distance between the back of the device and the flat phantom is used. Test position spacing was documented. Transmitters that are designed to operate in front of a person's face, as in push-to-talk configurations, are tested for SAR compliance with the front of the device positioned to face the flat phantom in head fluid. For devices that are carried next to the body such as a shoulder, waist or chest-worn transmitters, SAR compliance is tested with the accessories, including headsets and microphones, attached to the device and positioned against a flat phantom in a normal use configuration.

### 5.1.3 Phablet SAR test considerations

For smart phones, with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm, that can provide similar mobile web access and multimedia support found in mini-tablets or UMPC mini-tablets and support voice calls next to the ear, unless it is confirmed otherwise through KDB inquiries, the following phablet procedures should be applied to evaluate SAR compliance for each applicable wireless modes and frequency band. Devices marketed as phablets, regardless of form factors and operating characteristics must be tested as a phablet to determine SAR compliance.

- a) The normally required head and body-worn accessory SAR test procedures for handsets, including hotspot mode, must be applied.
- b) The UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna located at  $\leq 25$  mm from that surface or edge, in direct contact with a flat phantom, for product specific 10-g SAR according to the body-equivalent tissue dielectric parameters in KDB Publication 865664 D01 to address interactive hand use exposure conditions. The 1-g SAR at 5 mm for UMPC mini-tablets is not required. When hotspot mode applies, product specific 10-g SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg; however, when power reduction applies to hotspot mode the measured SAR must be scaled to the maximum output power, including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold. The normal tablet procedures in KDB Publication 616217 are required when the overall diagonal dimension of the device is > 20.0 cm. Hotspot mode SAR is not required when normal tablet procedures are applied. Product specific 10-g SAR is also not required for the front (top) surface of larger form factor full size tablets. The more conservative normal tablet SAR results can be used to support phablet mode product specific 10-g SAR.
- c) The simultaneous transmission operating configurations applicable to voice and data transmissions for both phone and mini-tablet modes must be taken into consideration separately for 1-g and 10-g SAR to determine the simultaneous transmission SAR test exclusion and measurement requirements for the relevant wireless modes and exposure conditions.

## 5.2 Measurement Variability

Per FCC KDB Publication 865664 D01, SAR measurement variability was assessed for each frequency band, which was determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media were required for SAR measurements in a frequency band, the variability measurement procedures were applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium. These additional measurements were repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device was returned to ambient conditions (normal room temperature) with the battery fully charged before it was re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

SAR Measurement Variability was assessed using the following procedures for each frequency band:

- 1) When the original highest measured SAR is  $\geq 0.80$  W/kg, the measurement was repeated once.
- 2) A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was  $> 1.20$  or when the original or repeated measurement was  $\geq 1.45$  W/kg ( $\sim 10\%$  from the 1-g SAR limit).
- 3) A third repeated measurement was performed only if the original, first or second repeated measurement was  $\geq 1.5$  W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is  $> 1.20$ .
- 4) Repeated measurements are not required when the original highest measured SAR is  $< 0.80$  W/kg

The same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.

## 5.3 Test Configuration

### 5.3.1 GSM Test Configuration

According to specification 3GPP TS 51.010, the maximum power of the GSM can do the power reduction for the multi-slot. The allowed power reduction in the multi-slot configuration is as following:

Output power of reductions:

**Table 2: The allowed power reduction in the multi-slot configuration**

| Number of timeslots in uplink assignment | Permissible nominal reduction of maximum output power,(dB) |
|------------------------------------------|------------------------------------------------------------|
| 1                                        | 0                                                          |
| 2                                        | 0 to 3,0                                                   |
| 3                                        | 1,8 to 4,8                                                 |
| 4                                        | 3,0 to 6,0                                                 |

SAR test reduction for GPRS and EDGE modes is determined by the source-based time-averaged output power specified for production units, including tune-up tolerance. The data mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested. GSM voice and GPRS data use GMSK, which is a constant amplitude modulation with minimal peak to average power difference within the time-slot burst. For EDGE, GMSK is used for MCS 1 – MCS 4 and 8-PSK is used for MCS 5 – MCS 9; where 8-PSK has an inherently higher peak-to-average power ratio. The GMSK and 8-PSK EDGE configurations are considered separately for SAR compliance. The GMSK EDGE configurations are grouped with GPRS and considered with respect to time-averaged maximum output power to determine compliance. The 3G SAR test reduction procedure is applied to 8-PSK EDGE with GMSK GPRS/EDGE as the primary mode.

### 5.3.2 UMTS Test Configuration

#### 5.3.2.1 3G SAR Test Reduction Procedure

The default test configuration is to measure SAR with an established radio link between the EUT and a communication test set using a 12.2 kbps RMC (reference measurement channel) configured in Test Loop Mode 1. SAR is selectively confirmed for other physical channel configurations modes according to output power, exposure conditions and device operating capabilities. Maximum output power is verified by applying the applicable versions of 3GPP TS 34.121.

#### 5.3.2.2 Head SAR

SAR for next to the ear head exposure is measured using a 12.2 kbps RMC with TPC bits configured to all “1’s”. The 3G SAR test reduction procedure is applied to AMR configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for 12.2 kbps AMR in 3.4 kbps SRB (signaling radio bearer) using the highest SAR configuration in 12.2 kbps RMC for head exposure.

#### 5.3.2.3 Body-worn accessory SAR

SAR for body-worn accessory configurations is measured using a 12.2 kbps RMC with TPC bits

configured to all “1’s”. The 3G SAR test reduction procedure is applied to other spreading codes and multiple DPDCHn configurations supported by the EUT with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured using an applicable RMC configuration with the corresponding spreading code or DPDCHn, for the highest reported body-worn accessory exposure SAR configuration in 12.2 kbps RMC. When more than 2 DPDCHn are supported by the EUT, it may be necessary to configure additional DPDCHn using FTM (Factory Test Mode) or other chipset based test approaches with parameters similar to those used in 384 kbps and 768 kbps RMC

#### 5.3.2.4 Release 5 HSDPA Test Configuration

The 3G SAR test reduction procedure is applied to HSDPA body-worn accessory configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for HSDPA using the HSDPA body SAR procedures in the “Release 5 HSDPA Data Devices” section of this document, for the highest SAR body-worn accessory exposure configuration in 12.2 kbps RMC. EUT with both HSDPA and HSUPA are tested according to Release 6 HSPA test procedures.

HSDPA should be configured according to the UE category of a test device. The number of HSDSCH/ HS-PDSCHs, HARQ processes, minimum inter-TTI interval, transport block sizes and RV coding sequence are defined by the H-set. To maintain a consistent test configuration and stable transmission conditions, QPSK is used in the H-set for SAR testing. HS-DPCCH should be configured with a CQI feedback cycle of 4 ms with a CQI repetition factor of 2 to maintain a constant rate of active CQI slots. DPCCH and DPDCH gain factors( $\beta_c$ ,  $\beta_d$ ), and HS-DPCCH power offset parameters ( $\Delta_{ACK}$ ,  $\Delta_{NACK}$ ,  $\Delta_{CQI}$ ) should be set according to values indicated in the Table below. The CQI value is determined by the UE category, transport block size, number of HS-PDSCHs and modulation used in the H-set.

**Table 3: Subtests for UMTS Release 5 HSDPA**

| Sub-set                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | $\beta_c$         | $\beta_d$         | $\beta_d$<br>(SF) | $\beta_c/\beta_d$ | $\beta_{hs}$<br>(note 1, note 2) | CM(dB)<br>(note 3) | MPR(dB) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------|-------------------|-------------------|----------------------------------|--------------------|---------|
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2/15              | 15/15             | 64                | 2/15              | 4/15                             | 0.0                | 0.0     |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 12/15<br>(note 4) | 15/15<br>(note 4) | 64                | 12/15<br>(note 4) | 24/15                            | 1.0                | 0.0     |
| 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 15/15             | 8/15              | 64                | 15/8              | 30/15                            | 1.5                | 0.5     |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 15/15             | 4/15              | 64                | 15/4              | 30/15                            | 1.5                | 0.5     |
| <p>Note1: <math>\Delta_{ACK}</math>, <math>\Delta_{NACK}</math> and <math>\Delta_{CQI} = 8 \Leftrightarrow A_{hs} = \beta_{hs}/\beta_c = 30/15 \Leftrightarrow \beta_{hs} = 30/15 * \beta_c</math></p> <p>Note2: CM=1 for <math>\beta_c/\beta_d = 12/15</math>, <math>\beta_{hs}/\beta_c = 24/15</math>.</p> <p>Note3: For subtest 2 the <math>\beta_c/\beta_d</math> ratio of 12/15 for the TFC during the measurement period(TF1,TF0) is achieved by setting the signaled gain factors for the reference TFC (TFC1,TF1) to <math>\beta_c = 11/15</math> and <math>\beta_d = 15/15</math>.</p> |                   |                   |                   |                   |                                  |                    |         |

#### 5.3.2.5 Release 6 HSUPA Test Configuration

The 3G SAR test reduction procedure is applied to HSPA (HSUPA/HSDPA with RMC) body-worn accessory configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for HSPA using the HSPA body SAR procedures in the “Release 6 HSPA Data Devices” section of this document, for the highest body-worn accessory exposure SAR configuration in 12.2 kbps RMC.



When VOIP is applicable for next to the ear head exposure in HSPA, the 3G SAR test reduction procedure is applied to HSPA with 12.2 kbps RMC as the primary mode; otherwise, the same HSPA configuration used for body-worn accessory measurements is tested for next to the ear head exposure.

Due to inner loop power control requirements in HSPA, a communication test set is required for output power and SAR tests. The 12.2 kbps RMC, FRC H-set 1 and E-DCH configurations for HSPA are configured according to the  $\beta$  values indicated in Table 2 and other applicable procedures described in the 'WCDMA EUT and 'Release 5 HSDPA Data Devices' sections of this document

**Table 4: Sub-Test 5 Setup for Release 6 HSUPA**

| Sub-set | $\beta_c$            | $\beta_d$            | $\beta_d$<br>(SF) | $\beta_c/\beta_d$    | $\beta_{hs}^{(1)}$ | $\beta_{ec}$ | $\beta_{ed}$                               | $\beta_{ed}$<br>(SF) | $\beta_{ed}$<br>(codes) | CM <sup>(2)</sup><br>(dB) | MPR<br>(dB) | AG <sup>(4)</sup><br>Index | E-TFCI |
|---------|----------------------|----------------------|-------------------|----------------------|--------------------|--------------|--------------------------------------------|----------------------|-------------------------|---------------------------|-------------|----------------------------|--------|
| 1       | 11/15 <sup>(3)</sup> | 15/15 <sup>(3)</sup> | 64                | 11/15 <sup>(3)</sup> | 22/15              | 209/225      | 1039/225                                   | 4                    | 1                       | 1.0                       | 0.0         | 20                         | 75     |
| 2       | 6/15                 | 15/15                | 64                | 6/15                 | 12/15              | 12/15        | 94/75                                      | 4                    | 1                       | 3.0                       | 2.0         | 12                         | 67     |
| 3       | 15/15                | 9/15                 | 64                | 15/9                 | 30/15              | 30/15        | $\beta_{ed1}$ 47/15<br>$\beta_{ed2}$ 47/15 | 4                    | 2                       | 2.0                       | 1.0         | 15                         | 92     |
| 4       | 2/15                 | 15/15                | 64                | 2/15                 | 4/15               | 2/15         | 56/75                                      | 4                    | 1                       | 3.0                       | 2.0         | 17                         | 71     |
| 5       | 15/15 <sup>(4)</sup> | 15/15 <sup>(4)</sup> | 64                | 15/15 <sup>(4)</sup> | 30/15              | 24/15        | 134/15                                     | 4                    | 1                       | 1.0                       | 0.0         | 21                         | 81     |

Note 1:  $\Delta_{ACK}$ ,  $\Delta_{NACK}$  and  $\Delta_{CQI} = 8 \Leftrightarrow A_{hs} = \beta_{hs}/\beta_c = 30/15 \Leftrightarrow \beta_{hs} = 30/15 * \beta_c$ .

Note 2: CM = 1 for  $\beta_c/\beta_d = 12/15$ ,  $\beta_{hs}/\beta_c = 24/15$ . For all other combinations of DPDCH, DPCCH, HS-DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.

Note 3: For subtest 1 the  $\beta_c/\beta_d$  ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to  $\beta_c = 10/15$  and  $\beta_d = 15/15$ .

Note 4: For subtest 5 the  $\beta_c/\beta_d$  ratio of 15/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to  $\beta_c = 14/15$  and  $\beta_d = 15/15$ .

Note 5: Testing UE using E-DPDCH Physical Layer category 1 Sub-test 3 is not required according to TS 25.306 Figure 5.1g.

Note 6:  $\beta_{ed}$  can not be set directly; it is set by Absolute Grant Value.

**Table 5: HSUPA UE category**

| UE<br>E-DCH<br>Category | Maximum<br>E-DCH<br>Codes<br>Transmitted | Number<br>of HARQ<br>Processes | E-<br>DCH<br>TTI<br>(ms) | Minimum Spreading<br>Factor | Maximum<br>E-DCH<br>Transport<br>Block Bits | Max<br>Rate<br>(Mbps) |
|-------------------------|------------------------------------------|--------------------------------|--------------------------|-----------------------------|---------------------------------------------|-----------------------|
| 1                       | 1                                        | 4                              | 10                       | 4                           | 7110                                        | 0.7296                |
| 2                       | 2                                        | 8                              | 2                        | 4                           | 2798                                        | 1.4592                |
|                         | 2                                        | 4                              | 10                       | 4                           | 14484                                       |                       |
| 3                       | 2                                        | 4                              | 10                       | 4                           | 14484                                       | 1.4592                |
| 4                       | 2                                        | 8                              | 2                        | 2                           | 5772                                        | 2.9185                |
|                         | 2                                        | 4                              | 10                       | 2                           | 20000                                       | 2.00                  |
| 5                       | 2                                        | 4                              | 10                       | 2                           | 20000                                       | 2.00                  |
| 6                       | 4                                        | 8                              | 2                        | 2 SE2 & 2 SE4               | 11484                                       | 5.76                  |

|            |   |   |    |               |       |      |
|------------|---|---|----|---------------|-------|------|
| (No DPDCH) | 4 | 4 | 10 |               | 20000 | 2.00 |
| 7          | 4 | 8 | 2  | 2 SF2 & 2 SF4 | 22996 | ?    |
| (No DPDCH) | 4 | 4 | 10 |               | 20000 | ?    |

NOTE: When 4 codes are transmitted in parallel, two codes shall be transmitted with SF2 and two with SF4.  
 UE Categories 1 to 6 supports QPSK only. UE Category 7 supports QPSK and 16QAM.  
 (TS25.306-7.3.0)

### 5.3.2.6 HSPA and DC-HSDPA Test Configuration

SAR test exclusion may apply to 3GPP Rel. 6 HSPA and Rel. 8 DC-HSDPA. When SAR measurement is required for HSPA or DC-HSDPA, a KDB inquiry is required to confirm that the wireless mode configurations in the test setup have remained stable throughout the SAR measurements. Without prior KDB confirmation to determine the SAR results are acceptable, a PAG is required for equipment approval.

SAR test exclusion for HSPA and DC-HSDPA is determined according to the following:

- 1) The HSPA procedures are applied to configure 3GPP Rel. 6 HSPA devices in the required sub-test mode(s) to determine SAR test exclusion.
- 2) SAR is required for Rel. 8 DC-HSDPA when SAR is required for Rel. 5 HSDPA; otherwise, the 3G SAR test reduction procedure is applied to DC-HSDPA with 12.2 kbps RMC as the primary mode. Power is measured for DC-HSDPA according to the H-Set 12, FRC configuration in Table C.8.1.12 of 3GPP TS 34.121-1 to determine SAR test reduction. A primary and a secondary serving HS-DSCH Cell are required to perform the power measurement and for the results to be acceptable.
- 3) Regardless of whether a PBA is required, the following information must be verified and included in the SAR report for devices supporting HSPA or DC-HSDPA:
  - a) The output power measurement results and applicable release version(s) of 3GPP TS 34.121.
  - i) Power measurement difficulties due to test equipment setup or availability must be resolved between the grantee and its test lab.
  - b) The power measurement results are in agreement with the individual device implementation and specifications. When Enhanced MPR (E-MPR) applies, the normal MPR targets may be modified according to the Cubic Metric (CM) measured by the device, which must be taken into consideration.
  - c) The UE category, operating parameters, such as the  $\beta$  and  $\Delta$  values used to configure the device for testing, power setback procedures described in 3GPP TS 34.121 for the power measurements, and HSPA channel conditions (active and stable) for the entire duration of the measurement according to the required E-TFCI and AG index values.
- 4) When SAR measurement is required, the test configurations, procedures and power measurement results must be clearly described to confirm that the required test parameters are used, including E-TFCI and AG index stability and output power conditions.

**Table 6: HS-DSCH UE category**

**Table 5.1a: FDD HS-DSCH physical layer categories**

| HS-DSCH category      | Maximum number of HS-DSCH codes received | Minimum inter-TTI interval | Maximum number of bits of an HS-DSCH transport block received within an HS-DSCH TTI<br>NOTE 1 | Total number of soft channel bits | Supported modulations without MIMO operation or dual cell operation | Supported modulations with MIMO operation and without dual cell operation | Supported modulations with dual cell operation     |
|-----------------------|------------------------------------------|----------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------------|----------------------------------------------------|
| Category 1            | 5                                        | 3                          | 7298                                                                                          | 19200                             | QPSK, 16QAM                                                         | Not applicable (MIMO not supported)                                       | Not applicable (dual cell operation not supported) |
| Category 2            | 5                                        | 3                          | 7298                                                                                          | 28800                             |                                                                     |                                                                           |                                                    |
| Category 3            | 5                                        | 2                          | 7298                                                                                          | 28800                             |                                                                     |                                                                           |                                                    |
| Category 4            | 5                                        | 2                          | 7298                                                                                          | 38400                             |                                                                     |                                                                           |                                                    |
| Category 5            | 5                                        | 1                          | 7298                                                                                          | 57600                             |                                                                     |                                                                           |                                                    |
| Category 6            | 5                                        | 1                          | 7298                                                                                          | 67200                             |                                                                     |                                                                           |                                                    |
| Category 7            | 10                                       | 1                          | 14411                                                                                         | 115200                            |                                                                     |                                                                           |                                                    |
| Category 8            | 10                                       | 1                          | 14411                                                                                         | 134400                            |                                                                     |                                                                           |                                                    |
| Category 9            | 15                                       | 1                          | 20251                                                                                         | 172800                            |                                                                     |                                                                           |                                                    |
| Category 10           | 15                                       | 1                          | 27952                                                                                         | 172800                            |                                                                     |                                                                           |                                                    |
| Category 11           | 5                                        | 2                          | 3630                                                                                          | 14400                             | QPSK                                                                |                                                                           |                                                    |
| Category 12           | 5                                        | 1                          | 3630                                                                                          | 28800                             |                                                                     |                                                                           |                                                    |
| Category 13           | 15                                       | 1                          | 35280                                                                                         | 259200                            | QPSK, 16QAM, 64QAM                                                  |                                                                           |                                                    |
| Category 14           | 15                                       | 1                          | 42192                                                                                         | 259200                            |                                                                     |                                                                           |                                                    |
| Category 15           | 15                                       | 1                          | 23370                                                                                         | 345600                            | QPSK, 16QAM                                                         |                                                                           |                                                    |
| Category 16           | 15                                       | 1                          | 27952                                                                                         | 345600                            |                                                                     |                                                                           |                                                    |
| Category 17<br>NOTE 2 | 15                                       | 1                          | 35280                                                                                         | 259200                            | QPSK, 16QAM, 64QAM                                                  | –                                                                         |                                                    |
|                       |                                          |                            | 23370                                                                                         | 345600                            | –                                                                   | QPSK, 16QAM                                                               |                                                    |
| Category 18<br>NOTE 3 | 15                                       | 1                          | 42192                                                                                         | 259200                            | QPSK, 16QAM, 64QAM                                                  | –                                                                         |                                                    |
|                       |                                          |                            | 27952                                                                                         | 345600                            | –                                                                   | QPSK, 16QAM                                                               |                                                    |
| Category 19           | 15                                       | 1                          | 35280                                                                                         | 518400                            | QPSK, 16QAM, 64QAM                                                  |                                                                           |                                                    |
| Category 20           | 15                                       | 1                          | 42192                                                                                         | 518400                            |                                                                     |                                                                           |                                                    |
| Category 21           | 15                                       | 1                          | 23370                                                                                         | 345600                            | -                                                                   | -                                                                         | QPSK, 16QAM                                        |
| Category 22           | 15                                       | 1                          | 27952                                                                                         | 345600                            |                                                                     |                                                                           | QPSK, 16QAM, 64QAM                                 |
| Category 23           | 15                                       | 1                          | 35280                                                                                         | 518400                            |                                                                     |                                                                           |                                                    |
| Category 24           | 15                                       | 1                          | 42192                                                                                         | 518400                            |                                                                     |                                                                           |                                                    |

### 5.3.3 LTE Test Configuration

LTE modes were tested according to FCC KDB 941225 D05 publication. Please see notes after the tabulated SAR data for required test configurations. Establishing connections with base station simulators ensure a consistent means for testing SAR and are recommended for evaluating SAR [4]. The R&S CMW500 was used for LTE output power measurements and SAR testing. Max power control was used so the UE transmits with maximum output power during SAR testing. SAR must be measured with the maximum TTI (transmit time interval) supported by the device in each LTE configuration.

#### A) Spectrum Plots for RB Configurations

A properly configured base station simulator was used for SAR tests and power measurements. Therefore, spectrum plots for RB configurations were not required to be included in this report.

#### B) MPR

MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to

3GPP TS36.101 Section 6.2.3 – 6.2.5 under Table 6.2.3-1.

### C)A-MPR

A-MPR (Additional MPR) has been disabled for all SAR tests by setting NS=01 on the base station simulator.

### D) Largest channel bandwidth standalone SAR test requirements

#### 1) QPSK with 1 RB allocation

Start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel. When the reported SAR is  $\leq 0.8$  W/kg, testing of the remaining RB offset configurations and required test channels is not required for 1 RB allocation; otherwise, SAR is required for the remaining required test channels and only for the RB offset configuration with the highest output power for that channel. When the reported SAR of a required test channel is  $> 1.45$  W/kg, SAR is required for all three RB offset configurations for that required test channel.

#### 2) QPSK with 50% RB allocation

The procedures required for 1 RB allocation in 1) are applied to measure the SAR for QPSK with 50% RB allocation.

#### 3) QPSK with 100% RB allocation

For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation in 1) and 2) are  $\leq 0.8$  W/kg. Otherwise, SAR is measured for the highest output power channel and if the reported SAR is  $> 1.45$  W/kg, the remaining required test channels must also be tested.

#### 4) Higher order modulations

For each modulation besides QPSK; e.g., 16-QAM, 64-QAM, apply the QPSK procedures in above sections to determine the QAM configurations that may need SAR measurement. For each configuration identified as required for testing, SAR is required only when the highest maximum output power for the configuration in the higher order modulation is  $> \frac{1}{2}$  dB higher than the same configuration in QPSK or when the reported SAR for the QPSK configuration is  $> 1.45$  W/kg.

### E) Other channel bandwidth standalone SAR test requirements

For the other channel bandwidths used by the device in a frequency band, apply all the procedures required for the largest channel bandwidth in section A) to determine the channels and RB configurations that need SAR testing and only measure SAR when the highest maximum output power of a configuration requiring testing in the smaller channel bandwidth is  $> \frac{1}{2}$  dB higher than the equivalent channel configurations in the largest channel bandwidth configuration or the *reported* SAR of a configuration for the largest channel bandwidth is  $> 1.45$  W/kg.

### 5.3.4 Additional requirements for TDD LTE specification

For Time-Division Duplex (TDD) systems, SAR must be tested using a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by the defined 3GPP LTE TDD configurations.

TDD LTE Band supports 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table: Uplink-downlink configurations for uplink-downlink configurations and Table: Configuration of special subframe (lengths of DwPTS/GP/UpPTS) for Special subframe configurations.

Figure 1: Frame structure type 2

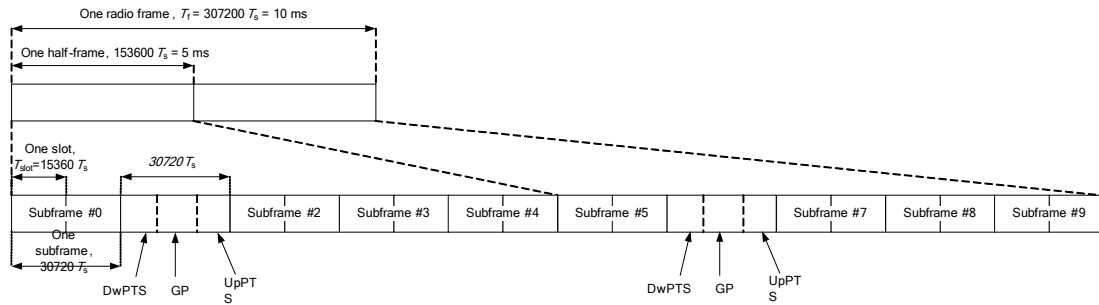


**Table 7: Configuration of special subframe (lengths of DwPTS/GP/UpPTS)**

| Special subframe configuration | Normal cyclic prefix in downlink |                                |                                  | Extended cyclic prefix in downlink |                                |                                  |
|--------------------------------|----------------------------------|--------------------------------|----------------------------------|------------------------------------|--------------------------------|----------------------------------|
|                                | DwPTS                            | UpPTS                          |                                  | DwPTS                              | UpPTS                          |                                  |
|                                |                                  | Normal cyclic prefix in uplink | Extended cyclic prefix in uplink |                                    | Normal cyclic prefix in uplink | Extended cyclic prefix in uplink |
| 0                              | $6592 \cdot T_s$                 | $2192 \cdot T_s$               | $2560 \cdot T_s$                 | $7680 \cdot T_s$                   | $2192 \cdot T_s$               | $2560 \cdot T_s$                 |
| 1                              | $19760 \cdot T_s$                |                                |                                  | $20480 \cdot T_s$                  |                                |                                  |
| 2                              | $21952 \cdot T_s$                |                                |                                  | $23040 \cdot T_s$                  |                                |                                  |
| 3                              | $24144 \cdot T_s$                |                                |                                  | $25600 \cdot T_s$                  |                                |                                  |
| 4                              | $26336 \cdot T_s$                | $4384 \cdot T_s$               | $5120 \cdot T_s$                 | $7680 \cdot T_s$                   | $4384 \cdot T_s$               | $5120 \cdot T_s$                 |
| 5                              | $6592 \cdot T_s$                 |                                |                                  | $20480 \cdot T_s$                  |                                |                                  |
| 6                              | $19760 \cdot T_s$                |                                |                                  | $23040 \cdot T_s$                  |                                |                                  |
| 7                              | $21952 \cdot T_s$                |                                |                                  | $12800 \cdot T_s$                  |                                |                                  |
| 8                              | $24144 \cdot T_s$                |                                |                                  | -                                  | -                              | -                                |
| 9                              | $13168 \cdot T_s$                |                                |                                  | -                                  | -                              | -                                |

**Table 8: Uplink-downlink configurations**

| Uplink-downlink configuration | Downlink-to-Uplink Switch-point periodicity | Subframe number |   |   |   |   |   |   |   |   |   |
|-------------------------------|---------------------------------------------|-----------------|---|---|---|---|---|---|---|---|---|
|                               |                                             | 0               | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 0                             | 5 ms                                        | D               | S | U | U | U | D | S | U | U | U |
| 1                             | 5 ms                                        | D               | S | U | U | D | D | S | U | U | D |
| 2                             | 5 ms                                        | D               | S | U | D | D | D | S | U | D | D |
| 3                             | 10 ms                                       | D               | S | U | U | U | D | D | D | D | D |
| 4                             | 10 ms                                       | D               | S | U | U | D | D | D | D | D | D |
| 5                             | 10 ms                                       | D               | S | U | D | D | D | D | D | D | D |
| 6                             | 5 ms                                        | D               | S | U | U | U | D | S | U | U | D |

According to Figure 1, one radio frame is configured by 10 subframes, which consist of Uplink-subframe, Downlink-subframe and Special subframe. For TDD-LTE, the Duty Cycle should be calculated on Uplink-subframes and Special subframes, due to Special subframe containing both Uplink transmissions. So for one radio frame, Duty Cycle can be calculated with formula as below. The count of Uplink subframes are according to Table: Uplink-downlink configurations:

$$\text{Duty cycle} = (30720T_s \cdot \text{Ups} + \text{Uplink Component} \cdot \text{Specials}) / (307200T_s)$$

About the uplink component of Special subframes, we can figure out by Table: Configuration of special subframe (lengths of DwPTS/GP/UpPTS):

$$\text{Uplink Component} = \text{UpPTS}$$

In conclusion, for the TDD LTE Band, Duty Cycle can be calculated with formula as below .all these



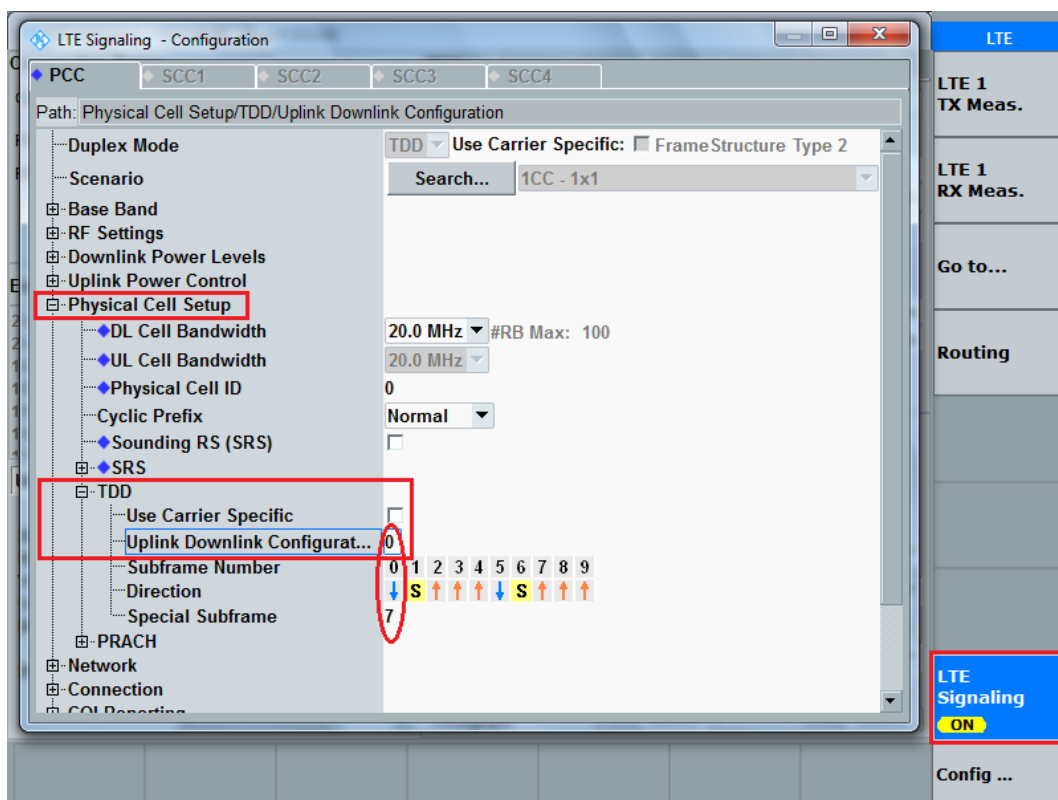
sets are ok when we test, or we can set as below.

$$\text{Duty cycle} = [(30720Ts * \text{Ups}) + \text{UpPTS} * \text{Specials}] / (30720Ts)$$

And we can get different Duty cycles under different configurations:

| Uplink-downlink configuration | Subframe number |   |   | Configuration of special subframe |                   |                                  |                   |                                    |                   |                                  |                   |
|-------------------------------|-----------------|---|---|-----------------------------------|-------------------|----------------------------------|-------------------|------------------------------------|-------------------|----------------------------------|-------------------|
|                               |                 |   |   | Normal cyclic prefix in downlink  |                   |                                  |                   | Extended cyclic prefix in downlink |                   |                                  |                   |
|                               |                 |   |   | Normal cyclic prefix in uplink    |                   | Extended cyclic prefix in uplink |                   | Normal cyclic prefix in uplink     |                   | Extended cyclic prefix in uplink |                   |
|                               | D               | S | U | configuration 0~4                 | configuration 5~9 | configuration 0~4                | configuration 5~9 | configuration 0~3                  | configuration 4~7 | configuration 0~3                | configuration 4~7 |
| 0                             | 2               | 2 | 6 | 61.43%                            | 62.85%            | 61.67%                           | 63.33%            | 61.43%                             | 62.85%            | 61.67%                           | 63.33%            |
| 1                             | 4               | 2 | 4 | 41.43%                            | 42.85%            | 41.67%                           | 43.33%            | 41.43%                             | 42.85%            | 41.67%                           | 43.33%            |
| 2                             | 6               | 2 | 2 | 21.43%                            | 22.85%            | 21.67%                           | 23.33%            | 21.43%                             | 22.85%            | 21.67%                           | 23.33%            |
| 3                             | 6               | 1 | 3 | 30.71%                            | 31.43%            | 30.83%                           | 31.67%            | 30.71%                             | 31.43%            | 30.83%                           | 31.67%            |
| 4                             | 7               | 1 | 2 | 20.71%                            | 21.43%            | 20.83%                           | 21.67%            | 20.71%                             | 21.43%            | 20.83%                           | 21.67%            |
| 5                             | 8               | 1 | 1 | 10.71%                            | 11.43%            | 10.83%                           | 11.67%            | 10.71%                             | 11.43%            | 10.83%                           | 11.67%            |
| 6                             | 3               | 2 | 5 | 51.43%                            | 52.85%            | 51.67%                           | 53.33%            | 51.43%                             | 52.85%            | 51.67%                           | 53.33%            |

SAR test Plan: For TDD LTE, SAR should be tested with the highest transmission duty factor (63.33%) using Uplink-downlink configuration 0 and Special subframe configuration 7 for Frame structure type



### 5.3.5 Wi-Fi Test Configuration

For Wi-Fi SAR testing, a communication link is set up with some command for Wi-Fi mode test. During the test, at the each test frequency channel, the EUT is operated at the RF continuous emission mode. Per KDB248227 D01, a minimum transmission duty factor of 85% is required to avoid certain hardware and device implementation issues related to wide range SAR scaling. The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit.

#### 5.3.5.1 Initial Test Position Procedure

For exposure condition with multiple test position, such as handsets operating next to the ear, devices with hotspot mode or UMPC mini-tablet, procedures for initial test position can be applied. Using the transmission mode determined by the DSSS procedure or initial test configuration, area scans are measured for all position in an exposure condition. The test position with the highest extrapolated(peak) SAR is used as the initial test position. When reported SAR for the initial test position is  $\leq 0.4\text{W/kg}$ , no additional testing for the remaining test position is required. Otherwise, SAR is evaluated at the subsequent highest peak SAR position until the reported SAR result is  $\leq 0.8\text{W/kg}$  or all test position are measured. For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is  $> 0.8\text{ W/kg}$ , SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is  $\leq 1.2\text{ W/kg}$  or all required channels are tested.

#### 5.3.5.2 Initial Test Configuration Procedure

An initial test configuration is determined for OFDM transmission modes according to the channel bandwidth, modulation and data rate combination(s) with the highest maximum output power specified for production units in each standalone and aggregated frequency band. SAR is measured using the highest measured maximum output power channel. For configurations with the same specified or measured maximum output power, additional transmission mode and test channel selection procedures are required (see section 5.3.2 of KDB248227 D01). SAR test reduction of subsequent highest output test channels is based on the reported SAR of the initial test configuration.

For next to the ear, hotspot mode and UMC mini-tablet exposure configurations where multiple test positions are required, the initial test position procedure is applied to minimize the number of test positions required for SAR measurement using the initial test configuration transmission mode. For fixed exposure conditions that do not have multiple SAR test positions, SAR is measured in the transmission mode determined by the initial test configuration.

When the reported SAR of the initial test configuration is  $> 0.8\text{ W/kg}$ , SAR measurement is required for the subsequent next highest measured output power channel(s) in the initial test configuration until the reported SAR is  $\leq 1.2\text{ W/kg}$  or all required channels are tested.

#### 5.3.5.3 Sub Test Configuration Procedure

SAR measurement requirements for the remaining 802.11 transmission mode configurations that have not been tested in the initial test configuration are determined separately for each standalone and aggregated frequency band, in each exposure condition, according to the maximum output power specified for production units.

When the highest reported SAR for the initial test configuration, according to the initial test position or fixed exposure position requirements, is adjusted by the ratio of the subsequent test configuration to initial test configuration specified maximum output power and the adjusted SAR is  $\leq 1.2$  W/kg, SAR is not required for that subsequent test configuration.

#### 5.3.5.4 Wi-Fi 2.4G SAR Test Procedures

Separate SAR procedures are applied to DSSS and OFDM configurations in the 2.4 GHz band to simplify DSSS test requirements. For 802.11b DSSS SAR measurements, DSSS SAR procedure applies to fixed exposure test position and initial test position procedure applies to multiple exposure test positions.

##### A) 802.11b DSSS SAR Test Requirements

SAR is measured for 2.4 GHz 802.11b DSSS using either a fixed test position or, when applicable, the initial test position procedure. SAR test reduction is determined according to the following:

- 1) When the reported SAR of the highest measured maximum output power channel (section 3.1 of KDB248227 D01) for the exposure configuration is  $\leq 0.8$  W/kg, no further SAR testing is required for 802.11b DSSS in that exposure configuration.
- 2) When the reported SAR is  $> 0.8$  W/kg, SAR is required for that exposure configuration using the next highest measured output power channel. When any reported SAR is  $> 1.2$  W/kg, SAR is required for the third channel; i.e., all channels require testing.

##### B) 2.4GHz 802.11g/n OFDM SAR Test Exclusion Requirements

When SAR measurement is required for 2.4 GHz 802.11g/n OFDM configurations, the measurement and test reduction procedures for OFDM are applied (section 5.3 of KDB248227 D01). SAR is not required for the following 2.4 GHz OFDM conditions.

- 1) When KDB Publication 447498 SAR test exclusion applies to the OFDM configuration.
- 2) When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is  $\leq 1.2$  W/kg.

##### C) SAR Test Requirements for OFDM configurations

When SAR measurement is required for 802.11 a/g/n/ac OFDM configurations, each standalone and frequency aggregated band is considered separately for SAR test reduction. When the same transmitter and antenna(s) are used for U-NII-1 and U-NII-2A bands, additional SAR test reduction applies. When band gap channels between U-NII-2C band and 5.8 GHz U-NII-3 or §15.247 band are supported, the highest maximum output power transmission mode configuration and maximum output power channel across the bands must be used to determine SAR test reduction, according to the initial test configuration and subsequent test configuration requirements. In applying the initial test configuration and subsequent test configuration procedures, the 802.11 transmission configuration with the highest specified maximum output power and the channel within a test configuration with the highest measured maximum output power should be clearly distinguished to apply the procedures.

#### 5.3.5.5 U-NII-1 and U-NII-2A Bands

For devices that operate in only one of the U-NII-1 and U-NII-2A bands, the normally required SAR



procedures for OFDM configurations are applied. For devices that operate in both U-NII bands using the same transmitter and antenna(s), SAR test reduction is determined according to the following:

- 1) When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is  $\leq 1.2$  W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition); otherwise, both bands are tested independently for SAR.
- 2) When different maximum output power is specified for the bands, begin SAR measurement in the band with higher specified maximum output power. The highest reported SAR for the tested configuration is adjusted by the ratio of lower to higher specified maximum output power for the two bands. When the adjusted SAR is  $\leq 1.2$  W/kg, SAR is not required for the band with lower maximum output power in that test configuration; otherwise, both bands are tested independently for SAR
- 3) The two U-NII bands may be aggregated to support a 160 MHz channel on channel number 50. Without additional testing, the maximum output power for this is limited to the lower of the maximum output power certified for the two bands. When SAR measurement is required for at least one of the bands and the highest reported SAR adjusted by the ratio of specified maximum output power of aggregated to standalone band is  $> 1.2$  W/kg, SAR is required for the 160 MHz channel. This procedure does not apply to an aggregated band with maximum output higher than the standalone band(s); the aggregated band must be tested independently for SAR. SAR is not required when the 160 MHz channels operating at a reduced maximum power and also qualifies for SAR test exclusion.

#### 5.3.5.6 U-NII-2C and U-NII-3 Bands

The frequency range covered by these bands is 380 MHz (5.47 - 5.85 GHz), which requires a minimum of at least two SAR probe calibration frequency points to support SAR measurements. when Terminal Doppler Weather Radar (TDWR) restriction applies, the channels at 5.60 - 5.65 GHz in U-NII-2C band must be disabled with acceptable mechanisms and documented in the equipment certification to avoid SAR requirements. 10 TDWR restriction does not apply under the new rules; all channels that operate at 5.60 - 5.65 GHz must be included to apply the SAR test reduction and measurement procedures.

When the same transmitter and antenna(s) are used for U-NII-2C band and U-NII-3 band or 5.8 GHz band of §15.247, the bands may be aggregated to enable additional channels with 20, 40 or 80 MHz bandwidth to span across the band gap, as illustrated in Appendix B. The maximum output power for the additional band gap channels is limited to the lower of those certified for the bands. Unless band gap channels are permanently disabled, they must be considered for SAR testing. The frequency range covered by these bands is 380 MHz (5.47 - 5.85 GHz), which requires a minimum of at least two SAR probe calibration frequency points to support SAR measurements. To maintain SAR measurement accuracy and to facilitate test reduction, the channels in U-NII-2C band above 5.65GHz may be grouped with the 5.8 GHz channels in U-NII-3 or §15.247 band to enable two SAR probe calibration frequency points to cover the bands, including the band gap channels.<sup>11</sup> When band gap channels are supported and the bands are not aggregated for SAR testing, band gap channels must be considered independently in each band according to the normally required OFDM SAR measurement and probe calibration frequency points requirements.

### 5.3.5.7 OFDM Transmission Mode SAR Test Channel Selection Requirements

For 2.4 GHz and 5 GHz bands, When the same maximum output power was specified for multiple OFDM transmission mode configurations in a frequency band or aggregated band, SAR is measured using the configuration with the largest channel bandwidth, lowest order modulation and lowest data rate. When the maximum output power of a channel is the same for equivalent OFDM configurations (for example 802.11a, 802.11n and 802.11ac, or 802.11g and 802.11n, with the same channel bandwidth, modulation, and data rate, etc), the lower order 802.11 mode (i.e., 802.11a is chosen over 802.11n then 802.11ac, or 802.11g is chosen over 802.11n) is used for SAR measurement. When the maximum output power are the same for multiple test channel, either according to the default or additional power measurement requirement, SAR is measured using the channel closest to the middle of the frequency band or aggregated band, When there are multiple channels with the same maximum output power, SAR is measured using the higher number channel.

### 5.3.5.8 MIMO SAR Considerations

Per KDB248227 D01, simultaneous transmission provisions in KDB Publication 447498 should be used to determine simultaneous transmission SAR test exclusion for Wi-Fi MIMO. If the sum of 1-g SAR single transmission SAR measurement is <1 6W/kg, no additional SAR measurements for MIMO are required. Alternatively, SAR for MIMO can be measured with all antennas transmitting simultaneously at the specified maximum output power of MIMO operation.

### 5.3.6 Bluetooth Test Configuration

#### BT specific wireless modes and SAR test:

The device is a mobile phone. It supports a BT high power feature in specific wireless modes and operating configurations. The maximum power of BT is different on different scenarios. The BT of this device has two different operating modes:

- 1) Low power level mode (power level B, maximum duty cycle 100%) as default mode;
- 2) High power level mode (power level A, maximum duty cycle 100%) in specific wireless modes and operating configurations when the mobile phone is connected to an external audio device; Note: For this device, power level B is S power level A

Based on the BT high power mode detection technique description above, the different exposure conditions related to BT high power mode(Power level A) are listed as below table:

| Operating modes       | Max power level | Maximum duty cycle | Exposure condition Required for SAR testing |                                             |
|-----------------------|-----------------|--------------------|---------------------------------------------|---------------------------------------------|
|                       |                 |                    | Head<br>(Audio Receiver on)                 | Body-worn/Hotspot/<br>Product Specific 10-g |
| Low power level mode  | power level B   | 100%               | <b>Yes</b><br>(See Below Note 1)            | <b>Yes</b><br>(See Below Note 1)            |
| High power level mode | power level A   | 100%               | <b>N/A</b><br>(See Below Note 2)            | Yes                                         |

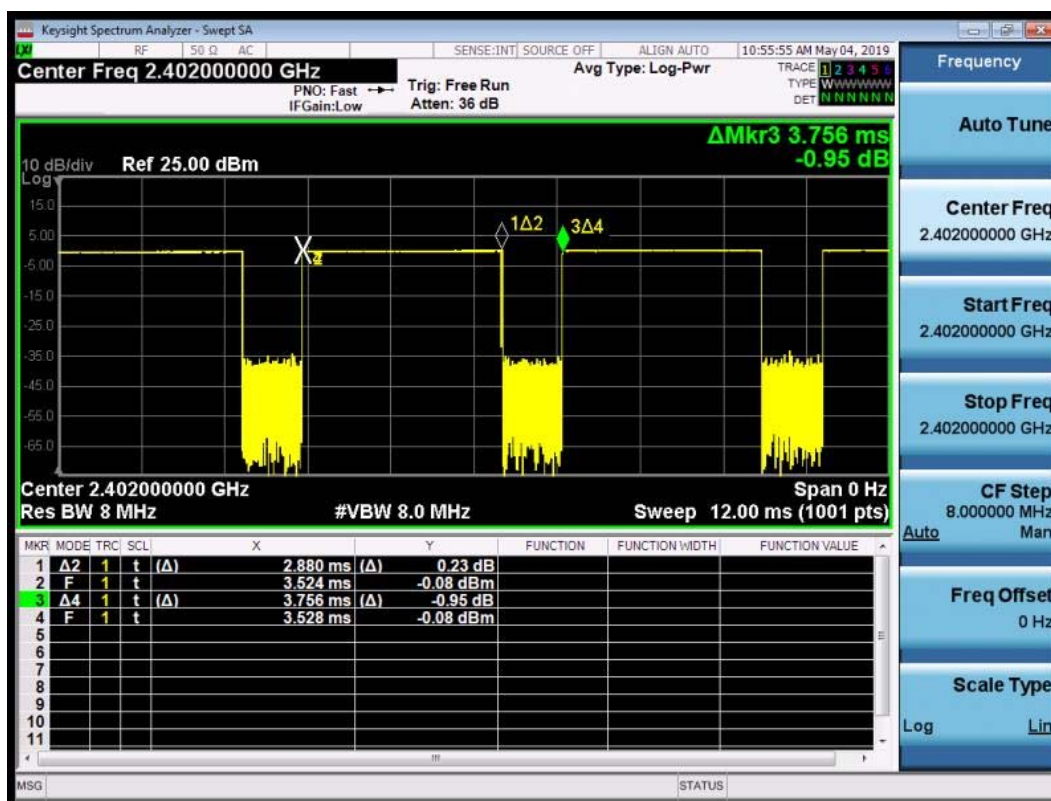
**Note 1:** The BT SAR results at low power level B is still required because the simultaneous transmission possibilities for BT at lower power level B and high power level A are different. The BT SAR results at low power level B should be used to evaluation the simultaneous transmission SAR

conditions not supported by BT higher power level A(Refer to Section 9 for details).

**Note 2:** High power level mode (power level A, maximum duty cycle 100%) is not applicable for Head exposure condition(Audio Receiver on) by design.

**Note 3:** Both the power level A and B results will be tested and provided in the SAR report to validate the power reduction function works.

The SAR measurement takes full account of the BT duty cycle and is reflected in the report, and the duty factor of the device is as follow:



Note: Duty factor= Ton (ms)/ T(on+off) (ms)=2.880/3.756=76.7%

### 5.3.7 LTE CA and downlink 4 x 4 MIMO specification

#### 5.3.7.1 LTE CA combinations specification

The device supports downlink and uplink LTE Carrier Aggregation (CA) for Intra-band and inter-band.

a) The LTE release and version numbers of the 3GPP documents used to implement the specific device(s): Release 13, 3GPP TS 36.211 V13.3.0 (2016-09)

b) The associated 3GPP release and version numbers required for power measurements and RF test setup conditions:

Release 15, 3GPP TS 36.521-1 V15.3.1 (2018-09)

Release 15, 3GPP TS 36.101 V15.4.0 (2018-09)

1) The device supports Intra-band uplink LTE CA for CA\_7C, CA\_38C, CA\_41C with two component carriers in the uplink.

2) The device supports Intra-band and inter-band downlink LTE CA (See the table below)

3) The device does not support full CA features on 3GPP Release 15 or higher. All other uplink communications are identical to the release 8 specifications. Other LTE Rel.10 or higher features are not supported, including Enhanced SC-FDMA, Uplink MIMO or other antenna diversity configurations, Wi-Fi offloading using LTE-U, LAA or LWA related protocols etc.

#### Intra-band contiguous CA operating bands

| E-UTRA CA configuration / Bandwidth combination set |                                   |                                                             |                                      |                                      |                                      |                                    |                           |
|-----------------------------------------------------|-----------------------------------|-------------------------------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|------------------------------------|---------------------------|
| E-UTRA CA configuration                             | Uplink CA configurations (NOTE 3) | Component carriers in order of increasing carrier frequency |                                      |                                      |                                      | Maximum aggregated bandwidth [MHz] | Bandwidth combination set |
|                                                     |                                   | Channel bandwidths for carrier [MHz]                        | Channel bandwidths for carrier [MHz] | Channel bandwidths for carrier [MHz] | Channel bandwidths for carrier [MHz] |                                    |                           |
| CA_2C                                               | -                                 | 5                                                           | 20                                   |                                      |                                      | 40                                 | 0                         |
|                                                     |                                   | 10                                                          | 15, 20                               |                                      |                                      |                                    |                           |
|                                                     |                                   | 15                                                          | 10, 15, 20                           |                                      |                                      |                                    |                           |
|                                                     |                                   | 20                                                          | 5, 10, 15, 20                        |                                      |                                      |                                    |                           |
| CA_5B                                               | -                                 | 5, 10                                                       | 10                                   |                                      |                                      | 20                                 | 0                         |
|                                                     |                                   | 10                                                          | 5                                    |                                      |                                      |                                    |                           |
| CA_7C                                               | CA_7C                             | 15                                                          | 15                                   |                                      |                                      | 40                                 | 0                         |
|                                                     |                                   | 20                                                          | 20                                   |                                      |                                      |                                    |                           |
|                                                     |                                   | 10                                                          | 20                                   |                                      |                                      | 40                                 | 1                         |
|                                                     |                                   | 15                                                          | 15, 20                               |                                      |                                      |                                    |                           |
|                                                     |                                   | 20                                                          | 10, 15, 20                           |                                      |                                      |                                    |                           |
|                                                     |                                   | 15                                                          | 10, 15                               |                                      |                                      | 40                                 | 2                         |
|                                                     |                                   | 20                                                          | 15, 20                               |                                      |                                      |                                    |                           |

|        |        |       |               |        |  |    |   |
|--------|--------|-------|---------------|--------|--|----|---|
| CA_12B | -      | 5     | 5, 10         |        |  | 15 | 0 |
| CA_38C | CA_38C | 15    | 15            |        |  | 40 | 0 |
|        |        | 20    | 20            |        |  |    |   |
| CA_41C | CA_41C | 10    | 20            |        |  | 40 | 0 |
|        |        | 15    | 15, 20        |        |  |    |   |
|        |        | 20    | 10, 15, 20    |        |  |    |   |
|        |        | 5, 10 | 20            |        |  | 40 | 1 |
|        |        | 15    | 15, 20        |        |  |    |   |
|        |        | 20    | 5, 10, 15, 20 |        |  |    |   |
|        |        | 10    | 15, 20        |        |  | 40 | 2 |
|        |        | 15    | 10, 15, 20    |        |  |    |   |
|        |        | 20    | 10, 15, 20    |        |  |    |   |
|        |        | 10    | 20            |        |  | 40 | 3 |
|        |        | 20    | 20            |        |  |    |   |
| CA_41D | CA_41C | 10    | 20            | 15     |  | 60 | 0 |
|        |        | 10    | 15, 20        | 20     |  |    |   |
|        |        | 15    | 20            | 10, 15 |  |    |   |
|        |        | 15    | 10, 15, 20    | 20     |  |    |   |
|        |        | 20    | 15, 20        | 10     |  |    |   |
|        |        | 20    | 10, 15, 20    | 15, 20 |  |    |   |

NOTE 1: The CA configuration refers to an operating band and a CA bandwidth class specified in Table (the indexing letter).

Absence of a CA bandwidth class for an operating band implies support of all classes.

NOTE 2: For the supported CC bandwidth combinations, the CC downlink and uplink bandwidths are equal.

NOTE 3: Uplink CA configurations are the configurations supported by the present release of specifications.

### Intra-band non-contiguous CA operating bands (with two sub-blocks)

| E-UTRA CA configuration / Bandwidth combination set |                                   |                                                             |                                      |                                      |                                      |                                      |                                    |                           |
|-----------------------------------------------------|-----------------------------------|-------------------------------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|------------------------------------|---------------------------|
| E-UTRACA configuration                              | Uplink CA configurations (NOTE 1) | Component carriers in order of increasing carrier frequency |                                      |                                      |                                      |                                      | Maximum aggregated bandwidth [MHz] | Bandwidth combination set |
|                                                     |                                   | Channel bandwidths for carrier [MHz]                        | Channel bandwidths for carrier [MHz] | Channel bandwidths for carrier [MHz] | Channel bandwidths for carrier [MHz] | Channel bandwidths for carrier [MHz] |                                    |                           |
| CA_7A-7A                                            | -                                 | 5                                                           | 15                                   |                                      |                                      |                                      | 40                                 | 0                         |
|                                                     |                                   | 10                                                          | 10, 15                               |                                      |                                      |                                      |                                    |                           |
|                                                     |                                   | 15                                                          | 15, 20                               |                                      |                                      |                                      |                                    |                           |
|                                                     |                                   | 20                                                          | 20                                   |                                      |                                      |                                      |                                    |                           |
|                                                     |                                   | 5, 10, 15, 20                                               | 5, 10, 15, 20                        |                                      |                                      |                                      | 40                                 | 1                         |
|                                                     |                                   | 5, 10, 15, 20                                               | 5, 10                                |                                      |                                      |                                      | 30                                 | 2                         |
|                                                     |                                   | 10, 15, 20                                                  | 10, 15, 20                           |                                      |                                      |                                      | 40                                 | 3                         |

|            |   |   |   |  |  |  |  |    |   |
|------------|---|---|---|--|--|--|--|----|---|
| CA_12A-12A | - | 5 | 5 |  |  |  |  | 10 | 0 |
|------------|---|---|---|--|--|--|--|----|---|

NOTE 1: Uplink CA configurations are the configurations supported by the present release of specifications.  
NOTE 2: Restricted to E-UTRA operation when inter-band carrier aggregation is configured. The downlink operating band is paired with the uplink operating band (external) of the carrier aggregation configuration that is supporting the configured Pcell.

### Inter-band CA operating bands (two bands)

| E-UTRA CA configuration / Bandwidth combination set |                                  |               |                                        |      |      |       |       |       |                                   |                           |
|-----------------------------------------------------|----------------------------------|---------------|----------------------------------------|------|------|-------|-------|-------|-----------------------------------|---------------------------|
| E-UTRA CA Configuration                             | Uplink CA configurations (NOTE4) | E- UTRA Bands | 1.4MHz                                 | 3MHz | 5MHz | 10MHz | 15MHz | 20MHz | Maximum aggregated bandwidth[MHz] | Bandwidth combination set |
| CA_2A-5A                                            | -                                | 2             |                                        |      | Yes  | Yes   | Yes   | Yes   | 30                                | 0                         |
|                                                     |                                  | 5             |                                        |      | Yes  | Yes   |       |       |                                   |                           |
|                                                     |                                  | 2             |                                        |      | Yes  | Yes   |       |       | 20                                | 1                         |
|                                                     |                                  | 5             |                                        |      | Yes  | Yes   |       |       |                                   |                           |
| CA_2A-12A                                           | -                                | 2             |                                        |      | Yes  | Yes   | Yes   | Yes   | 30                                | 0                         |
|                                                     |                                  | 12            |                                        |      | Yes  | Yes   |       |       |                                   |                           |
|                                                     |                                  | 2             |                                        |      | Yes  | Yes   | Yes   | Yes   | 30                                | 1                         |
|                                                     |                                  | 12            |                                        | Yes  | Yes  | Yes   |       |       |                                   |                           |
|                                                     |                                  | 2             |                                        |      | Yes  | Yes   |       |       | 20                                | 2                         |
|                                                     |                                  | 12            |                                        |      | Yes  | Yes   |       |       |                                   |                           |
| CA_2A-12B                                           | -                                | 2             |                                        |      | Yes  | Yes   | Yes   | Yes   | 35                                | 0                         |
|                                                     |                                  | 12            | See CA_12B Bandwidth Combination Set 0 |      |      |       |       |       |                                   |                           |
| CA_2A-17A                                           | -                                | 2             |                                        |      | Yes  | Yes   |       |       | 20                                | 0                         |
|                                                     |                                  | 17            |                                        |      | Yes  | Yes   |       |       |                                   |                           |
| CA_4A-5A                                            | -                                | 4             |                                        |      | Yes  | Yes   |       |       | 20                                | 0                         |
|                                                     |                                  | 5             |                                        |      | Yes  | Yes   |       |       |                                   |                           |
|                                                     |                                  | 4             |                                        |      | Yes  | Yes   | Yes   | Yes   | 30                                | 1                         |
|                                                     |                                  | 5             |                                        |      | Yes  | Yes   |       |       |                                   |                           |
| CA_4A-7A                                            | -                                | 4             |                                        |      | Yes  | Yes   |       |       | 30                                | 0                         |
|                                                     |                                  | 7             |                                        |      | Yes  | Yes   | Yes   | Yes   |                                   |                           |
|                                                     |                                  | 4             |                                        |      | Yes  | Yes   | Yes   | Yes   | 40                                | 1                         |
|                                                     |                                  | 7             |                                        |      | Yes  | Yes   | Yes   | Yes   |                                   |                           |
| CA_4A-7C                                            | -                                | 4             |                                        |      | Yes  | Yes   | Yes   | Yes   | 60                                | 0                         |
|                                                     |                                  | 7             | See CA_7C Bandwidth Combination Set 1  |      |      |       |       |       |                                   |                           |
| CA_4A-12A                                           | -                                | 4             | Yes                                    | Yes  | Yes  | Yes   |       |       | 20                                | 0                         |
|                                                     |                                  | 12            |                                        |      | Yes  | Yes   |       |       |                                   |                           |
|                                                     |                                  | 4             | Yes                                    | Yes  | Yes  | Yes   | Yes   | Yes   | 30                                | 1                         |
|                                                     |                                  | 12            |                                        |      | Yes  | Yes   |       |       |                                   |                           |

|               |   |    |                                            |     |     |     |     |     |    |   |
|---------------|---|----|--------------------------------------------|-----|-----|-----|-----|-----|----|---|
|               |   | 4  |                                            |     | Yes | Yes | Yes | Yes | 30 | 2 |
|               |   | 12 |                                            | Yes | Yes | Yes |     |     |    |   |
|               |   | 4  |                                            |     | Yes | Yes |     |     | 20 | 3 |
|               |   | 12 |                                            |     | Yes | Yes |     |     |    |   |
|               |   | 4  |                                            |     | Yes | Yes | Yes | Yes | 30 | 4 |
|               |   | 12 |                                            |     | Yes | Yes |     |     |    |   |
|               |   | 4  |                                            |     | Yes | Yes | Yes |     | 20 | 5 |
|               |   | 12 |                                            |     | Yes |     |     |     |    |   |
| CA_4A-12B     | - | 4  |                                            |     | Yes | Yes | Yes | Yes | 35 | 0 |
|               |   | 12 | See CA_12B Bandwidth Combination Set 0     |     |     |     |     |     |    |   |
| CA_4A-12A-12A | - | 4  |                                            |     | Yes | Yes | Yes | Yes | 30 | 0 |
|               |   | 12 | See CA_12A-12A Bandwidth Combination Set 0 |     |     |     |     |     |    |   |
| CA_4A-17A     | - | 4  |                                            |     | Yes | Yes |     |     | 20 | 0 |
|               |   | 17 |                                            |     | Yes | Yes |     |     |    |   |
| CA_5A-7A      | - | 5  | Yes                                        | Yes | Yes | Yes |     |     | 30 | 0 |
|               |   | 7  |                                            |     |     | Yes | Yes | Yes |    |   |
|               |   | 5  |                                            |     | Yes | Yes |     |     | 30 | 1 |
|               |   | 7  |                                            |     |     | Yes | Yes | Yes |    |   |
| CA_5A-7C      | - | 5  |                                            |     | Yes | Yes |     |     | 50 | 0 |
|               |   | 7  | See CA_7C Bandwidth Combination Set 1      |     |     |     |     |     |    |   |
| CA_7A-12A     | - | 7  |                                            |     | Yes | Yes | Yes | Yes | 30 | 0 |
|               |   | 12 |                                            |     | Yes | Yes |     |     |    |   |

NOTE 1: The CA Configuration refers to a combination of an operating band and a CA bandwidth class specified in Table (the indexing letter). Absence of a CA bandwidth class for an operating band implies support of all classes.

NOTE 2: For each band combination, all combinations of indicated bandwidths belong to the set.

NOTE 3: For the supported CC bandwidth combinations, the CC downlink and uplink bandwidths are equal.

NOTE 4: Uplink CA configurations are the configurations supported by the present release of specifications.

NOTE 5: For TDD inter-band Carrier Aggregation only non-simultaneous Rx/Tx uplink CA configurations can be supported by UE supporting corresponding DL CA configuration without simultaneous Rx/Tx.

NOTE 6: For the corresponding CA configuration, UE may not support Pcell transmissions in this E-UTRA band. NOTE 7: Requirements for this band configuration are applicable for 8Rx.

Note:1) For the inter-band CA combinations including B4+B12, B4+B17, only Band4 can be assigned PCC.

2) For the inter-band CA combinations including B5+B4, only Band5 can be assigned PCC.

3) The channel spacing and aggregated channel bandwidth for CA are identical to the associated specification in Release 15,3GPP TS 36.521-1 V15.3.1 (2018-09) and Release 15,3GPP TS 36.101 V15.4.0 (2018-09)

4) The reference test frequencies for CA refers to 3GPP TS 36.508 V15.4.0 (2018-12)



### 5.3.7.2 Test procedure for downlink CA

According to 201804 FCC RF Exposure TCB workshop slides, the guidance does not consider Intra band DL CA and inter-band DL CA separately.

In applying the power measurement procedures of KDB 941225 D05A for DL CA SAR test exclusion, only the CA configuration with the largest aggregated DL CA bandwidth in each frequency band group need consideration (independently for contiguous and non-contiguous CA). When the same frequency band is used for both contiguous and non-contiguous CA, power may be measured using the configuration with the largest aggregated bandwidth “and” maximum output power among the contiguous and non-contiguous CA configurations, otherwise, these are considered separately. In applying the existing power measurement procedures of KDB 941225 D05A for DL CA SAR test exclusion, only the subset with the largest number of combinations of frequency bands and CCs in each row need consideration. the configurations that require power measurements are in the table as below:

| Index   | 2CCs       | Restriction | Covered by | Index  | 3CCs          | Restriction | Covered by |
|---------|------------|-------------|------------|--------|---------------|-------------|------------|
| 2CCs#1  | CA 2C      |             | No         | 3CCs#1 | CA 41D        |             | No         |
| 2CCs#2  | CA_5B      |             | No         | 3CCs#2 | CA_2A-12B     |             | No         |
| 2CCs#3  | CA_7C      |             | 3CCs#3     | 3CCs#3 | CA_4A-7C      |             | No         |
| 2CCs#4  | CA_12B     |             | 3CCs#2     | 3CCs#4 | CA_4A-12B     |             | No         |
| 2CCs#5  | CA 38C     |             | No         | 3CCs#5 | CA 4A-12A-12A |             | No         |
| 2CCs#6  | CA 41C     |             | No         | 3CCs#6 | CA_5A-7C      |             | No         |
| 2CCs#7  | CA 7A-7A   |             | No         |        |               |             |            |
| 2CCs#8  | CA 12A-12A |             | 3CCs#5     |        |               |             |            |
| 2CCs#9  | CA 2A-5A   |             | No         |        |               |             |            |
| 2CCs#10 | CA 2A-12A  |             | No         |        |               |             |            |
| 2CCs#11 | CA 2A-17A  |             | No         |        |               |             |            |
| 2CCs#12 | CA 4A-5A   |             | No         |        |               |             |            |
| 2CCs#13 | CA 4A-7A   |             | No         |        |               |             |            |
| 2CCs#14 | CA_4A-12A  |             | 3CCs#5     |        |               |             |            |
| 2CCs#15 | CA_4A-17A  |             | No         |        |               |             |            |
| 2CCs#16 | CA 5A-7A   |             | No         |        |               |             |            |
| 2CCs#17 | CA_7A-12A  |             | No         |        |               |             |            |

Refer to section 9.3 of this report for detailed DL CA conducted power measurement results

### 5.3.7.3 Test procedure for Intra-band uplink CA

For Intra-band uplink LTE CA measurement(Uplink CA 7C, CA 38C, CA 41C), the following procedure according to 201711 FCC RF Exposure TCB workshop slides is applied.

1)Maximum output power is measured for each UL CA configuration for the required test channels described in KDB 941225 D05( Rel. 8).

- UL PCC configuration is determined by the required test channel.

- SCC and subsequent CCs are added alternatively to either side of the PCC or within the transmission band for channels at the ends of a frequency band.

2)SAR for UL CA is required in each exposure condition and frequency band combination.

3) For this device, as the maximum output for Intra-band uplink LTE CA (Uplink CA 7C, CA 38C,CA 41C)is  $\leq$  standalone LTE mode(without CA).

- PCC is configured according to the highest standalone SAR configuration tested.

- SCC and subsequent CCs are configured according to procedures used for power measurement and parameters (BW, RB etc.) similar to that used for the PCC.

4) When the reported SAR for UL CA configuration, described above, is  $>1.2$  W/kg, UL CA SAR is also required for all required test channels (PCC, based).

5) UL CA SAR is also required for standalone SAR configurations  $>1.2$  W/kg when they are scaled to the UL CA power level

Refer to section 9.3 of this report for detailed UL CA conducted power measurement results.

#### 5.3.7.4 LTE Downlink 4 x 4 MIMO specification and Test procedure

LTE B7 of this device support downlink 4\*4 MIMO band, the information are tabulated below:

| Single Band support DL 4*4MIMO                   | 4*4MIMO Band          |
|--------------------------------------------------|-----------------------|
| LTE Band support DL 4*4MIMO                      | LTE Band 7            |
| <b>Intra-band contiguous CA With DL 4*4MIMO</b>  | <b>4*4MIMO Band</b>   |
| CA_7C                                            | B7(single card only ) |
| <b>Inter-band CA (two bands) With DL 4*4MIMO</b> | <b>4*4MIMO Band</b>   |
| CA_4A-7A                                         | B7                    |
| CA_4A-7C                                         | B7(single card only ) |
| CA_5A-7A                                         | B7                    |
| CA_5A-7C                                         | B7(single card only ) |
| CA_7A-12A                                        | B7                    |

Note1. "Single card only" in this table indicates that this feature is supported on VOG-L09 support, and is supported on VOGL29 only when one SIM card is inserted.

Note2. "Double card only" in this table indicates that this feature is supported on VOG-L29 when two SIM card is inserted.

According to 201705 FCC RF Exposure TCB workshop slides, SAR test exclusion for LTE DL 4x4 MIMO should be determined by UL power measurements with and without DL MIMO using the highest UL output power configuration without DL MIMO to confirm that UL output with DL MIMO is  $< \frac{1}{4}$  dB higher.

For DL MIMO with carrier aggregation, the same SAR test exclusion procedure should be considered. For LTE DL 4x4 MIMO with carrier aggregation, the same SAR test exclusion procedure should be considered: In applying the existing power measurement procedures of KDB 941225 D05A for DL CA SAR test exclusion, only the subset with the largest number of combinations of frequency bands and CCs in each row need consideration. the configurations that require power measurements are in the table as below:

| Index  | 2CCs      | Restriction | Covered by |
|--------|-----------|-------------|------------|
| 2CCs#1 | CA_7C     |             | 3CCs#1     |
| 2CCs#2 | CA_4A-7A  |             | No         |
| 2CCs#3 | CA_5A-7A  |             | No         |
| 2CCs#4 | CA_7A-12A |             | No         |

| Index  | 3CCs     | Restriction | Covered by |
|--------|----------|-------------|------------|
| 3CCs#1 | CA_4A-7C |             | No         |
| 3CCs#2 | CA_5A-7C |             | No         |

Refer to section 9.3 of this report for detailed DL 4\*4 MIMO conducted power measurement results.

### 5.3.8 Power Reduction Configuration

This device uses the following power reduction features to reduce the transmit power and ensure SAR compliance. These power reduction features are implemented using a single fixed level of reduction through static table look-up for some wireless operating modes or frequency bands and triggered by a single event or operation. The published RF exposure KDB procedures are applicable to the specific implementation and applied for testing. So PAG is not required for these features.

- 1) A fixed level power reduction is applied for some frequency bands when hotspot mode becomes active. When the hotspot is disabled, the power value will be recovered.
- 2) A fixed level power reduction is applied for some frequency bands when 2G/3G/4G and WIFI transmit simultaneously.
- 3) This device uses the receiver to indicate whether the user is making a voice call in head scenario or not. The selection between head and body power levels is based on the receiver detection mechanism. A fixed level power reduction is applied for some frequency bands when the audio receiver is on.
- 4) This device uses the mobile country code (MCC) detection mechanism to indicate whether the users in CE countries and FCC countries in Wi-Fi bands. The selection between different power levels is based on the country code detection mechanism. It can determine the countries where users are and set the relevant power level for Wi-Fi antennas accordingly.

| Antenna                 | MCC OF CE COUNTRY<br>(CE standard) | MCC OF FCC COUNTRY<br>(FCC standard) |
|-------------------------|------------------------------------|--------------------------------------|
| WiFi 2.4G Core0 (Ant 1) | Power Level A3                     | Power Level B3                       |
| WiFi 2.4G Core1 (Ant 2) | Power Level A4                     | Power Level B4                       |
| WiFi 5G Core0 (Ant 1)   | Power Level A5                     | Power Level B5                       |
| WiFi 5G Core1(Ant 2)    | Power Level A6                     | Power Level B6                       |

- 5) This device uses a proximity sensor to reduce the maximum output power of 2G/3G/4G main transmitting antenna in selected wireless modes and operating configurations to ensure SAR compliance. The procedures in KDB 616217 are applied to determine proximity sensor triggering distances, and sensor coverage for normal and tilt positions.

#### 5.3.8.1 Power reduction triggered by specific use conditions (2G&3G&4G Second Antenna)

The following tables summarize the key power reduction information of 2G/3G/4G second antenna triggered by specific use conditions. The detailed full power and reduced conducted power measurement results are provided in Section 9 of this report.

| Band         | Second Antenna Power Reduction Level Amount (dB) |             |
|--------------|--------------------------------------------------|-------------|
|              | Second Antenna only                              |             |
|              | Receiver off                                     | Receiver on |
| GSM850       | 0                                                | 5           |
| GSM1900      | 0                                                | 3.5         |
| UMTS Band II | 0                                                | 6           |

|              |   |      |
|--------------|---|------|
| UMTS Band IV | 0 | 7    |
| UMTS Band V  | 0 | 6    |
| LTE Band 2   | 0 | 5.5  |
| LTE Band 4   | 0 | 6.5  |
| LTE Band 5   | 0 | 6    |
| LTE Band 7   | 0 | 3.55 |
| LTE Band 12  | 0 | 4    |
| LTE Band 17  | 0 | 4    |
| LTE Band 26  | 0 | 5    |
| LTE Band 38  | 0 | 4.5  |
| LTE Band 41  | 0 | 5    |

Note: For Head SAR test of 2G/3G/4G Second Antenna, standalone Head SAR should be evaluated with audio receiver on. The audio receiver only works in voice mode when the user is making a call in head scenario, lacking of the third-party VoIP server and the unstandardized VOIP operating characteristic, therefore, a test script tool is used to trigger the receiver on during the test. The test script is only used to trigger audio receiver on and simulate voice and VOIP usage scene. It can be ensured that the unmodified settings in production units, including maximum output power, amplifier gain and other RF performance or tuning parameters, are used for SAR measurement.

### 5.3.8.2 Country code detection mechanism

The device uses the mobile country code (MCC) to indicate whether the users in CE countries or FCC countries. The selection between CE countries and FCC countries power levels is based on the country code detection mechanism. It can determine the countries where users are and set the relevant power level for Wi-Fi antennas accordingly.

| MCC of FCC countries |              |              |               |                                          |              |              |              |               |                                          | MCC of CE countries |              |       |               |                                          |              |              |              |               |                                          |              |       |       |       |
|----------------------|--------------|--------------|---------------|------------------------------------------|--------------|--------------|--------------|---------------|------------------------------------------|---------------------|--------------|-------|---------------|------------------------------------------|--------------|--------------|--------------|---------------|------------------------------------------|--------------|-------|-------|-------|
| Receiver on          |              |              |               |                                          | Receiver off |              |              |               |                                          | Receiver on         |              |       |               |                                          | Receiver off |              |              |               |                                          |              |       |       |       |
| Ant                  | Mode         | CH           | Tune-up (dBm) | conducted power validation results (dBm) | Antenna      | Mode         | CH           | Tune-up (dBm) | conducted power validation results (dBm) | Ant                 | Mode         | CH    | Tune-up (dBm) | conducted power validation results (dBm) | Ant          | Mode         | CH           | Tune-up (dBm) | conducted power validation results (dBm) |              |       |       |       |
| Ant 1                | 802.11b      | 1-11         | 13            | 12.85                                    | Ant 1        | 802.11b      | 1-11         | 18            | 16.78                                    | Ant 1               | 802.11b      | 1-13  | 15.5          | 14.65                                    | Ant 1        | 802.11b      | 1-13         | 18            | 17.25                                    |              |       |       |       |
|                      | 802.11g      | 1-2          | 11.5          | 10.68                                    |              | 1-2          | 11.5         | 10.23         | 1-2                                      |                     | 11.5         | 10.68 | 1-2           | 11.5                                     |              | 10.65        |              |               |                                          |              |       |       |       |
|                      |              | 3-9          | 13            | 12.22                                    |              | 3-9          | 18           | 16.42         | 3-9                                      |                     | 15.5         | 14.52 | 3-9           | 18                                       |              | 16.84        |              |               |                                          |              |       |       |       |
|                      |              | 10           | 10            | 9.15                                     |              | 10           | 10           | 8.7           | 10                                       |                     | 10           | 9.45  | 10            | 10                                       |              | 9.11         |              |               |                                          |              |       |       |       |
|                      |              | 11           | 8.5           | 7.08                                     |              | 11           | 8.5          | 6.83          | 11                                       |                     | 8.5          | 7.38  | 11            | 8.5                                      |              | 7.19         |              |               |                                          |              |       |       |       |
|                      | 802.11n-HT20 | 1-2          | 11.5          | 10.12                                    |              | 1-2          | 11.5         | 9.74          | 12-13                                    |                     | 15.5         | 14.48 | 12-13         | 18                                       |              | 16.79        |              |               |                                          |              |       |       |       |
|                      |              | 3-9          | 13            | 11.81                                    |              | 3-9          | 17           | 15.14         | 1-2                                      |                     | 11.5         | 10.12 | 1-2           | 11.5                                     |              | 10.1         |              |               |                                          |              |       |       |       |
|                      |              | 10           | 10            | 8.7                                      |              | 10           | 10           | 8.3           | 3-9                                      |                     | 15.5         | 14.11 | 3-9           | 17                                       |              | 15.65        |              |               |                                          |              |       |       |       |
|                      |              | 11           | 8.5           | 6.57                                     |              | 11           | 8.5          | 6.75          | 10                                       |                     | 10           | 8.7   | 10            | 10                                       |              | 8.7          |              |               |                                          |              |       |       |       |
|                      | 802.11n-HT40 | 3            | 7             | 5.04                                     |              | 3            | 7            | 5.12          | 3                                        |                     | 7            | 5.54  | 3             | 7                                        |              | 5.57         |              |               |                                          |              |       |       |       |
|                      |              | 4            | 8.5           | 6.6                                      |              | 4            | 8.5          | 6.73          | 4                                        |                     | 8.5          | 6.6   | 4             | 8.5                                      |              | 7.03         |              |               |                                          |              |       |       |       |
|                      |              | 5-6          | 13            | 12.53                                    |              | 5-6          | 15.5         | 13.71         | 5-6                                      |                     | 15.5         | 14.13 | 5-6           | 15.5                                     |              | 14.14        |              |               |                                          |              |       |       |       |
|                      |              | 7            | 8             | 6.02                                     |              | 7            | 8            | 6.08          | 7                                        |                     | 8            | 6.52  | 7             | 8                                        |              | 6.48         |              |               |                                          |              |       |       |       |
|                      |              | 8            | 7             | 5.09                                     |              | 8            | 7            | 5.03          | 8                                        |                     | 7            | 5.59  | 8             | 7                                        |              | 5.55         |              |               |                                          |              |       |       |       |
|                      |              | 9            | 6.5           | 4.56                                     |              | 9            | 6.5          | 4.55          | 9                                        |                     | 6.5          | 5.06  | 9             | 6.5                                      |              | 4.98         |              |               |                                          |              |       |       |       |
|                      |              | 10-11        | 8             | 6.09                                     |              | 10-11        | 8            | 6.16          | 10-11                                    |                     | 8            | 6.59  | 10-11         | 8                                        |              | 6.56         |              |               |                                          |              |       |       |       |
| 802.11n-HT40         |              | 1-12         | 17            | 16.37                                    |              |              |              |               |                                          |                     |              |       |               |                                          |              |              |              |               |                                          |              |       |       |       |
| Ant 2                | 802.11b      | 1-3          | 13            | 12.16                                    | Ant 2        | 802.11b      | 1-11         | 17            | 15.85                                    | Ant 2               | 802.11b      | 1-13  | 15.5          | 14.97                                    | Ant 2        | 802.11b      | 1-12         | 17            | 16.37                                    |              |       |       |       |
|                      |              | 4            | 10            | 9.4                                      |              | 1-2          | 11.5         | 9.94          | 1-2                                      |                     | 11.5         | 10.39 |               |                                          |              |              |              |               |                                          |              |       |       |       |
|                      |              | 5            | 8.5           | 7.19                                     |              | 3-9          | 17           | 15.84         | 3-9                                      |                     | 15.5         | 14.46 | 1-2           | 11.5                                     |              | 10.39        |              |               |                                          |              |       |       |       |
|                      |              | 6-7          | 11.5          | 10.06                                    |              | 10           | 10           | 9.06          | 10                                       |                     | 10           | 9.4   | 3-9           | 17                                       |              | 16.34        |              |               |                                          |              |       |       |       |
|                      | 802.11g      | 8-11         | 13            | 12.12                                    |              | 11           | 8.5          | 6.59          | 11                                       |                     | 8.5          | 7.19  | 10            | 10                                       |              | 9.43         |              |               |                                          |              |       |       |       |
|                      |              | 1-3          | 13            | 12.28                                    |              | 802.11n-HT20 | 1-2          | 11.5          | 9.6                                      |                     | 802.11n-HT20 | 12-13 | 15.5          | 14.53                                    |              | 802.11n-HT20 | 11           | 8.5           | 7.11                                     |              |       |       |       |
|                      |              | 4            | 10            | 9.24                                     |              |              | 3-9          | 16            | 14.75                                    |                     |              | 1-2   | 11.5          | 10.06                                    |              |              | 12-13        | 17            | 16.16                                    |              |       |       |       |
|                      |              | 5            | 8.5           | 7.03                                     |              |              | 10           | 10            | 8.69                                     |                     |              | 3-9   | 15.5          | 14.58                                    |              |              | 1-2          | 11.5          | 10.03                                    |              |       |       |       |
|                      |              | 6            | 7             | 5.61                                     |              |              | 11           | 8.5           | 6.57                                     |                     |              | 10    | 10            | 9.24                                     |              |              | 3-9          | 16            | 15.06                                    |              |       |       |       |
|                      |              | 7            | 8.5           | 7.12                                     |              | 3            | 7            | 5.09          | 11                                       |                     | 8.5          | 7.03  | 10            | 10                                       |              |              | 9.06         |               |                                          |              |       |       |       |
|                      |              | 8-9          | 13            | 12.31                                    |              | 4            | 8.5          | 6.62          | 12-13                                    |                     | 15.5         | 14.77 | 11            | 8.5                                      |              |              | 6.91         |               |                                          |              |       |       |       |
|                      |              | 10           | 8             | 6.56                                     |              | 5-6          | 14.5         | 12.66         | 3                                        |                     | 7            | 5.61  | 12-13         | 16                                       |              | 14.56        |              |               |                                          |              |       |       |       |
|                      | 11           | 7            | 5.52          | 7                                        |              | 8            | 6.03         | 4             | 8.5                                      |                     | 7.12         | 3     | 7             | 5.62                                     |              |              |              |               |                                          |              |       |       |       |
|                      | 802.11n-HT20 | 1            | 6.5           | 5.08                                     |              | 8            | 7            | 5.06          | 5-6                                      |                     | 14.5         | 13.61 | 4             | 8.5                                      |              | 6.96         |              |               |                                          |              |       |       |       |
|                      |              | 2-3          | 8             | 6.62                                     |              | 9            | 6.5          | 4.55          | 7                                        |                     | 8            | 6.56  | 5-6           | 14.5                                     |              | 13.14        |              |               |                                          |              |       |       |       |
|                      |              | 4-6          | 13            | 12.16                                    |              | 10-11        | 8            | 6.1           | 8                                        |                     | 7            | 5.52  | 7             | 8                                        |              | 6.43         |              |               |                                          |              |       |       |       |
|                      |              | 7            | 10            | 9.4                                      |              | 1-2          | 14.51        | 13.1          | 9                                        |                     | 6.5          | 5.08  | 8             | 7                                        |              | 5.4          |              |               |                                          |              |       |       |       |
|                      |              | 8            | 8.5           | 7.19                                     |              | 3-9          | 20.54        | 19.15         | 10-11                                    |                     | 8            | 6.62  | 9             | 6.5                                      |              | 5.01         |              |               |                                          |              |       |       |       |
|                      |              | 9-10         | 11.5          | 10.06                                    |              | 10           | 13.01        | 11.89         | 1-2                                      |                     | 14.51        | 13.34 | 10-11         | 8                                        |              | 6.6          |              |               |                                          |              |       |       |       |
|                      |              | 11           | 13            | 11.59                                    |              | 11           | 11.51        | 9.72          | 3-9                                      |                     | 18.51        | 17.39 | 1-2           | 14.51                                    |              | 13.57        |              |               |                                          |              |       |       |       |
|                      |              | 802.11n-HT40 | 3-8           | 13                                       |              | 12.28        | 802.11n-HT40 | 1-2           | 14.51                                    |                     | 12.68        | 10    | 13.01         | 12.29                                    |              | 3-9          | 20.54        | 19.46         |                                          |              |       |       |       |
|                      | 9            | 10           | 9.24          | 3-9                                      |              | 19.54        |              | 17.96         | 11                                       |                     | 11.51        | 10.15 | 10            | 13.01                                    |              | 12.29        |              |               |                                          |              |       |       |       |
|                      | 10           | 8.5          | 7.03          | 10                                       |              | 13.01        |              | 11.51         | 12-13                                    |                     | 18.51        | 17.51 | 11            | 11.51                                    |              | 10.12        |              |               |                                          |              |       |       |       |
|                      | 11           | 7            | 5.61          | 11                                       |              | 11.51        |              | 9.67          | 1-2                                      |                     | 14.51        | 13.08 | 12-13         | 20.54                                    |              | 19.13        |              |               |                                          |              |       |       |       |
|                      | MIMO         | 802.11g      | 1-2           | 14.51                                    |              | 13.34        | MIMO         | 802.11n-HT40  | 3                                        |                     | 10.01        | 8.12  | MIMO          | 802.11n-HT20                             |              | 3-9          | 18.51        | 17.26         | MIMO                                     | 802.11n-HT20 | 1-2   | 14.51 | 13.08 |
|                      |              |              | 3-9           | 16.01                                    |              | 15.09        |              |               | 4                                        |                     | 11.51        | 9.69  |               |                                          |              | 10           | 13.01        | 11.99         |                                          |              | 3-9   | 19.54 | 18.34 |
|                      |              |              | 10            | 13.01                                    |              | 12.29        |              |               | 6                                        |                     | 18.04        | 16.19 |               |                                          |              | 11           | 11.51        | 9.82          |                                          |              | 10    | 13.01 | 11.89 |
|                      |              |              | 11            | 11.51                                    |              | 10.15        |              |               | 7                                        |                     | 11.01        | 9.07  |               |                                          |              | 12-13        | 18.51        | 17.14         |                                          |              | 11    | 11.51 | 10    |
|                      |              | 802.11n-HT20 | 1-2           | 14.51                                    |              | 13.08        |              | 8             | 10.01                                    |                     | 8.06         | 3     |               | 10.01                                    |              | 8.34         | 802.11n-HT40 | 3             |                                          | 10.01        | 8.47  |       |       |
|                      |              |              | 3-9           | 16.01                                    |              | 14.96        |              | 9             | 9.51                                     |                     | 7.56         | 4     |               | 11.51                                    |              | 9.88         |              | 4             |                                          | 11.51        | 10.15 |       |       |
|                      |              |              | 10            | 13.01                                    |              | 11.99        |              | 10-11         | 11.01                                    |                     | 9.14         | 5-6   |               | 18.04                                    |              | 17.36        |              | 5-6           |                                          | 18.04        | 16.59 |       |       |
|                      |              |              | 11            | 11.51                                    |              | 9.82         |              | /             | /                                        |                     | /            | /     |               | /                                        |              | /            |              | /             |                                          | 7            | 11.01 | 9.44  |       |
|                      |              | 802.11n-HT40 | 3             | 10.01                                    |              | 8.34         |              | /             | /                                        |                     | /            | /     |               | /                                        |              | /            | /            | 8             |                                          | 10.01        | 8.49  |       |       |
|                      |              |              | 4             | 11.51                                    |              | 9.88         |              | /             | /                                        |                     | /            | /     |               | /                                        |              | /            | /            | 9             |                                          | 9.51         | 7.95  |       |       |
|                      |              |              | 5-6           | 16.01                                    |              | 15.06        |              | /             | /                                        |                     | /            | /     |               | /                                        |              | /            | /            | 10-11         |                                          | 11.01        | 9.56  |       |       |
|                      |              |              | 7             | 11.01                                    |              | 9.31         |              | /             | /                                        |                     | /            | /     |               | /                                        |              | /            | /            | /             |                                          | /            | /     |       |       |
| 8                    | 10.01        |              | 8.32          | /                                        | /            | /            | /            | /             | /                                        | /                   | /            | /     | /             |                                          |              |              |              |               |                                          |              |       |       |       |
| 9                    | 9.51         |              | 7.84          | /                                        | /            | /            | /            | /             | /                                        | /                   | /            | /     | /             |                                          |              |              |              |               |                                          |              |       |       |       |
| 10-11                | 11.01        | 9.37         | /             | /                                        | /            | /            | /            | /             | /                                        | /                   | /            | /     | /             | /                                        | /            | /            |              |               |                                          |              |       |       |       |
| Receiver on          |              |              |               |                                          | Receiver off |              |              |               |                                          | Receiver on         |              |       |               |                                          | Receiver off |              |              |               |                                          |              |       |       |       |
| Ant                  | Mode         | CH           | Tune-up (dBm) | conducted power validation results       | Antenna      | Mode         | CH           | Tune-up (dBm) | conducted power validation results       | Ant                 | Mode         | CH    | Tune-up (dBm) | conducted power validation results       | Ant          | Mode         | CH           | Tune-up (dBm) | conducted power validation results       |              |       |       |       |



|                |                 |         |         |         | (dBm)        |                |              |                 |         |         |              |                 |              | (dBm)        |                  |         |              |                 |              |         |              |                  | (dBm)   |       |         |       |
|----------------|-----------------|---------|---------|---------|--------------|----------------|--------------|-----------------|---------|---------|--------------|-----------------|--------------|--------------|------------------|---------|--------------|-----------------|--------------|---------|--------------|------------------|---------|-------|---------|-------|
| Ant 1          | 802.11a         | 36      | 10.5    | 9.03    | Ant 1        | 802.11a        | 36           | 10.5            | 9.84    | Ant 1   | 802.11a      | 36              | 10.5         | 9.03         | Ant 1            | 802.11a | 36           | 10.5            | 9.86         |         |              |                  |         |       |         |       |
|                |                 | 40-60   | 12      | 11.93   |              |                | 40-60        | 16              | 15.67   |         |              | 40-60           | 16           | 15.43        |                  |         | 40-60        | 16              | 15.73        |         |              |                  |         |       |         |       |
|                |                 | 64-100  | 10.5    | 9.56    |              |                | 64-100       | 10.5            | 9.46    |         |              | 64-100          | 10.5         | 9.56         |                  |         | 64-100       | 10.5            | 9.47         |         |              |                  |         |       |         |       |
|                |                 | 104-136 | 12      | 11.4    |              |                | 104-136      | 16              | 14.78   |         |              | 104-136         | 16           | 14.9         |                  |         | 104-136      | 16              | 14.74        |         |              |                  |         |       |         |       |
|                |                 | 140     | 11      | 10.52   |              |                | 140          | 11              | 10.82   |         |              | 140             | 11           | 10.52        |                  |         | 140          | 11              | 10.8         |         |              |                  |         |       |         |       |
|                |                 | 149     | 11.5    | 10.74   |              |                | 149          | 11.5            | 11.44   |         |              | 149-165         | 11.5         | 11.29        |                  |         | 149-165      | 11.5            | 11.43        |         |              |                  |         |       |         |       |
|                | 153-161         | 12      | 11.29   | 153-161 |              | 16             | 15.9         | 153-161         | 16      |         | 15.9         | 153-161         | 16           | 15.9         |                  | 153-161 | 16           | 15.9            |              |         |              |                  |         |       |         |       |
|                | 165             | 11.5    | 10.54   | 165     |              | 11.5           | 11.46        | 165             | 11.5    |         | 11.46        | 165             | 11.5         | 11.46        |                  | 165     | 11.5         | 11.46           |              |         |              |                  |         |       |         |       |
|                | 802.11n-HT20    | 36      | 10.5    | 8.91    |              | Ant 1          | 802.11n-HT20 | 36              | 10.5    |         | 8.94         | Ant 1           | 802.11n-HT20 | 36           |                  | 10.5    | 8.91         | Ant 1           | 802.11n-HT20 | 36      | 10.5         | 8.95             |         |       |         |       |
|                |                 | 40-60   | 12      | 11.05   |              |                |              | 40-60           | 16      |         | 15.19        |                 |              | 40-60        |                  | 16      | 14.94        |                 |              | 40-60   | 16           | 15.17            |         |       |         |       |
|                |                 | 64-100  | 10.5    | 9.35    |              |                |              | 64-100          | 10.5    |         | 9.15         |                 |              | 64-100       |                  | 10.5    | 9.35         |                 |              | 64-100  | 10.5         | 9.13             |         |       |         |       |
|                |                 | 104-136 | 12      | 11.26   |              |                |              | 104-136         | 16      |         | 15.14        |                 |              | 104-136      |                  | 16      | 14.76        |                 |              | 104-136 | 16           | 15.12            |         |       |         |       |
|                |                 | 140     | 11      | 9.94    |              |                |              | 140             | 11      |         | 9.54         |                 |              | 140          |                  | 11      | 9.94         |                 |              | 140     | 11           | 9.53             |         |       |         |       |
|                |                 | 149     | 11.5    | 10.53   |              |                |              | 149             | 11.5    |         | 10.92        |                 |              | 149-165      |                  | 11.5    | 10.95        |                 |              | 149-165 | 11.5         | 10.9             |         |       |         |       |
| 153-161        | 12              | 10.95   | 153-161 | 16      | 15.42        |                | 153-161      | 16              | 15.42   | 153-161 | 16           |                 | 15.42        | 153-161      | 16               | 15.42   |              |                 |              |         |              |                  |         |       |         |       |
| 165            | 11.5            | 9.67    | 165     | 11.5    | 10.75        |                | 165          | 11.5            | 10.75   | 165     | 11.5         |                 | 10.75        | 165          | 11.5             | 10.75   |              |                 |              |         |              |                  |         |       |         |       |
| 802.11n-HT40   | 38              | 9.5     | 8.22    | Ant 1   | 802.11n-HT40 |                | 38           | 9.5             | 8.44    | Ant 1   | 802.11n-HT40 |                 | 38           | 9.5          | 8.22             | Ant 1   | 802.11n-HT40 |                 | 38           | 9.5     | 8.43         |                  |         |       |         |       |
|                | 46-54           | 12      | 11.61   |         |              |                | 46-54        | 15.5            | 14.61   |         |              |                 | 46-54        | 15.5         | 15.11            |         |              |                 | 46-54        | 15.5    | 14.61        |                  |         |       |         |       |
|                | 62              | 9       | 7.46    |         |              |                | 62           | 9               | 8.02    |         |              |                 | 62           | 9            | 7.46             |         |              |                 | 62           | 9       | 8.01         |                  |         |       |         |       |
|                | 102             | 9.5     | 8.53    |         |              |                | 102          | 9.5             | 8.24    |         |              |                 | 102          | 9.5          | 8.53             |         |              |                 | 102          | 9.5     | 8.24         |                  |         |       |         |       |
|                | 110-126         | 12      | 11.61   |         |              |                | 110-126      | 15.5            | 14.42   |         |              |                 | 110-126      | 15.5         | 14.71            |         |              |                 | 110-126      | 15.5    | 14.45        |                  |         |       |         |       |
|                | 134             | 9.5     | 8.46    |         |              |                | 134          | 9.5             | 7.78    |         |              |                 | 134          | 9.5          | 8.46             |         |              |                 | 134          | 9.5     | 7.77         |                  |         |       |         |       |
| 151-159        | 12              | 11.46   | 151-159 |         | 15.5         | 14.57          | 151-159      | 11.5            | 11.46   |         | 151-159      | 11.5            | 11.04        |              |                  |         |              |                 |              |         |              |                  |         |       |         |       |
| 802.11ac-VHT20 | 36              | 10.5    | 8.96    |         | Ant 1        | 802.11ac-VHT20 | 36           | 10.5            | 9.01    |         | Ant 1        | 802.11a c-VHT20 | 36           | 10.5         | 8.96             |         | Ant 1        | 802.11a c-VHT20 | 36           | 10.5    | 9            |                  |         |       |         |       |
|                | 40-60           | 12      | 11.02   |         |              |                | 40-60        | 16              | 15.1    |         |              |                 | 40-60        | 16           | 15.18            |         |              |                 | 40-60        | 16      | 15.09        |                  |         |       |         |       |
|                | 64-100          | 10.5    | 9.84    |         |              |                | 64-100       | 10.5            | 9.05    |         |              |                 | 64-100       | 10.5         | 9.84             |         |              |                 | 64-100       | 10.5    | 9.04         |                  |         |       |         |       |
|                | 104-136         | 12      | 11.22   |         |              |                | 104-136      | 16              | 15.24   |         |              |                 | 104-136      | 16           | 14.72            |         |              |                 | 104-136      | 16      | 15.21        |                  |         |       |         |       |
|                | 140             | 11      | 9.94    |         |              |                | 140          | 11              | 9.68    |         |              |                 | 140          | 11           | 9.94             |         |              |                 | 140          | 11      | 9.64         |                  |         |       |         |       |
|                | 149             | 11.5    | 10.51   |         |              |                | 149          | 11.5            | 10.87   |         |              |                 | 149-165      | 11.5         | 10.9             |         |              |                 | 149-165      | 11.5    | 11.47        |                  |         |       |         |       |
| 153-161        | 12              | 10.9    | 153-161 |         |              | 16             | 15.4         | 153-161         | 16      |         |              | 14.88           | 153-161      | 16           | 14.88            |         |              | 153-161         | 16           | 14.88   |              |                  |         |       |         |       |
| 165            | 11.5            | 10.17   | 165     | 11.5    |              | 11.04          | 165          | 11.5            | 11.26   | 165     |              | 11.5            | 11.26        | 165          | 11.5             | 11.26   |              |                 |              |         |              |                  |         |       |         |       |
| 802.11ac-VHT40 | 38              | 9.5     | 8.18    | Ant 1   |              | 802.11ac-VHT40 | 38           | 9.5             | 8.44    | Ant 1   |              | 802.11a c-VHT40 | 38           | 9.5          | 8.18             | Ant 1   |              | 802.11a c-VHT40 | 38           | 9.5     | 8.45         |                  |         |       |         |       |
|                | 46-54           | 12      | 10.87   |         |              |                | 46-54        | 15.5            | 14.61   |         |              |                 | 46-54        | 15.5         | 14.37            |         |              |                 | 46-54        | 15.5    | 14.59        |                  |         |       |         |       |
|                | 62              | 9       | 7.45    |         |              |                | 62           | 9               | 7.05    |         |              |                 | 62           | 9            | 7.45             |         |              |                 | 62           | 9       | 7.04         |                  |         |       |         |       |
|                | 102             | 9.5     | 8.07    |         |              |                | 102          | 9.5             | 8.49    |         |              |                 | 102          | 9.5          | 8.07             |         |              |                 | 102          | 9.5     | 8.45         |                  |         |       |         |       |
|                | 110-126         | 12      | 11.38   |         |              |                | 110-126      | 15.5            | 14.4    |         |              |                 | 110-126      | 15.5         | 14.88            |         |              |                 | 110-126      | 15.5    | 14.38        |                  |         |       |         |       |
|                | 134             | 9.5     | 8.51    |         |              |                | 134          | 9.5             | 7.82    |         |              |                 | 134          | 9.5          | 8.51             |         |              |                 | 134          | 9.5     | 7.81         |                  |         |       |         |       |
| 802.11ac-VHT80 | 151-159         | 12      | 11.26   |         | Ant 1        | 802.11ac-VHT80 | 151-159      | 15.5            | 14.48   |         | Ant 1        | 802.11a c-VHT80 | 151-159      | 11.5         | 11.26            |         | Ant 1        | 802.11a c-VHT80 | 151-159      | 11.5    | 10.97        |                  |         |       |         |       |
|                | 42-58           | 6.5     | 5.88    |         |              |                | 42-122       | 6.5             | 5.74    |         |              |                 | 42-122       | 6.5          | 5.88             |         |              |                 | 42-122       | 6.5     | 5.75         |                  |         |       |         |       |
|                | 106-122         | 6.5     | 5.42    |         |              |                | 155          | 11.5            | 9.83    |         |              |                 | 155          | 11.5         | 10.25            |         |              |                 | 155          | 11.5    | 9.81         |                  |         |       |         |       |
|                | 155             | 11.5    | 10.25   |         |              |                | 50-114       | 6.5             | 5.57    |         |              |                 | 50-114       | 6.5          | 5.57             |         |              |                 | 50-114       | 6.5     | 5.54         |                  |         |       |         |       |
|                | 50-114          | 6.5     | 5.25    |         |              |                | 36           | 10.5            | 10.15   |         |              |                 | 36           | 10.5         | 10.15            |         |              |                 | 36           | 10.5    | 10.17        |                  |         |       |         |       |
|                | 802.11ac-VHT160 | 36      | 10.5    |         |              |                | 10.33        | Ant 2           | 802.11a |         |              |                 | 40-60        | 15.5         | 15.09            |         |              |                 | Ant 2        | 802.11a | 40-60        | 15.5             | 10.33   | Ant 2 | 802.11a | 40-60 |
| 40-60          |                 | 12      | 11.07   |         |              | 64-100         | 10.5         |                 |         |         |              | 9.54            | 40-60        | 15.5         | 14.57            |         |              | 64-100          |              |         | 10.5         | 9.53             |         |       |         |       |
| 64-100         |                 | 10.5    | 10.06   |         |              | 64-100         | 10.5         |                 |         |         |              | 9.16            | 64-100       | 10.5         | 10.06            |         |              | 64-100          |              |         | 10.5         | 9.53             |         |       |         |       |
| 104-136        |                 | 12      | 11.45   | 104-136 |              | 15.5           | 14.86        |                 |         | 104-136 |              | 15.5            | 14.95        | 104-136      | 15.5             | 14.86   |              |                 |              |         |              |                  |         |       |         |       |
| 140            |                 | 11      | 9.58    | 140     |              | 11             | 10.63        |                 |         | 140     |              | 11              | 9.58         | 140          | 11               | 10.62   |              |                 |              |         |              |                  |         |       |         |       |
| 149            |                 | 11.5    | 11.32   | 149     |              | 11.5           | 10.98        |                 |         | 149-165 |              | 11.5            | 11.36        | 149-165      | 11.5             | 11.18   |              |                 |              |         |              |                  |         |       |         |       |
| Ant 2          | 802.11a         | 140     | 11      | 9.58    |              | Ant 2          | 802.11a      |                 | 140     | 11      |              | 10.23           | Ant 2        | 802.11n-HT20 | 140              | 11      |              | 10.23           |              | Ant 2   | 802.11n-HT20 | 140              | 11      |       | 10.23   |       |
|                |                 | 149     | 11.5    | 11.32   |              |                |              |                 | 149     | 11.5    |              | 11.35           |              |              | 149-165          | 11.5    |              | 11.35           |              |         |              | 149-165          | 11.5    |       | 11.45   |       |
|                |                 | 153-161 | 12      | 11.68   |              |                |              |                 | 153-161 | 15.5    |              | 15.28           |              |              | 153-161          | 15.5    |              | 11.35           |              |         |              | 153-161          | 15.5    |       | 11.45   |       |
|                |                 | 165     | 11.5    | 10.81   | 165          |                |              |                 | 11.5    | 11.17   | 165          | 11.5            |              |              | 11.35            | 165     | 11.5         | 11.45           |              |         |              |                  |         |       |         |       |
|                |                 | 36      | 10.5    | 9.98    | 36           |                |              |                 | 10.5    | 9.72    | 36           | 10.5            |              |              | 9.97             | 36      | 10.5         | 9.73            |              |         |              |                  |         |       |         |       |
|                |                 | 40-60   | 12      | 11.32   | 40-60        |                |              |                 | 15.5    | 14.33   | 40-60        | 15.5            |              |              | 14.51            | 40-60   | 15.5         | 14.34           |              |         |              |                  |         |       |         |       |
| Ant 2          | 802.11n-HT20    | 64-100  | 10.5    | 9.16    | Ant 2        |                | 802.11n-HT20 |                 | 64-100  | 10.5    | 9.41         | Ant 2           |              | 802.11n-HT20 | 64-100           | 10.5    | 9.41         | Ant 2           |              |         | 802.11n-HT20 | 64-100           | 10.5    |       | 9.41    |       |
|                |                 | 104-136 | 12      | 11.82   |              |                |              |                 | 104-136 | 15.5    | 14.93        |                 |              |              | 104-136          | 15.5    | 14.73        |                 |              |         |              | 104-136          | 15.5    |       | 14.92   |       |
|                |                 | 140     | 11      | 10.23   |              |                |              | 140             | 11      | 10.24   | 140          |                 |              |              | 11               | 10.21   | 140          |                 | 11           |         |              | 10.23            |         |       |         |       |
|                |                 | 149     | 11.5    | 10.88   |              |                |              | 149             | 11.5    | 10.46   | 149          |                 |              |              | 11.5             | 11.36   | 149          |                 | 11.5         |         |              | 10.81            |         |       |         |       |
|                |                 | 153-161 | 12      | 11.35   |              |                |              | 153-161         | 15.5    | 15.06   | 153-161      |                 |              |              | 15.5             | 11.36   | 153-161      |                 | 15.5         |         |              | 10.81            |         |       |         |       |
|                |                 | 165     | 11.5    | 10.52   |              |                |              | 165             | 11.5    | 10.73   | 165          |                 |              |              | 11.5             | 11.37   | 165          |                 | 11.5         |         |              | 10.81            |         |       |         |       |
| Ant 2          | 802.11n-HT40    | 38      | 9.5     | 9.34    |              |                | Ant 2        | 802.11n-HT40    | 38      | 9.5     | 8.92         |                 |              | Ant 2        | 802.11n-HT40     | 38      | 9.5          |                 | 9.26         |         | Ant 2        | 802.11n-HT40     | 38      | 9.5   | 9.26    |       |
|                |                 | 46-54   | 12      | 11.77   |              |                |              |                 | 46-54   | 15      | 13.75        |                 |              |              |                  | 46-54   | 15           |                 | 14.51        |         |              |                  | 46-54   | 15    | 13.75   |       |
|                |                 | 62      | 9       | 7.27    |              | 62             |              |                 | 9       | 7.78    | 62           |                 | 9            |              |                  | 7.27    | 62           |                 | 9            | 7.78    |              |                  |         |       |         |       |
|                |                 | 102     | 9.5     | 8.64    |              | 102            |              |                 | 9.5     | 8.18    | 102          |                 | 9.5          |              |                  | 8.64    | 102          |                 | 9.5          | 8.22    |              |                  |         |       |         |       |
|                |                 | 110-126 | 12      | 11.73   |              | 110-126        |              |                 | 15      | 13.96   | 110-126      |                 | 15           |              |                  | 14.73   | 110-126      |                 | 15           | 13.95   |              |                  |         |       |         |       |
|                |                 | 134     | 9.5     | 9.05    |              | 134            |              |                 | 9.5     | 8.97    | 134          |                 | 9.5          |              |                  | 9.05    | 134          |                 | 9.5          | 9       |              |                  |         |       |         |       |
| Ant 2          | 802.11ac-VHT20  | 151-159 | 12      | 11.36   |              | Ant 2          |              | 802.11ac-VHT20  | 151-159 | 15      | 14.31        |                 | Ant 2        |              | 802.11a c-VHT20  | 151-159 | 11.5         |                 | 11.36        | Ant 2   |              | 802.11a c-VHT20  | 151-159 | 11.5  | 10.81   |       |
|                |                 | 36      | 10.5    | 9.97    |              |                |              |                 | 36      | 10.5    | 9.27         |                 |              |              |                  | 36      | 10.5         |                 | 9.97         |         |              |                  | 36      | 10.5  | 9.26    |       |
|                |                 | 40-60   | 12      | 11.56   | 40-60        |                |              |                 | 15.5    | 14.88   | 40-60        | 15.5            |              |              |                  | 15.06   | 40-60        | 15.5            | 14.87        |         |              |                  |         |       |         |       |
|                |                 | 64-100  | 10.5    | 9.33    | 64-100       |                |              |                 | 10.5    | 9.31    | 64-100       | 10.5            |              |              |                  | 9.33    | 64-100       | 10.5            | 9.31         |         |              |                  |         |       |         |       |
|                |                 | 104-136 | 12      | 11.8    | 104-136      |                |              |                 | 15.5    | 14.9    | 104-136      | 15.5            |              |              |                  | 15.3    | 104-136      | 15.5            | 14.91        |         |              |                  |         |       |         |       |
|                |                 | 140     | 11      | 10.21   | 140          |                |              |                 | 11      | 10.32   | 140          | 11              |              |              |                  | 10.21   | 140          | 11              | 10.3         |         |              |                  |         |       |         |       |
| Ant 2          | 802.11ac-VHT40  | 149     | 11.5    | 10.98   | Ant 2        |                |              | 802.11ac-VHT40  | 149     | 11.5    | 10.45        | Ant 2           |              |              | 802.11a c-VHT40  | 149-165 | 11.5         | 11.37           | Ant 2        |         |              | 802.11a c-VHT40  | 149-165 | 11.5  | 11.41   |       |
|                |                 | 36      | 10.5    | 9.34    |              |                |              |                 | 36      | 10.5    | 8.18         |                 |              |              |                  | 36      | 10.5         | 9.34            |              |         |              |                  | 36      | 10.5  | 9.26    |       |
|                |                 | 46-54   | 12      | 11.77   |              |                | 46-54        |                 | 15      | 13.75   | 46-54        |                 |              | 15           |                  | 14.51   | 46-54        | 15              |              |         | 14.24        |                  |         |       |         |       |
|                |                 | 62      | 9       | 7.27    |              |                | 62           |                 | 9       | 7.78    | 62           |                 |              | 9            |                  | 7.27    | 62           | 9               |              |         | 7.72         |                  |         |       |         |       |
|                |                 | 102     | 9.5     | 8.64    |              |                | 102          |                 | 9.5     | 8.18    | 102          |                 |              | 9.5          |                  | 8.64    | 102          | 9.5             |              |         | 7.92         |                  |         |       |         |       |
|                |                 | 110-126 | 12      | 11.73   |              |                | 110-126      |                 | 15      | 13.96   | 110-126      |                 |              | 15           |                  | 14.73   | 110-126      | 15              |              |         | 13.83        |                  |         |       |         |       |
| Ant 2          | 802.11ac-VHT80  | 134     | 9.5     | 9.05    |              |                | Ant 2        | 802.11ac-VHT80  | 134     | 9.5     | 8.97         |                 |              | Ant 2        | 802.11a c-VHT80  | 134     | 9.5          | 9.05            |              |         | Ant 2        | 802.11a c-VHT80  | 134     | 9.5   | 9.05    |       |
|                |                 | 151-159 | 12      | 11.36   |              |                |              |                 | 151-159 | 15      | 14.31        |                 |              |              |                  | 151-159 | 11.5         | 11.36           |              |         |              |                  | 151-159 | 11.5  | 10.54   |       |
|                |                 | 36      | 10.5    | 9.97    |              | 36             |              |                 | 10.5    | 9.27    | 36           |                 | 10.5         |              |                  | 9.97    | 36           | 10.5            |              | 9.26    |              |                  |         |       |         |       |
|                |                 | 40-60   | 12      | 11.56   |              | 40-60          |              |                 | 15.5    | 14.88   | 40-60        |                 | 15.5         |              |                  | 15.06   | 40-60        | 15.5            |              | 14.87   |              |                  |         |       |         |       |
|                |                 | 64-100  | 10.5    | 9.33    |              | 64-100         |              |                 | 10.5    | 9.31    | 64-100       |                 | 10.5         |              |                  | 9.33    | 64-100       | 10.5            |              | 9.31    |              |                  |         |       |         |       |
|                |                 | 104-136 | 12      | 11.8    |              | 104-136        |              |                 | 15.5    | 14.9    | 104-136      |                 | 15.5         |              |                  | 15.3    | 104-136      | 15.5            |              | 14.91   |              |                  |         |       |         |       |
| Ant 2          | 802.11ac-VHT160 | 140     | 11      | 10.21   |              | Ant 2          |              | 802.11ac-VHT160 | 140     | 11      | 10.32        |                 | Ant 2        |              | 802.11a c-VHT160 | 140     | 11           | 10.21           |              | Ant 2   |              | 802.11a c-VHT160 | 140     | 11    | 10.3    |       |
|                |                 | 149     | 11.5    | 10.98   |              |                |              |                 | 149     | 11.5    | 10.45        |                 |              |              |                  | 149-165 | 11.5         | 11.37           |              |         |              |                  | 149-165 | 11.5  | 11.41   |       |
|                |                 | 36      | 10.5    | 9.97    | 36           |                |              |                 | 10.5    | 9.27    | 36           | 10.5            |              |              |                  | 9.97    | 36           | 10.5            | 9.26         |         |              |                  |         |       |         |       |
|                |                 | 40-60   | 12      | 11.56   | 40-60        |                |              |                 | 15.5    | 14.88   | 40-60        | 15.5            |              |              |                  | 15.06   | 40-60        | 15.5            | 14.87        |         |              |                  |         |       |         |       |
|                |                 | 64-100  | 10.5    | 9.33    | 64-100       |                |              |                 | 10.5    | 9.31    | 64-100       | 10.5            |              |              |                  | 9.33    | 64-100       | 10.5            | 9.31         |         |              |                  |         |       |         |       |
|                |                 | 104-136 | 12      | 11.8    | 104-136      |                |              |                 | 15.5    | 14.9    | 104-136      | 15.5            |              |              |                  | 15.3    | 104-136      | 15.5            | 14.91        |         |              |                  |         |       |         |       |
| Ant 2          | 802.11ac-VHT160 | 140     | 11      | 10.21   | Ant 2        |                |              | 802.11ac-VHT160 | 140     | 11      | 10.32        | Ant 2           |              |              | 802.11a c-VHT160 | 140     | 11           | 10.21           | Ant 2        |         |              | 802.11a c-VHT160 | 140     | 11    | 10.3    |       |
|                |                 | 149     | 11.5    | 10.98   |              |                |              |                 | 149     | 11.5    | 10.45        |                 |              |              |                  | 149-165 | 11.5         | 11.37           |              |         |              |                  | 149-165 | 11.5  | 11.41   |       |
|                |                 | 36      | 10.5    | 9.97    |              |                | 36           |                 | 10.5    |         |              |                 |              |              |                  |         |              |                 |              |         |              |                  |         |       |         |       |



|                    |                    |         |       |         |   |                     |         |       |       |      |                        |         |      |       |   |                        |         |      |       |   |   |
|--------------------|--------------------|---------|-------|---------|---|---------------------|---------|-------|-------|------|------------------------|---------|------|-------|---|------------------------|---------|------|-------|---|---|
|                    | 802.11ac<br>-VHT40 | 165     | 11.5  | 11.37   |   | 802.11ac<br>-VHT40  | 38      | 9.5   | 9.25  | MIMO | 802.11n<br>-HT20       | 40-60   | 18.8 | 17.99 |   | 802.11n<br>-HT20       | 64-100  | 13.5 | 12.42 |   |   |
|                    |                    | 38      | 9.5   | 8.34    |   |                     | 46-54   | 15    | 14.26 |      |                        | 64-100  | 13.5 | 12.56 |   |                        | 104-136 | 18.8 | 18.31 |   |   |
|                    |                    | 46-54   | 12    | 11.67   |   |                     | 62      | 9     | 7.72  |      |                        | 104-136 | 18.8 | 17.87 |   |                        | 140     | 14   | 13.73 |   |   |
|                    |                    | 62      | 9     | 7.41    |   |                     | 102     | 9.5   | 7.94  |      |                        | 140     | 14   | 13.09 |   |                        | 149-165 | 14.5 | 13.59 |   |   |
|                    |                    | 102     | 9.5   | 8.5     |   |                     | 110-126 | 15    | 13.79 |      |                        | 149-165 | 14.5 | 14.5  |   |                        | 36      | 13.5 | 12.68 |   |   |
|                    |                    | 110-126 | 12    | 10.75   |   |                     | 134     | 9.5   | 8.67  |      |                        | 36      | 13.5 | 12.49 |   |                        | 40-60   | 18.8 | 17.99 |   |   |
|                    |                    | 134     | 9.5   | 9.1     |   |                     | 151-159 | 15    | 14.05 |      |                        | 40-60   | 18.8 | 17.6  |   |                        | 64-100  | 13.5 | 12.25 |   |   |
|                    |                    | 151-159 | 12    | 10.94   |   |                     | 42-122  | 6.5   | 5.94  |      |                        | 64-100  | 13.5 | 12.27 |   |                        | 104-136 | 18.8 | 17.91 |   |   |
|                    |                    | 42-58   | 6.5   | 5.73    |   |                     | 155     | 11.5  | 9.91  |      |                        | 104-136 | 18.8 | 18.06 |   |                        | 140     | 14   | 12.91 |   |   |
|                    |                    | 106-122 | 6.5   | 5.63    |   |                     | 50-114  | 6.5   | 5.21  |      |                        | 140     | 14   | 13.1  |   |                        | 149-165 | 14.5 | 14.24 |   |   |
|                    | 802.11ac<br>-VHT80 | 155     | 11.5  | 10.69   |   | 802.11ac<br>-VHT160 | 36      | 13.5  | 13.33 |      | 802.11n<br>-HT40       | 38      | 12.5 | 11.83 |   | 802.11n<br>-HT40       | 38      | 12.5 | 12.02 |   |   |
|                    |                    | 50-114  | 6.5   | 6.48    |   |                     | 40-60   | 18.8  | 18.41 |      |                        | 46-54   | 18.3 | 18.05 |   |                        | 46-54   | 18.3 | 17.49 |   |   |
|                    |                    | 36      | 13.5  | 12.74   |   |                     | 64-100  | 13.5  | 12.43 |      |                        | 62      | 12   | 10.38 |   |                        | 62      | 12   | 10.42 |   |   |
| CDD/<br>MIMO       | 802.11a            | 40-60   | 15    | 14.49   |   | 802.11a             | 104-136 | 18.8  | 18.31 |      | 802.11n<br>-HT40       | 62      | 12   | 10.38 |   | 802.11n<br>-HT40       | 102     | 12.5 | 10.9  |   |   |
|                    |                    | 64-100  | 13.5  | 12.56   |   |                     | 140     | 14    | 13.74 |      |                        | 110-126 | 18.3 | 17.61 |   |                        | 110-126 | 18.3 | 17.02 |   |   |
|                    |                    | 104-136 | 15    | 14.37   |   |                     | 149     | 17.3  | 14.23 |      |                        | 134     | 12.5 | 11.78 |   |                        | 134     | 12.5 | 11.4  |   |   |
|                    |                    | 140     | 14    | 13.09   |   |                     | 153-161 | 18.8  | 18.61 |      |                        | 151-159 | 14.5 | 14.42 |   |                        | 151-159 | 14.5 | 13.64 |   |   |
|                    |                    | 149     | 14.5  | 14.05   |   |                     | 165     | 16.6  | 14.33 |      |                        | 36      | 13.5 | 12.5  |   |                        | 36      | 13.5 | 12.15 |   |   |
|                    |                    | 153-161 | 15    | 14.5    |   |                     | 36      | 13.5  | 12.69 |      |                        | 40-60   | 18.8 | 17.67 |   |                        | 40-60   | 18.8 | 17.99 |   |   |
|                    |                    | 165     | 14.5  | 13.69   |   |                     | 40-60   | 18.8  | 18    |      |                        | 64-100  | 13.5 | 12.6  |   |                        | 64-100  | 13.5 | 12.18 |   |   |
|                    |                    | 36      | 13.5  | 12.49   |   |                     | 104-136 | 18.8  | 17.91 |      |                        | 104-136 | 18.8 | 18.03 |   |                        | 104-136 | 18.8 | 17.93 |   |   |
|                    |                    | 40-60   | 15    | 14.1    |   |                     | 140     | 14    | 12.91 |      |                        | 140     | 14   | 13.09 |   |                        | 140     | 14   | 13.01 |   |   |
|                    |                    | 64-100  | 13.5  | 12.27   |   |                     | 149     | 17.3  | 13.71 |      |                        | 149-165 | 14.5 | 14.09 |   |                        | 149-165 | 14.5 | 14.33 |   |   |
|                    | 802.11n<br>-HT20   | 104-136 | 15    | 14.56   |   | 802.11n<br>-HT20    | 153-161 | 18.8  | 18.25 |      | 802.11a<br>c-VHT2<br>0 | 38      | 12.5 | 11.27 |   | 802.11a<br>c-VHT2<br>0 | 38      | 12.5 | 11.86 |   |   |
|                    |                    | 140     | 14    | 13.1    |   |                     | 165     | 16.6  | 13.75 |      |                        | 46-54   | 18.3 | 17.95 |   |                        | 46-54   | 18.3 | 17.45 |   |   |
|                    |                    | 149     | 14.5  | 13.72   |   |                     | 38      | 12.5  | 12.02 |      |                        | 62      | 12   | 10.44 |   |                        | 62      | 12   | 10.4  |   |   |
|                    |                    | 153-161 | 15    | 14.16   |   |                     | 46-54   | 18.3  | 17.49 |      |                        | 102     | 12.5 | 11.3  |   |                        | 102     | 12.5 | 11.22 |   |   |
|                    |                    | 165     | 14.5  | 13.13   |   |                     | 62      | 12    | 10.43 |      |                        | 110-126 | 18.3 | 17.53 |   |                        | 110-126 | 18.3 | 16.9  |   |   |
|                    |                    | 38      | 12.5  | 11.83   |   |                     | 102     | 12.5  | 10.93 |      |                        | 134     | 12.5 | 11.83 |   |                        | 134     | 12.5 | 11.25 |   |   |
|                    |                    | 46-54   | 15    | 14.55   |   |                     | 110-126 | 18.3  | 17.06 |      |                        | 151-159 | 14.5 | 14.11 |   |                        | 151-159 | 14.5 | 14.18 |   |   |
|                    |                    | 62      | 12    | 10.38   |   |                     | 134     | 12.5  | 11.43 |      |                        | 42-122  | 9.5  | 8.82  |   |                        | 42-122  | 9.5  | 8.95  |   |   |
|                    |                    | 102     | 12.5  | 11.6    |   |                     | 151     | 18.3  | 17.27 |      |                        | 155     | 14.5 | 13.49 |   |                        | 155     | 14.5 | 12.88 |   |   |
|                    |                    | 110-126 | 15    | 14.11   |   |                     | 159     | 17.8  | 17.45 |      |                        | 50-114  | 9.5  | 8.86  |   |                        | 50-114  | 9.5  | 8.59  |   |   |
|                    | 802.11n<br>-HT40   | 134     | 12.5  | 11.78   |   | 802.11n<br>-HT40    | 36      | 13.5  | 12.15 |      | 802.11a<br>c-VHT8<br>0 | /       | /    | /     |   | 802.11a<br>c-VHT8<br>0 | /       | /    | /     |   |   |
|                    |                    | 151-159 | 15    | 14.42   |   |                     | 40-60   | 18.8  | 18    |      |                        | /       | /    | /     |   |                        | /       | /    | /     | / | / |
|                    |                    | 36      | 13.5  | 12.5    |   |                     | 64-100  | 13.5  | 12.19 |      |                        | /       | /    | /     |   |                        | /       | /    | /     | / |   |
|                    |                    | 40-60   | 15    | 14.17   |   |                     | 104-136 | 18.8  | 17.95 |      |                        | /       | /    | /     |   |                        | /       | /    | /     | / |   |
|                    |                    | 64-100  | 13.5  | 12.6    |   |                     | 140     | 14    | 13.02 |      |                        | /       | /    | /     |   |                        | /       | /    | /     | / |   |
|                    |                    | 104-136 | 15    | 14.53   |   |                     | 149     | 17.3  | 13.68 |      |                        | /       | /    | /     |   |                        | /       | /    | /     | / |   |
|                    |                    | 140     | 14    | 13.09   |   |                     | 153-161 | 18.8  | 18.27 |      |                        | /       | /    | /     |   |                        | /       | /    | /     | / |   |
|                    |                    | 149     | 14.5  | 13.76   |   |                     | 165     | 16.6  | 14.08 |      |                        | /       | /    | /     |   |                        | /       | /    | /     | / |   |
|                    |                    | 153-161 | 15    | 14.09   |   |                     | 38      | 12.5  | 11.87 |      |                        | /       | /    | /     |   |                        | /       | /    | /     | / |   |
|                    |                    | 165     | 14.5  | 13.82   |   |                     | 46-54   | 18.3  | 17.45 |      |                        | /       | /    | /     |   |                        | /       | /    | /     | / |   |
|                    | 802.11ac<br>-VHT40 | 38      | 12.5  | 11.27   |   | 802.11ac<br>-VHT40  | 62      | 12    | 10.41 |      | 802.11a<br>c-VHT4<br>0 | 62      | 12   | 10.44 |   | 802.11a<br>c-VHT4<br>0 | 62      | 12   | 10.4  |   |   |
|                    |                    | 46-54   | 15    | 14.45   |   |                     | 102     | 12.5  | 11.23 |      |                        | /       | /    | /     |   |                        | /       | /    | /     | / |   |
| 62                 |                    | 12      | 10.44 | 110-126 |   |                     | 18.3    | 16.92 | /     |      |                        | /       | /    | /     |   |                        | /       | /    | /     |   |   |
| 102                |                    | 12.5    | 11.3  | 134     |   |                     | 12.5    | 11.28 | /     |      |                        | /       | /    | /     |   |                        | /       | /    | /     |   |   |
| 110-126            |                    | 15      | 14.03 | 151     |   |                     | 18.3    | 17.28 | /     |      |                        | /       | /    | /     |   |                        | /       | /    | /     |   |   |
| 134                |                    | 12.5    | 11.83 | 159     |   |                     | 17.8    | 16.93 | /     |      |                        | /       | /    | /     |   |                        | /       | /    | /     |   |   |
| 151-159            |                    | 15      | 14.11 | 42-122  |   |                     | 9.5     | 8.95  | /     |      |                        | /       | /    | /     |   |                        | /       | /    | /     |   |   |
| 42-58              |                    | 9.5     | 8.82  | 155     |   |                     | 14.5    | 12.88 | /     |      |                        | /       | /    | /     |   |                        | /       | /    | /     |   |   |
| 106-122            |                    | 9.5     | 8.35  | 50-114  |   |                     | 9.5     | 8.6   | /     |      |                        | /       | /    | /     |   |                        | /       | /    | /     |   |   |
| 155                |                    | 14.5    | 13.49 | /       |   |                     | /       | /     | /     |      |                        | /       | /    | /     |   |                        | /       | /    | /     |   |   |
| 802.11ac<br>-VHT80 | 50-114             | 9.5     | 8.86  | /       | / | /                   | /       | /     | /     | /    | /                      | /       | /    | /     | / | /                      | /       |      |       |   |   |
|                    | /                  | /       | /     | /       | / | /                   | /       | /     | /     | /    | /                      | /       | /    | /     | / | /                      | /       |      |       |   |   |

Note: 1)For FCC SAR test, Wi-Fi SAR test should be evaluated at the power level of FCC mobile country code for each exposure conditions of WIFI .

2)The detailed full power and reduced conducted power measurement results are provided in Section 9of this report



### 5.3.8.3 Power reduction Specification of 2G&3G&4G Main antenna

The following tables summarize the key power reduction information of 2G/3G/4G main antenna. The detailed full power and reduced conducted power measurement results are provided in Section 9 of this report.

| Band         | Main antenna only |            |              |            |                              |                           |                        |                        |                          |                          |                              |                           |                        |                        |                          |                          |
|--------------|-------------------|------------|--------------|------------|------------------------------|---------------------------|------------------------|------------------------|--------------------------|--------------------------|------------------------------|---------------------------|------------------------|------------------------|--------------------------|--------------------------|
|              | Receiver on       |            | Receiver off |            |                              |                           |                        |                        |                          |                          |                              |                           |                        |                        |                          |                          |
|              |                   |            | sensor off   |            | sensor on*                   |                           |                        |                        |                          |                          |                              |                           |                        |                        |                          |                          |
|              |                   |            |              |            | /                            |                           |                        |                        |                          |                          | Hotspot on                   |                           |                        |                        |                          |                          |
|              | Full power        | Hotspot on | Hotspot off  | Hotspot on | Reduced Power Level D1&D2*** | Reduced Power Level D3*** | Reduced Power Level D4 | Reduced Power Level D5 | Reduced Power Level D7** | Reduced Power Level D8** | Reduced Power Level D1&D2*** | Reduced Power Level D3*** | Reduced Power Level D4 | Reduced Power Level D5 | Reduced Power Level D7** | Reduced Power Level D8** |
| GSM850       | 0                 | /          | 0            | 1          | 0                            | 0                         | /                      | /                      | 0                        | /                        | 1                            | 1                         | /                      | /                      | 1                        | /                        |
| GSM1900      | 0                 | /          | 0            | 1          | 0                            | 0                         | /                      | /                      | 0                        | /                        | 1                            | 1                         | /                      | /                      | 1                        | /                        |
| UMTS Band II | 0                 | 3          | 0            | 3.5        | 1                            | 0                         | /                      | /                      | 0                        | /                        | 4.5                          | 3.5                       | /                      | /                      | 3.5                      | /                        |
| UMTS Band IV | 0                 | 3          | 0            | 3          | 1                            | 0                         | /                      | /                      | 0                        | /                        | 4                            | 3                         | /                      | /                      | 3                        | /                        |
| UMTS Band V  | 0                 | 1          | 0            | 1          | 0                            | 0                         | /                      | /                      | 0                        | /                        | 1                            | 1                         | /                      | /                      | 1                        | /                        |
| LTE Band 2   | 0                 | 2.5        | 0            | 2.5        | 0.5                          | 0                         | /                      | /                      | 0                        | /                        | 3                            | 2.5                       | /                      | /                      | 2.5                      | /                        |
| LTE Band 4   | 0                 | 2.5        | 0            | 2.5        | 1                            | 0                         | /                      | /                      | 0                        | /                        | 3.5                          | 2.5                       | /                      | /                      | 2.5                      | /                        |
| LTE Band 5   | 0                 | 1          | 0            | 1          | 0                            | 0                         | /                      | /                      | 0                        | /                        | 1                            | 1                         | /                      | /                      | 1                        | /                        |
| LTE Band 7   | 0                 | 3.5        | 0            | 3.5        | 2.5                          | 1.5                       | /                      | /                      | 0                        | /                        | 6                            | 5                         | /                      | /                      | 3.5                      | /                        |
| LTE Band 12  | 0                 | 0.5        | 0            | 0.5        | 0                            | 0                         | /                      | /                      | 0                        | /                        | 0.5                          | 0.5                       | /                      | /                      | 0.5                      | /                        |
| LTE Band 17  | 0                 | 0.5        | 0            | 0.5        | 0                            | 0                         | /                      | /                      | 0                        | /                        | 0.5                          | 0.5                       | /                      | /                      | 0.5                      | /                        |
| LTE Band 26  | 0                 | 1          | 0            | 1          | 0                            | 0                         | /                      | /                      | 0                        | /                        | 1                            | 1                         | /                      | /                      | 1                        | /                        |
| LTE Band 38  | 0                 | 2          | 0            | 2          | 1                            | 0                         | /                      | /                      | 0                        | /                        | 3                            | 2                         | /                      | /                      | 2                        | /                        |
| LTE Band 40  | 0                 | 0          | 0            | 0          | 0                            | 0                         | /                      | /                      | 0                        | /                        | 0                            | 0                         | /                      | /                      | 0                        | /                        |
| LTE Band 41  | 0                 | 1.5        | 0            | 1.5        | 0                            | 0                         | /                      | /                      | 0                        | /                        | 1.5                          | 1.5                       | /                      | /                      | 1.5                      | /                        |

Note:

- 1) \* Reduced Power Level D4 or Reduced Power Level D5 is determined by different sensor Trigger Distance ranges when hotspot is off(Main antenna only);
- 2) \*\* Reduced Power Level D7 or Reduced Power Level D8 is determined by different sensor Trigger Distance range when hotspot is on;
- 3) \*\*\* Reduced Power Level D2 or Reduced Power Level D3 is determined by different sensor Trigger Distance range when Main antenna transmits simultaneously with WiFi Station/P2P
- 4) For some frequency bands, the power reduction level amount value 0 means there is no power reduction in this frequency band and exposure conditions. The power level is the same as full power.
- 5) Please refer to section 6.9.4 for detailed Proximity sensor power reduction test configuration and validation results per KDB616217.

### 5.3.9 Proximity sensor Configuration

Due to the operating configurations and exposure conditions required by the device, the proximity sensor is used to indicate when the device is held close to a user's body/hotspot exposure condition. It utilizes the proximity sensor to reduce the output power in specific wireless and operating modes of main antenna to ensure SAR compliance. It is also set an output power leveled to the lowest one to make sure that in any case of SAR sensor hardware failure, the SAR requirements can still be satisfied.

The following tables summarize the key power reduction information for proximity sensor. The test procedures in KDB 616217 should be applied to determine proximity sensor triggering distances, and sensor coverage for normal and tilt positions. To ensure all production units are compliant, it is generally necessary to reduce the triggering distance determined from the triggering tests by 1 mm, or more if it is necessary, and use the smallest distance for movements to and from the phantom, minus 1 mm, as the sensor triggering distance for determining the SAR measurement distance.

| Main antenna |               |                                                   |                            |                      |                        |
|--------------|---------------|---------------------------------------------------|----------------------------|----------------------|------------------------|
| Band         | Test position | Sensor Trigger Distance range (DUT to Phantom)    | Power reduction amount(dB) | Max Power level(dBm) | Power level            |
| UMTS Band II | Bottom side   | $0\text{mm} \leq \text{distance} \leq 8\text{mm}$ | 1                          | 24                   | Reduced Power Level D2 |
|              |               | $8\text{mm} < \text{distance}$                    | 0                          | 25                   | Reduced Power Level D7 |
|              | Back side     | $0\text{mm} \leq \text{distance} \leq 5\text{mm}$ | 1                          | 24                   | Reduced Power Level D2 |
|              |               | $5\text{mm} < \text{distance}$                    | 0                          | 25                   | Reduced Power Level D7 |
|              | Front side    | $0\text{mm} \leq \text{distance} \leq 4\text{mm}$ | 1                          | 24                   | Reduced Power Level D2 |
|              |               | $4\text{mm} < \text{distance}$                    | 0                          | 25                   | Reduced Power Level D7 |
|              | Left side     | ALL                                               | 0                          | 25                   | Reduced Power Level D7 |
|              | Right side    | ALL                                               | 0                          | 25                   | Reduced Power Level D7 |
|              | Top side      | ALL                                               | 0                          | 25                   | Reduced Power Level D7 |
| UMTS Band IV | Bottom side   | $0\text{mm} \leq \text{distance} \leq 8\text{mm}$ | 1                          | 24                   | Reduced Power Level D2 |
|              |               | $8\text{mm} < \text{distance}$                    | 0                          | 25                   | Reduced Power Level D7 |
|              | Back side     | $0\text{mm} \leq \text{distance} \leq 5\text{mm}$ | 1                          | 24                   | Reduced Power Level D2 |
|              |               | $5\text{mm} < \text{distance}$                    | 0                          | 25                   | Reduced Power Level D7 |
|              | Front side    | $0\text{mm} \leq \text{distance} \leq 4\text{mm}$ | 1                          | 24                   | Reduced Power Level D2 |
|              |               | $4\text{mm} < \text{distance}$                    | 0                          | 25                   | Reduced Power Level D7 |
|              | Left side     | ALL                                               | 0                          | 25                   | Reduced Power Level D2 |
|              | Right side    | ALL                                               | 0                          | 25                   | Reduced Power Level D7 |
|              | Top side      | ALL                                               | 0                          | 25                   | Reduced Power Level D7 |
| LTE B2       | Bottom side   | $0\text{mm} \leq \text{distance} \leq 8\text{mm}$ | 0.5                        | 23.5                 | Reduced Power Level D2 |
|              |               | $8\text{mm} < \text{distance}$                    | 0                          | 24                   | Reduced Power Level D7 |
|              | Back side     | $0\text{mm} \leq \text{distance} \leq 5\text{mm}$ | 0.5                        | 23.5                 | Reduced Power Level D2 |
|              |               | $5\text{mm} < \text{distance}$                    | 0                          | 24                   | Reduced Power Level D7 |
|              | Front side    | $0\text{mm} \leq \text{distance} \leq 4\text{mm}$ | 0.5                        | 23.5                 | Reduced Power Level D2 |
|              |               | $4\text{mm} < \text{distance}$                    | 0                          | 24                   | Reduced Power Level D7 |

|         |             |                                                   |     |        |                        |
|---------|-------------|---------------------------------------------------|-----|--------|------------------------|
|         | Left side   | ALL                                               | 0   | 24     | Reduced Power Level D7 |
|         | Right side  | ALL                                               | 0   | 24     | Reduced Power Level D7 |
|         | Top side    | ALL                                               | 0   | 24     | Reduced Power Level D7 |
| LTE B4  | Bottom side | $0\text{mm} \leq \text{distance} \leq 8\text{mm}$ | 0.5 | 23.5   | Reduced Power Level D2 |
|         |             | $8\text{mm} < \text{distance}$                    | 0   | 24     | Reduced Power Level D7 |
|         | Back side   | $0\text{mm} \leq \text{distance} \leq 5\text{mm}$ | 0.5 | 23.5   | Reduced Power Level D2 |
|         |             | $5\text{mm} < \text{distance}$                    | 0   | 24     | Reduced Power Level D7 |
|         | Front side  | $0\text{mm} \leq \text{distance} \leq 4\text{mm}$ | 0.5 | 23.5   | Reduced Power Level D2 |
|         |             | $4\text{mm} < \text{distance}$                    | 0   | 24     | Reduced Power Level D7 |
|         | Left side   | ALL                                               | 0   | 24     | Reduced Power Level D7 |
|         | Right side  | ALL                                               | 0   | 24     | Reduced Power Level D7 |
|         | Top side    | ALL                                               | 0   | 24     | Reduced Power Level D7 |
| LTE B7  | Bottom side | $0\text{mm} \leq \text{distance} \leq 8\text{mm}$ | 2.5 | 21.5   | Reduced Power Level D2 |
|         |             | $8\text{mm} < \text{distance} \leq 12\text{mm}$   | 1.5 | 22.5   | Reduced Power Level D3 |
|         |             | $\text{distance} > 12\text{mm}$                   | 0   | 24     | Reduced Power Level D7 |
|         | Back side   | $0\text{mm} \leq \text{distance} \leq 5\text{mm}$ | 2.5 | 21.5   | Reduced Power Level D2 |
|         |             | $5\text{mm} < \text{distance} \leq 8\text{mm}$    | 1.5 | 22.5   | Reduced Power Level D3 |
|         |             | $\text{distance} > 8\text{mm}$                    | 0   | 24     | Reduced Power Level D7 |
|         | Front side  | $0\text{mm} \leq \text{distance} \leq 4\text{mm}$ | 2.5 | 21.5   | Reduced Power Level D2 |
|         |             | $4\text{mm} < \text{distance} \leq 7\text{mm}$    | 1.5 | 22.5   | Reduced Power Level D3 |
|         |             | $\text{distance} > 7\text{mm}$                    | 0   | 24     | Reduced Power Level D7 |
|         | Left side   | ALL                                               | 0   | 24     | Reduced Power Level D7 |
|         | Right side  | ALL                                               | 0   | 24     | Reduced Power Level D7 |
|         | Top side    | ALL                                               | 0   | 24     | Reduced Power Level D7 |
| LTE B38 | Bottom side | $0\text{mm} \leq \text{distance} \leq 8\text{mm}$ | 1   | 22.625 | Reduced Power Level D2 |
|         |             | $8\text{mm} < \text{distance}$                    | 0   | 23.625 | Reduced Power Level D7 |
|         |             | $0\text{mm} \leq \text{distance} \leq 5\text{mm}$ | 1   | 22.625 | Reduced Power Level D2 |
|         | Back side   | $5\text{mm} < \text{distance}$                    | 0   | 23.625 | Reduced Power Level D7 |
|         |             | $0\text{mm} \leq \text{distance} \leq 4\text{mm}$ | 1   | 22.625 | Reduced Power Level D2 |
|         |             | $4\text{mm} < \text{distance}$                    | 0   | 23.625 | Reduced Power Level D7 |
|         | Front side  | ALL                                               | 0   | 23.625 | Reduced Power Level D7 |
|         |             | ALL                                               | 0   | 23.625 | Reduced Power Level D7 |
|         |             | ALL                                               | 0   | 23.625 | Reduced Power Level D7 |
|         | Left side   | $0\text{mm} \leq \text{distance} \leq 8\text{mm}$ | 1   | 22.625 | Reduced Power Level D2 |
|         | Right side  | $8\text{mm} < \text{distance}$                    | 0   | 23.625 | Reduced Power Level D7 |
|         | Top side    | $0\text{mm} \leq \text{distance} \leq 5\text{mm}$ | 1   | 22.625 | Reduced Power Level D2 |

Note:

To ensure all production units are compliant, the smallest separation distance determined by the sensor triggering and sensor coverage for normal and tit positions for all usage conditions and

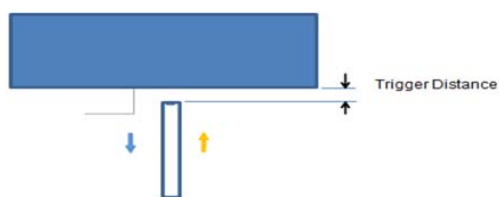
applicable sides, minus 1 mm, must be used as the test separation distance for additional SAR testing of each higher power stage.

For the other sides or other frequency bands of the device, SAR is still tested at the maximum full power level with sensor off.

### 1) Procedures for determining proximity sensor triggering distances

The device was tested by the test lab to determine the proximity sensor triggering distances for the front side, back side and bottom side of the device. To ensure all production units are compliant, the smallest separation distance determined by the sensor triggering minus 1 mm, must be used as the test separation distance for SAR testing.

The Proximity sensor triggering distance measurement method are as below:



Picture: Proximity sensor triggering distances assessment Bottom Side



Picture: Proximity sensor triggering distances assessment Front Side and Back side

**Table: Summary of Trigger Distances**

| Band         | Reduced Power Level    | Trigger distance- Bottom Side |                          | Trigger distance- Back Side |                          | Trigger distance- Front Side |                          |
|--------------|------------------------|-------------------------------|--------------------------|-----------------------------|--------------------------|------------------------------|--------------------------|
|              |                        | Moving toward Phantom         | Moving away from Phantom | Moving toward Phantom       | Moving away from Phantom | Moving toward Phantom        | Moving away from Phantom |
| UMTS Band II | Reduced Power Level D2 | 8mm                           | 8mm                      | 5mm                         | 5mm                      | 4mm                          | 4mm                      |
| UMTS Band IV | Reduced Power Level D2 | 8mm                           | 8mm                      | 5mm                         | 5mm                      | 4mm                          | 4mm                      |
| LTE Band 2   | Reduced Power Level D2 | 8mm                           | 8mm                      | 5mm                         | 5mm                      | 4mm                          | 4mm                      |
| LTE Band 4   | Reduced Power Level D2 | 8mm                           | 8mm                      | 5mm                         | 5mm                      | 4mm                          | 4mm                      |
| LTE Band 7   | Reduced Power Level D2 | 8mm                           | 8mm                      | 5mm                         | 5mm                      | 4mm                          | 4mm                      |
|              | Reduced Power Level D3 | 12mm                          | 12mm                     | 8mm                         | 8mm                      | 7mm                          | 7mm                      |
| LTE Band 38  | Reduced Power Level D2 | 8mm                           | 8mm                      | 5mm                         | 5mm                      | 4mm                          | 4mm                      |

Note: 1) \* The sensor Trigger Distance of Reduced Power Level D7 (WIFI hotspot on), Level D2 (Wi-Fi station on) and Level D4 (WIFI hotspot off / WIFI station off, main antenna only) are the same.

2) \* The sensor Trigger Distance of Reduced Power Level D8 (WIFI hotspot on), Level D3 (Wi-Fi station on) and Level D3 (WIFI hotspot off / WIFI station off, main antenna only) are the same.

**Conclusion:** It can be ensured that the proximity sensor can be valid triggered for the body exposure condition in all required frequency bands (UMTS Band II/IV,LTE Band 2/4/7/38 with Main Antenna).

The detailed conducted power measurement data to determine the triggering distances is as below:

Table: Reduced power (Moving toward phantom)

| Band        | Position    | Power Reduction Status (dBm) |       |       |       |       |       |       |       |       |       |       |       |       |
|-------------|-------------|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|             |             | 16                           | 15    | 14    | 13    | 12    | 11    | 10    | 9     | 8     | 7     | 6     | 5     | 4     |
| UMTS Band 2 | bottom side | 24.04                        | 24.04 | 24.04 | 24.04 | 24.04 | 24.04 | 24.04 | 24.04 | 24.04 | 23.58 | 23.58 | 23.58 | 23.58 |
| UMTS Band 4 | bottom side | 22.95                        | 22.95 | 22.95 | 22.95 | 22.95 | 22.95 | 22.95 | 22.95 | 22.95 | 22.57 | 22.57 | 22.57 | 22.57 |
| LTE Band 2  | bottom side | 23.18                        | 23.18 | 23.18 | 23.18 | 23.18 | 23.18 | 23.18 | 23.18 | 23.18 | 22.97 | 22.97 | 22.97 | 22.97 |
| LTE Band 4  | bottom side | 22.63                        | 22.63 | 22.63 | 22.63 | 22.63 | 22.63 | 22.63 | 22.63 | 22.63 | 22.43 | 22.43 | 22.43 | 22.43 |
| LTE Band 7  | bottom side | 23.26                        | 23.26 | 23.26 | 23.26 | 23.26 | 21.69 | 21.69 | 21.69 | 21.69 | 21.1  | 21.1  | 21.1  | 21.1  |
| LTE Band 38 | bottom side | 23.1                         | 23.1  | 23.1  | 23.1  | 23.1  | 23.1  | 23.1  | 23.1  | 23.1  | 21.35 | 21.35 | 21.35 | 21.35 |
| Band        | Position    | Power Reduction Status (dBm) |       |       |       |       |       |       |       |       |       |       |       |       |
|             |             | 11                           | 10    | 9     | 8     | 7     | 6     | 5     | 4     | 3     | 2     | 1     |       |       |
| UMTS Band 2 | back side   | 24.04                        | 24.04 | 24.04 | 24.04 | 24.04 | 24.04 | 24.04 | 23.58 | 23.58 | 23.58 | 23.58 |       |       |
| UMTS Band 4 | back side   | 22.95                        | 22.95 | 22.95 | 22.95 | 22.95 | 22.95 | 22.95 | 22.57 | 22.57 | 22.57 | 22.57 |       |       |
| LTE Band 2  | back side   | 23.18                        | 23.18 | 23.18 | 23.18 | 23.18 | 23.18 | 23.18 | 22.97 | 22.97 | 22.97 | 22.97 |       |       |
| LTE Band 4  | back side   | 22.63                        | 22.63 | 22.63 | 22.63 | 22.63 | 22.63 | 22.63 | 22.43 | 22.43 | 22.43 | 22.43 |       |       |
| LTE Band 7  | back side   | 23.26                        | 23.26 | 23.26 | 23.26 | 21.69 | 21.69 | 21.69 | 21.1  | 21.1  | 21.1  | 21.1  |       |       |
| LTE Band 38 | back side   | 23.1                         | 23.1  | 23.1  | 23.1  | 23.1  | 23.1  | 23.1  | 21.35 | 21.35 | 21.35 | 21.35 |       |       |
| Band        | Position    | Power Reduction Status (dBm) |       |       |       |       |       |       |       |       |       |       |       |       |
|             |             | 11                           | 10    | 9     | 8     | 7     | 6     | 5     | 4     | 3     | 2     | 1     |       |       |
| UMTS Band 2 | front side  | 24.04                        | 24.04 | 24.04 | 24.04 | 24.04 | 24.04 | 24.04 | 23.58 | 23.58 | 23.58 | 23.58 |       |       |
| UMTS Band 4 | front side  | 22.95                        | 22.95 | 22.95 | 22.95 | 22.95 | 22.95 | 22.95 | 22.57 | 22.57 | 22.57 | 22.57 |       |       |
| LTE Band 2  | front side  | 23.18                        | 23.18 | 23.18 | 23.18 | 23.18 | 23.18 | 23.18 | 22.97 | 22.97 | 22.97 | 22.97 |       |       |
| LTE Band 4  | front side  | 22.63                        | 22.63 | 22.63 | 22.63 | 22.63 | 22.63 | 22.63 | 22.43 | 22.43 | 22.43 | 22.43 |       |       |
| LTE Band 7  | front side  | 23.26                        | 23.26 | 23.26 | 23.26 | 23.26 | 21.69 | 21.69 | 21.69 | 21.1  | 21.1  | 21.1  |       |       |
| LTE Band 38 | front side  | 23.1                         | 23.1  | 23.1  | 23.1  | 23.1  | 23.1  | 23.1  | 21.35 | 21.35 | 21.35 | 21.35 |       |       |

Table: Full power (Moving away from phantom)

| Band        | Position    | Power Reduction Status (dBm) |       |       |       |       |       |       |       |       |       |       |       |       |  |
|-------------|-------------|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
|             |             | 4                            | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12    | 13    | 14    | 15    | 16    |  |
| UMTS Band 2 | bottom side | 23.58                        | 23.58 | 23.58 | 23.58 | 23.58 | 24.04 | 24.04 | 24.04 | 24.04 | 24.04 | 24.04 | 24.04 | 24.04 |  |
| UMTS Band 4 | bottom side | 22.57                        | 22.57 | 22.57 | 22.57 | 22.57 | 22.95 | 22.95 | 22.95 | 22.95 | 22.95 | 22.95 | 22.95 | 22.95 |  |
| LTE Band 2  | bottom side | 22.97                        | 22.97 | 22.97 | 22.97 | 22.97 | 23.18 | 23.18 | 23.18 | 23.18 | 23.18 | 23.18 | 23.18 | 23.18 |  |
| LTE Band 4  | bottom side | 22.43                        | 22.43 | 22.43 | 22.43 | 22.43 | 22.63 | 22.63 | 22.63 | 22.63 | 22.63 | 22.63 | 22.63 | 22.63 |  |
| LTE Band 7  | bottom side | 21.1                         | 21.1  | 21.1  | 21.1  | 21.1  | 21.69 | 21.69 | 21.69 | 21.69 | 23.26 | 23.26 | 23.26 | 23.26 |  |
| LTE Band 38 | bottom side | 21.35                        | 21.35 | 21.35 | 21.35 | 21.35 | 23.1  | 23.1  | 23.1  | 23.1  | 23.1  | 23.1  | 23.1  | 23.1  |  |
| Band        | Position    | Power Reduction Status (dBm) |       |       |       |       |       |       |       |       |       |       |       |       |  |
|             |             | 1                            | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    |       |       |  |
| UMTS Band 2 | back side   | 23.58                        | 23.58 | 23.58 | 23.58 | 23.58 | 24.04 | 24.04 | 24.04 | 24.04 | 24.04 | 24.04 |       |       |  |
| UMTS Band 4 | back side   | 22.57                        | 22.57 | 22.57 | 22.57 | 22.57 | 22.95 | 22.95 | 22.95 | 22.95 | 22.95 | 22.95 |       |       |  |

| LTE Band 2  | back side  | 22.97                        | 22.97 | 22.97 | 22.97 | 22.97 | 23.18 | 23.18 | 23.18 | 23.18 | 23.18 | 23.18 |
|-------------|------------|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| LTE Band 4  | back side  | 22.43                        | 22.43 | 22.43 | 22.43 | 22.43 | 22.63 | 22.63 | 22.63 | 22.63 | 22.63 | 22.63 |
| LTE Band 7  | back side  | 21.1                         | 21.1  | 21.1  | 21.1  | 21.1  | 21.69 | 21.69 | 21.69 | 23.26 | 23.26 | 23.26 |
| LTE Band 38 | back side  | 21.35                        | 21.35 | 21.35 | 21.35 | 21.35 | 23.1  | 23.1  | 23.1  | 23.1  | 23.1  | 23.1  |
| Band        | Position   | Power Reduction Status (dBm) |       |       |       |       |       |       |       |       |       |       |
|             |            | 1                            | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    |
| UMTS Band 2 | front side | 23.58                        | 23.58 | 23.58 | 23.58 | 23.58 | 24.04 | 24.04 | 24.04 | 24.04 | 24.04 | 24.04 |
| UMTS Band 4 | front side | 22.57                        | 22.57 | 22.57 | 22.57 | 22.57 | 22.95 | 22.95 | 22.95 | 22.95 | 22.95 | 22.95 |
| LTE Band 2  | front side | 22.97                        | 22.97 | 22.97 | 22.97 | 22.97 | 23.18 | 23.18 | 23.18 | 23.18 | 23.18 | 23.18 |
| LTE Band 4  | front side | 22.43                        | 22.43 | 22.43 | 22.43 | 22.43 | 22.63 | 22.63 | 22.63 | 22.63 | 22.63 | 22.63 |
| LTE Band 7  | front side | 21.1                         | 21.1  | 21.1  | 21.1  | 21.69 | 21.69 | 21.69 | 23.26 | 23.26 | 23.26 | 23.26 |
| LTE Band 38 | front side | 21.35                        | 21.35 | 21.35 | 21.35 | 21.35 | 23.1  | 23.1  | 23.1  | 23.1  | 23.1  | 23.1  |

## 2) Procedures for determining antenna and proximity sensor coverage

According to the antenna and sensors location figure: Proximity sensor pad does not fully cover the 2G/3G/4G main antenna. So the proximity sensor coverage need to be assessed for the frequency bands and test positions supporting proximity sensor power reduction per KDB 616217:

a) All the sides/edges (bottom side, front side and back side of the device) is positioned at a test separation distance less than or equal to the distance required for sensor triggering, with both the antenna and sensor pad located at least 20 mm laterally outside the edge (boundary) of the phantom, along the direction of maximum antenna and sensor offset.

Each applicable edge should be positioned perpendicularly to the phantom to determine sensor coverage. For antennas and/or sensors located near the corner of a tablet, both adjacent edges must be considered.

b) The similar sequence of steps applied to determine sensor triggering distance are used to verify the sensor coverage by moving the DUT(sensor and antenna) horizontally toward the phantom while maintaining the same vertical separation between the side or edge and the phantom.

c) After the exact location where triggering of power reduction is determined, with respect to the sensor and antenna, the DUT movement should be continued, in 3 mm increments, until both the sensor and antenna(s) are fully under the phantom and at least 20 mm inside the phantom edge.

d) The process is then repeated from the opposite direction, starting at the other end of the maximum antenna and sensor offset, by rotating the DUT 180 along the vertical axis.

e) The triggering points should be documented graphically, with the antenna and sensor clearly identified, along with all relevant dimensions.

f) If the subsequently measured peak SAR location for the antenna is not between the triggering points, established by the sensor coverage tests from opposite ends of the antenna and sensor, additional SAR tests may be required for conditions where only part of the surface or edge of the DUT corresponding to the antenna is in proximity to the user and the sensor may not be triggering as desired. The proximity sensor coverage measurement method are as below.

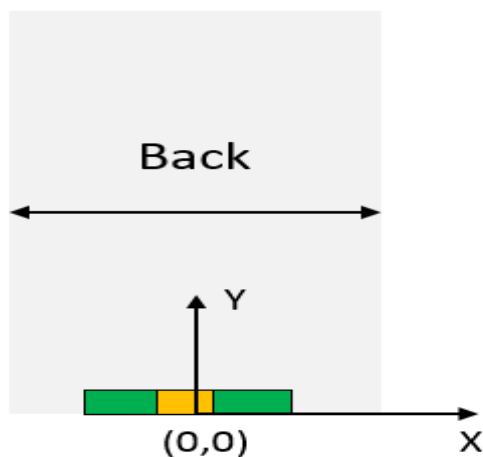


Figure: Plane coordinate system definition on the DUT

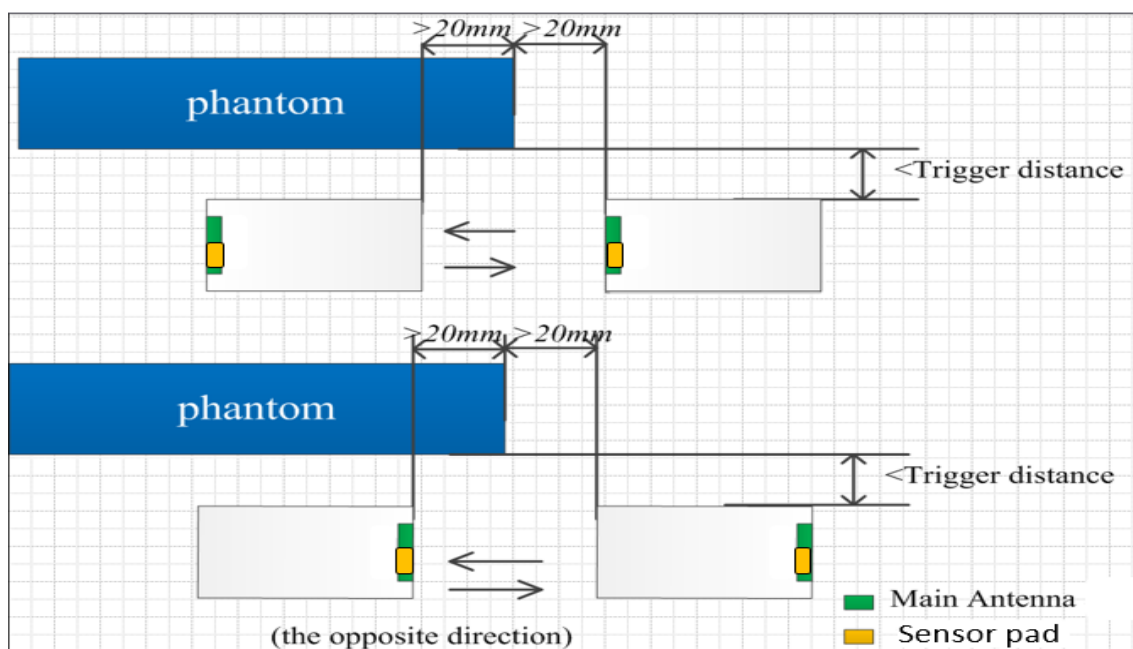


Figure: proximity sensor coverage assesment (Y coordinate direction)



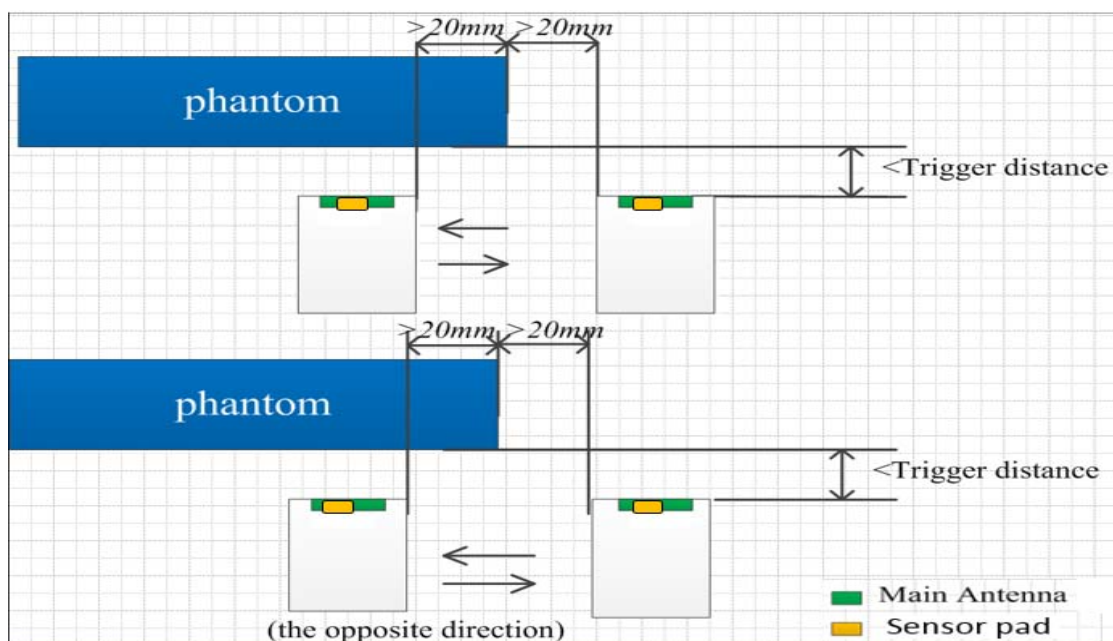
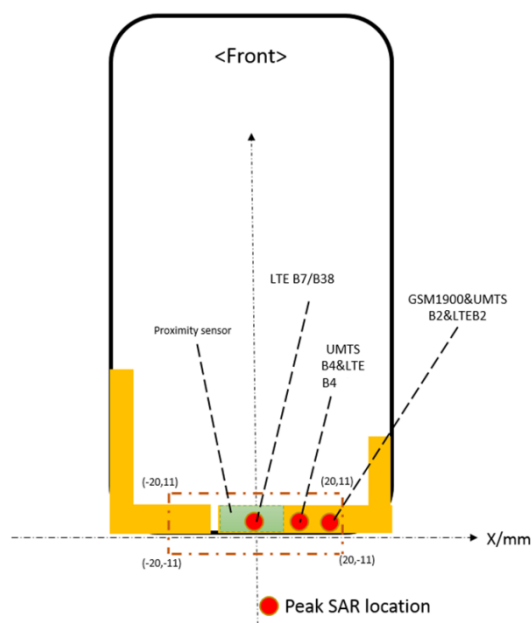
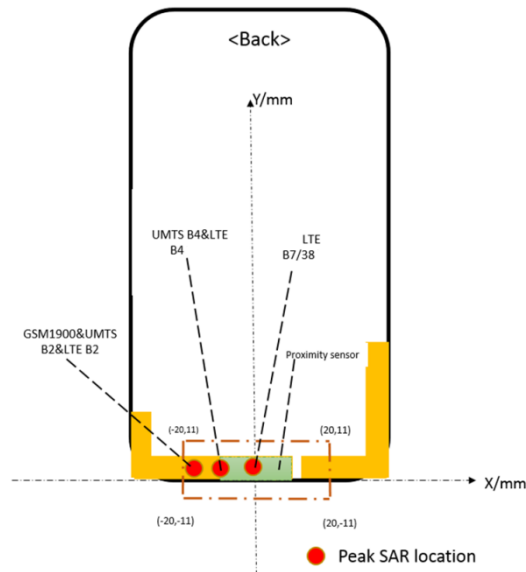


Figure: proximity sensor coverage assesment (X coordinate direction)

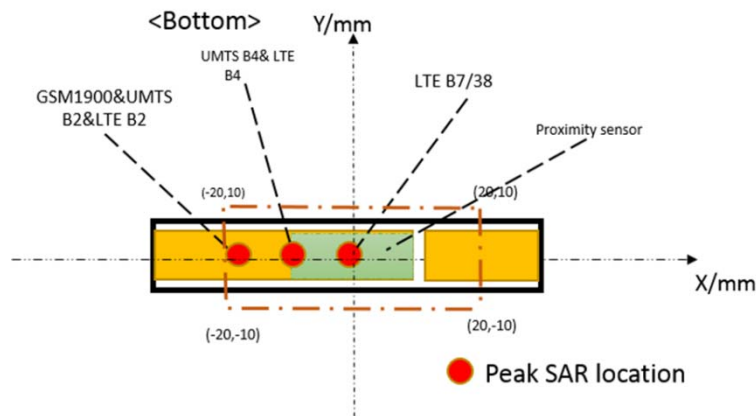
sensor coverage assesment results(Front side):



sensor coverage assesment results(Back side):



sensor coverage assesment results(Bottom side):



Conclusion: As the subsequently measured peak SAR location for the antenna is between the triggering points, additional SAR tests are not required for proximity sensor coverage per KDB 616217.

### 3) Procedures for determining device tilt angle influences to proximity sensor triggering

The DUT was positioned directly below the flat phantom with/without protective cover at the minimum measured trigger distance with Bottom side parallel to the base of the flat phantom with/without protective cover for each band.

The DUT was rotated about Bottom side for angles up to  $\pm 45^\circ$ . If the output power increased during the rotation the DUT was moved 1mm toward the phantom and the rotation repeated. This procedure was repeated until the power remained reduced for all angles up to  $\pm 45^\circ$ .

The proximity sensor triggering tilt angle measurement method are as below:

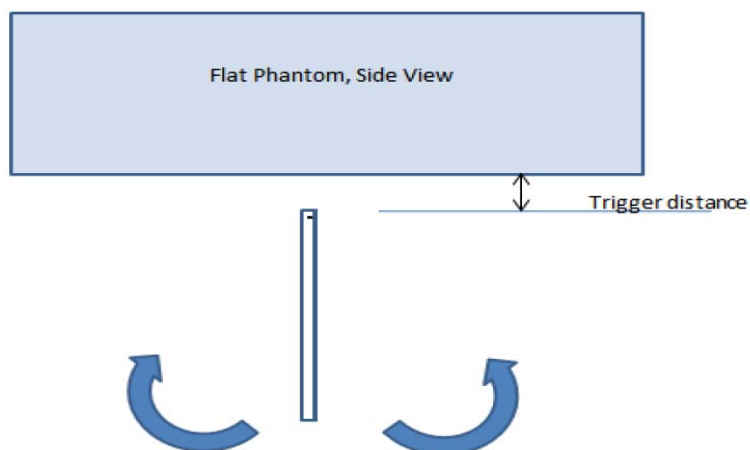


**Table: Summary of Device Tilt Angle Influence to Proximity Sensor Triggering (Bottom side)**

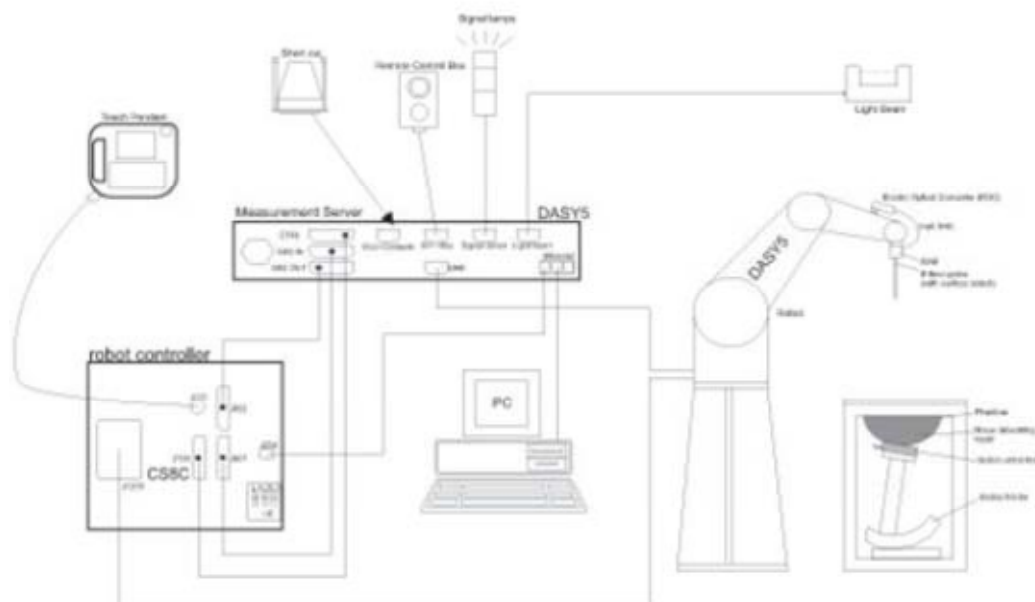
| Band(MHz)    | Minimum trigger distance at reduction was maintained over±45° | Power Reduction Status |      |      |      |     |    |    |     |     |     |     |  |
|--------------|---------------------------------------------------------------|------------------------|------|------|------|-----|----|----|-----|-----|-----|-----|--|
|              |                                                               | -45°                   | -35° | -25° | -15° | -5° | 0° | 5° | 15° | 25° | 35° | 45° |  |
| UMTS Band II | 8mm                                                           | on                     | on   | on   | on   | on  | on | on | on  | on  | on  | on  |  |
| UMTS Band IV | 8mm                                                           | on                     | on   | on   | on   | on  | on | on | on  | on  | on  | on  |  |
| LTE Band 2   | 8mm                                                           | on                     | on   | on   | on   | on  | on | on | on  | on  | on  | on  |  |
| LTE Band 4   | 8mm                                                           | on                     | on   | on   | on   | on  | on | on | on  | on  | on  | on  |  |
| LTE Band 7   | 8mm/12mm                                                      | on                     | on   | on   | on   | on  | on | on | on  | on  | on  | on  |  |
| LTE Band 38  | 8mm                                                           | on                     | on   | on   | on   | on  | on | on | on  | on  | on  | on  |  |

**Conclusion:** It can be ensured that the proximity sensor can be valid triggered for the DUT tilt coverage exposure condition.

## 6 SAR Measurements System Configuration

### 6.1 SAR Measurement Set-up

The DASY system for performing compliance tests consists of the following items:



- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic Field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running WinXP or Win7 and the DASY software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

## 6.2 DASY5 E-field Probe System

The SAR measurements were conducted with the dosimetric probe EX3DV4(manufactured by SPEAG), designed in the classical triangular configuration and optimized for dosimetric evaluation.

### EX3DV4 Probe Specification

|               |                                                                                                                                                                                                            |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Construction  | Symmetrical design with triangular core<br>Built-in shielding against static charges<br>PEEK enclosure material (resistant to organic solvents, e.g., DGBE)                                                |
| Calibration   | ISO/IEC 17025 calibration<br>service available                                                                                                                                                             |
| Frequency     | 10 MHz to > 6 GHz<br>Linearity: $\pm 0.2$ dB<br>(30 MHz to 6 GHz)                                                                                                                                          |
| Directivity   | $\pm 0.3$ dB in HSL (rotation around probe axis) $\pm 0.5$ dB in tissue material (rotation normal to probe axis)                                                                                           |
| Dynamic Range | 10 $\mu$ W/g to > 100 mW/g Linearity: $\pm 0.2$ dB (noise: typically < 1 $\mu$ W/g)                                                                                                                        |
| Dimensions    | Overall length: 330 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm)<br>Typical distance from probe tip to dipole centers: 1 mm                                                                          |
| Application   | High precision dosimetric measurements in any exposure Scenario (e.g., very strong gradient fields). Only probe which enables compliance testing for frequencies up to 6 GHz with precision of better 30%. |



### E-field Probe Calibration

Each probe is calibrated according to a dosimetric assessment procedure with accuracy better than  $\pm 10\%$ . The spherical isotropy was evaluated and found to be better than  $\pm 0.25$ dB. The sensitivity parameters (NormX, NormY, NormZ), the diode compression parameter (DCP) and the conversion factor (ConvF) of the probe are tested.

The free space E-field from amplified probe outputs is determined in a test chamber. This is performed in a TEM cell for frequencies bellow 1 GHz, and in a wave guide above 1 GHz for free space. For the free space calibration, the probe is placed in the volumetric center of the cavity and at the proper orientation with the field. The probe is then rotated 360 degrees.

E-field temperature correlation calibration is performed in a flat phantom filled with the appropriate simulated brain tissue. The measured free space E-field in the medium correlates to temperature rise in a dielectric medium. For temperature correlation calibration a RF transparent thermistor-based temperature probe is used in conjunction with the E-field probe.

$$\text{SAR} = C \Delta T / \Delta t$$

Where:  $\Delta t$  = Exposure time (30 seconds),  
 $C$  = Heat capacity of tissue (brain or muscle),  
 $\Delta T$  = Temperature increase due to RF exposure.

Or

$$\text{SAR} = |E|^2 \sigma / \rho$$

Where:  $\sigma$  = Simulated tissue conductivity,  
 $\rho$  = Tissue density ( $\text{kg/m}^3$ ).

## 6.3 SAR Measurement Procedure

### Power Reference Measurement

The Power Reference Measurement and Power Drift Measurements are for monitoring the power drift of the device under test in the batch process. The minimum distance of probe sensors to surface determines the closest measurement point to phantom surface. This distance cannot be smaller than the distance of sensor calibration points to probe tip as defined in the probe properties.

### Area Scan

The area scan is used as a fast scan in two dimensions to find the area of high field values, before doing a fine measurement around the hot spot. The sophisticated interpolation routines implemented in DASY software can find the maximum found in the scanned area, within a range of the global maximum. The range (in dB) is specified in the standards for compliance testing. For example, a 2 dB range is required in IEEE standard 1528 and IEC 62209 standards, whereby 3 dB is a requirement when compliance is assessed in accordance with the ARIB standard (Japan), if only one zoom scan follows the area scan, then only the absolute maximum will be taken as reference. For cases where multiple maximums are detected, the number of zoom scans has to be increased accordingly.

Area scan parameters extracted from FCC KDB 865664 D01 SAR measurement 100 MHz to 6 GHz.

|                                                                                                        | ≤3 GHz                                                                                                                                                                                                                                                            | > 3 GHz                                                    |
|--------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface | 5 ± 1 mm                                                                                                                                                                                                                                                          | $\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5 \text{ mm}$ |
| Maximum probe angle from probe axis to phantom surface normal at the measurement location              | 30° ± 1°                                                                                                                                                                                                                                                          | 20° ± 1°                                                   |
| Maximum area scan spatial resolution:<br>$\Delta x_{\text{Area}}, \Delta y_{\text{Area}}$              | ≤ 2 GHz: ≤ 15 mm<br>2 – 3 GHz: ≤ 12 mm                                                                                                                                                                                                                            | 3 – 4 GHz: ≤ 12 mm<br>4 – 6 GHz: ≤ 10 mm                   |
|                                                                                                        | When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device. |                                                            |

## Zoom Scan

Zoom scans are used to assess the peak spatial SAR values within a cubic averaging volume containing 1 gram and 10 gram of simulated tissue. The zoom scan measures points (refer to table below) within a cube whose base faces are centered on the maxima found in a preceding area scan job within the same procedure. When the measurement is done, the zoom scan evaluates the averaged SAR for 1 gram and 10 gram and displays these values next to the job's label.

Zoom scan parameters extracted from FCC KDB 865664 D01 SAR measurement 100 MHz to 6 GHz.

|                                                                                                                                                                                                                                                                            |                                           |                                                                                             | ≤3GHz                               | > 3 GHz                                               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------------------------|
| Maximum zoom scan spatial resolution: $\Delta x_{\text{zoom}} \Delta y_{\text{zoom}}$                                                                                                                                                                                      |                                           |                                                                                             | ≤2GHz: ≤8mm<br>2 – 3GHz: ≤5mm*      | 3 – 4GHz: ≤5mm*<br>4 – 6GHz: ≤4mm*                    |
| Maximum zoom scan spatial resolution, normal to phantom surface                                                                                                                                                                                                            | Uniform grid: $\Delta z_{\text{zoom}}(n)$ |                                                                                             | ≤5mm                                | 3 – 4GHz: ≤4mm<br>4 – 5GHz: ≤3mm<br>5 – 6GHz: ≤2mm    |
|                                                                                                                                                                                                                                                                            | Graded grid                               | $\Delta z_{\text{zoom}}(1)$ : between 1 <sup>st</sup> two points closest to phantom surface | ≤4mm                                | 3 – 4GHz: ≤3mm<br>4 – 5GHz: ≤2.5mm<br>5 – 6GHz: ≤2mm  |
|                                                                                                                                                                                                                                                                            |                                           | $\Delta z_{\text{zoom}}(n>1)$ : between subsequent points                                   | ≤1.5• $\Delta z_{\text{zoom}}(n-1)$ |                                                       |
| Minimum zoom scan volume                                                                                                                                                                                                                                                   | X, y, z                                   |                                                                                             | ≥30mm                               | 3 – 4GHz: ≥28mm<br>4 – 5GHz: ≥25mm<br>5 – 6GHz: ≥22mm |
| Note: $\delta$ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.                                                                                                                          |                                           |                                                                                             |                                     |                                                       |
| * When zoom scan is required and the <u>reported</u> SAR from the <i>area scan based 1-g SAR estimation</i> procedures of KDB 447498 is ≤ 1.4W/kg, ≤8mm, ≤7mm and ≤5mm zoom scan resolution may be applied, respectively, for 2GHz to 3GHz, 3GHz to 4GHz and 4GHz to 6GHz. |                                           |                                                                                             |                                     |                                                       |

## Volume Scan Procedures

The volume scan is used to assess overlapping SAR distributions for antennas transmitting in different frequency bands. It is equivalent to an oversized zoom scan used in standalone measurements. The measurement volume will be used to enclose all the simultaneous transmitting antennas. For antennas transmitting simultaneously in different frequency bands, the volume scan is measured separately in each frequency band. In order to sum correctly to compute the 1g aggregate SAR, the EUT remain in the same test position for all measurements and all volume scan use the same spatial resolution and grid spacing. When all volume scan were completed, the software, SEMCAD postprocessor can combine and subsequently superpose these measurement data to calculating the multiband SAR.

## Power Drift Monitoring

All SAR testing is under the EUT install full charged battery and transmit maximum output power. In DASY measurement software, the power reference measurement and power drift measurement procedures are used for monitoring the power drift of EUT during SAR test. Both these procedures measure the field at a specified reference position before and after the SAR testing. The software will calculate the field difference in dB. If the power drifts more than 5%, the SAR will be retested.



## 7 Main Test Equipment

| Name of Equipment                   | Manufacturer    | Type/Model | Serial Number | Last Cal.  | Cal. Due Date |
|-------------------------------------|-----------------|------------|---------------|------------|---------------|
| Network analyzer                    | Agilent         | E5071B     | MY42404014    | 2018-05-20 | 2019-05-19    |
| Dielectric Probe Kit                | HP              | 85070E     | US44020115    | 2018-05-20 | 2019-05-19    |
| Power meter                         | Agilent         | E4417A     | GB41291714    | 2018-05-21 | 2019-05-20    |
| Power sensor                        | Agilent         | N8481H     | MY50350004    | 2018-05-21 | 2019-05-20    |
| Power sensor                        | Agilent         | E9327A     | US40441622    | 2018-05-20 | 2019-05-19    |
| Dual directional coupler            | Agilent         | 778D-012   | 50519         | 2018-05-21 | 2019-05-20    |
| Dual directional coupler            | Agilent         | 777D       | 50146         | 2018-05-20 | 2019-05-19    |
| Amplifier                           | INDEXSAR        | IXA-020    | 0401          | 2018-05-20 | 2019-05-19    |
| Wideband radio communication tester | R&S             | CMW 500    | 113645        | 2018-05-20 | 2019-05-19    |
| Wideband radio communication tester | R&S             | CMW 500    | 150415        | 2018-05-20 | 2019-05-19    |
| BT Base Station Simulator           | R&S             | CBT        | 100271        | 2018-05-14 | 2019-05-13    |
| E-field Probe                       | SPEAG           | EX3DV4     | 3677          | 2018-05-29 | 2019-05-28    |
| DAE                                 | SPEAG           | DAE4       | 1291          | 2018-12-04 | 2019-12-03    |
| Validation Kit 750MHz               | SPEAG           | D750V3     | 1045          | 2017-08-27 | 2020-08-26    |
| Validation Kit 835MHz               | SPEAG           | D835V2     | 4d020         | 2017-08-28 | 2020-08-27    |
| Validation Kit 1750MHz              | SPEAG           | D1750V2    | 1033          | 2017-01-10 | 2020-01-09    |
| Validation Kit 1900MHz              | SPEAG           | D1900V2    | 5d060         | 2017-08-26 | 2020-08-25    |
| Validation Kit 2450MHz              | SPEAG           | D2450V2    | 786           | 2017-08-29 | 2020-08-28    |
| Validation Kit 2600MHz              | SPEAG           | D2600V2    | 1025          | 2018-05-02 | 2021-05-01    |
| Validation Kit 5GHz                 | SPEAG           | D5GHzV2    | 1151          | 2017-01-05 | 2020-01-04    |
| Temperature Probe                   | Tianjin jinming | JM222      | AA1009129     | 2018-05-17 | 2019-05-16    |
| Hygrothermograph                    | Anymetr         | NT-311     | 20150731      | 2018-05-17 | 2019-05-16    |
| Software for Test                   | Speag           | DASY5      | 52.8.8.1222   | /          | /             |
| Softwarefor Tissue                  | Agilent         | 85070      | E06.01.36     | /          | /             |

## 8 Tissue Dielectric Parameter Measurements & System Verification

### 8.1 Tissue Verification

The temperature of the tissue-equivalent medium used during measurement must also be within 18°C to 25°C and within  $\pm 2^\circ\text{C}$  of the temperature when the tissue parameters are characterized. The dielectric parameters must be measured before the tissue-equivalent medium is used in a series of SAR measurements. The parameters should be re-measured after each 3 – 4 days of use; or earlier if the dielectric parameters can become out of tolerance.

#### Target values

| Frequency (MHz) |      | Water (%) | Salt (%)                       | Sugar (%) | Glycol (%) | Preventol (%) | Cellulose (%) | $\epsilon_r$ | $\sigma(\text{s/m})$ |
|-----------------|------|-----------|--------------------------------|-----------|------------|---------------|---------------|--------------|----------------------|
| Head            | 750  | 41.448    | 1.452                          | 56        | 0          | 0.1           | 1.0           | 41.9         | 0.89                 |
|                 | 835  | 41.45     | 1.45                           | 56        | 0          | 0.1           | 1.0           | 41.5         | 0.90                 |
|                 | 1750 | 55.24     | 0.31                           | 0         | 44.45      | 0             | 0             | 40.1         | 1.37                 |
|                 | 1900 | 55.242    | 0.306                          | 0         | 44.452     | 0             | 0             | 40.0         | 1.40                 |
|                 | 2450 | 62.7      | 0.5                            | 0         | 36.8       | 0             | 0             | 39.2         | 1.80                 |
|                 | 2600 | 55.242    | 0.306                          | 0         | 44.452     | 0             | 0             | 39.0         | 1.96                 |
| Body            | 750  | 52.49     | 1.41                           | 45        | 0          | 0.1           | 1.0           | 55.5         | 0.96                 |
|                 | 835  | 52.5      | 1.4                            | 45        | 0          | 0.1           | 1.0           | 55.2         | 0.97                 |
|                 | 1750 | 69.91     | 0.12                           | 0         | 29.97      | 0             | 0             | 53.4         | 1.49                 |
|                 | 1900 | 69.91     | 0.13                           | 0         | 29.96      | 0             | 0             | 53.3         | 1.52                 |
|                 | 2450 | 73.2      | 0.1                            | 0         | 26.7       | 0             | 0             | 52.7         | 1.95                 |
|                 | 2600 | 72.6      | 0.1                            | 0         | 27.3       | 0             | 0             | 52.5         | 2.16                 |
| Frequency (MHz) |      | Water (%) | Diethylenglycol monohexylether |           |            | Triton X-100  |               | $\epsilon_r$ | $\sigma(\text{s/m})$ |
| Head            | 5250 | 65.53     | 17.24                          |           |            | 17.23         |               | 35.9         | 4.71                 |
|                 | 5600 | 65.53     | 17.24                          |           |            | 17.23         |               | 35.5         | 5.07                 |
|                 | 5750 | 65.53     | 17.24                          |           |            | 17.23         |               | 35.4         | 5.22                 |
| Body            | 5250 | 72.52     | 13.74                          |           |            | 13.74         |               | 48.9         | 5.36                 |
|                 | 5600 | 72.52     | 13.74                          |           |            | 13.74         |               | 48.5         | 5.77                 |
|                 | 5750 | 72.52     | 13.74                          |           |            | 13.74         |               | 48.3         | 5.94                 |

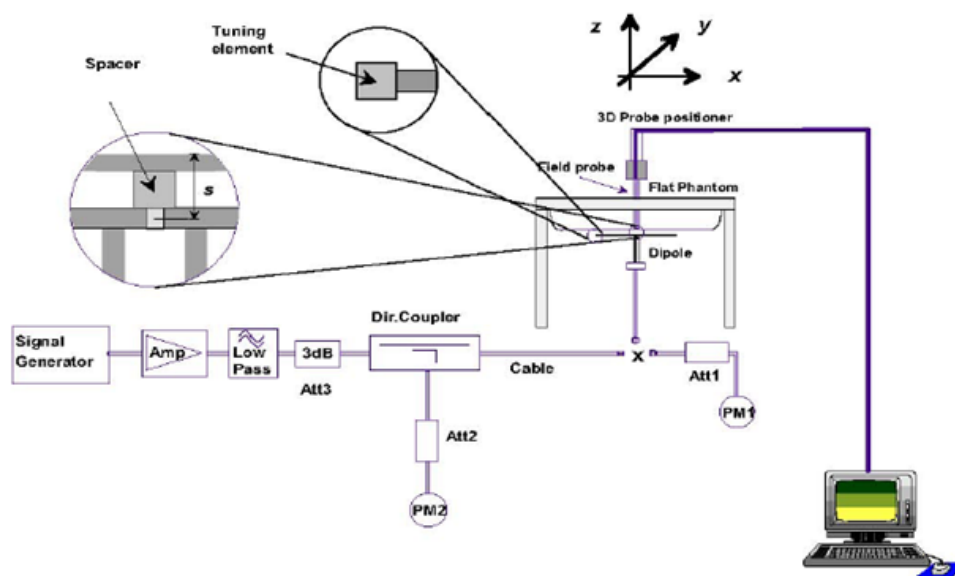
**Measurements results**

| Frequency (MHz)                                                                                                                                                  |      | Test Date | Temp °C | Measured Dielectric Parameters |                | Target Dielectric Parameters |                | Limit (Within ±5%)   |                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|---------|--------------------------------|----------------|------------------------------|----------------|----------------------|------------------|
|                                                                                                                                                                  |      |           |         | $\epsilon_r$                   | $\sigma$ (s/m) | $\epsilon_r$                 | $\sigma$ (s/m) | Dev $\epsilon_r$ (%) | Dev $\sigma$ (%) |
| 750                                                                                                                                                              | Head | 2019/5/5  | 21.5    | 41.8                           | 0.89           | 41.9                         | 0.89           | -0.24                | 0.00             |
|                                                                                                                                                                  | Body | 2019/5/5  | 21.5    | 55.7                           | 0.96           | 55.5                         | 0.96           | 0.36                 | 0.00             |
| 835                                                                                                                                                              | Head | 2019/5/5  | 21.5    | 41.4                           | 0.92           | 41.5                         | 0.90           | -0.24                | 2.22             |
|                                                                                                                                                                  | Body | 2019/5/5  | 21.5    | 54.5                           | 0.98           | 55.2                         | 0.97           | -1.27                | 1.03             |
| 1750                                                                                                                                                             | Head | 2019/5/6  | 21.5    | 40.0                           | 1.33           | 40.1                         | 1.37           | -0.25                | -2.92            |
|                                                                                                                                                                  | Body | 2019/5/5  | 21.5    | 53.1                           | 1.50           | 53.4                         | 1.49           | -0.56                | 0.67             |
| 1900                                                                                                                                                             | Head | 2019/5/3  | 21.5    | 40.1                           | 1.41           | 40.0                         | 1.40           | 0.25                 | 0.71             |
|                                                                                                                                                                  | Body | 2019/5/4  | 21.5    | 53.3                           | 1.51           | 53.3                         | 1.52           | 0.00                 | -0.66            |
| 2450                                                                                                                                                             | Head | 2019/5/7  | 21.5    | 38.7                           | 1.81           | 39.2                         | 1.80           | -1.28                | 0.56             |
|                                                                                                                                                                  | Body | 2019/5/6  | 21.5    | 52.9                           | 1.94           | 52.7                         | 1.95           | 0.38                 | -0.51            |
| 2600                                                                                                                                                             | Head | 2019/5/6  | 21.5    | 38.2                           | 2.01           | 39.0                         | 1.96           | -2.05                | 2.55             |
|                                                                                                                                                                  | Body | 2019/5/6  | 21.5    | 51.8                           | 2.20           | 52.5                         | 2.16           | -1.33                | 1.85             |
| 5250                                                                                                                                                             | Head | 2019/5/7  | 21.5    | 35.7                           | 4.74           | 35.9                         | 4.71           | -0.56                | 0.64             |
|                                                                                                                                                                  | Body | 2019/5/7  | 21.5    | 48.1                           | 5.32           | 48.9                         | 5.36           | -1.64                | -0.75            |
| 5600                                                                                                                                                             | Head | 2019/5/7  | 21.5    | 34.4                           | 5.17           | 35.5                         | 5.07           | -3.10                | 1.97             |
|                                                                                                                                                                  | Body | 2019/5/7  | 21.5    | 47.8                           | 5.88           | 48.5                         | 5.77           | -1.44                | 1.91             |
| 5750                                                                                                                                                             | Head | 2019/5/7  | 21.5    | 35                             | 5.28           | 35.4                         | 5.22           | -1.13                | 1.15             |
|                                                                                                                                                                  | Body | 2019/5/7  | 21.5    | 47.9                           | 6.10           | 48.3                         | 5.94           | -0.83                | 2.69             |
| Note: The depth of tissue-equivalent liquid in a phantom must be $\geq 15.0$ cm for SAR measurements $\leq 3$ GHz and $\geq 10.0$ cm for measurements $> 3$ GHz. |      |           |         |                                |                |                              |                |                      |                  |

## 8.2 System Performance Check

The manufacturer calibrates the probes annually. Dielectric parameters of the tissue simulates were measured using the dielectric probe kit and the network analyzer. A system check measurement for every day was made following the determination of the dielectric parameters of the Tissue simulates, using the dipole validation kit. The dipole antenna was placed under the flat section of the twin SAM phantom.

System check is performed regularly on all frequency bands where tests are performed with the DASY system.



Picture 1 System Performance Check setup



Picture 2 Setup Photo

### Justification for Extended SAR Dipole Calibrations

Usage of SAR dipoles calibrated less than 3 years ago but more than 1 year ago were confirmed in maintaining return loss ( $< -20$  dB, within 20% of prior calibration) and impedance (within 5 ohm from prior calibration) requirements per extended calibrations in KDB 865664 D01:

| Dipole                                     |                | Date of Measurement | Return Loss(dB) | $\Delta$ % | Impedance ( $\Omega$ ) | $\Delta\Omega$ |
|--------------------------------------------|----------------|---------------------|-----------------|------------|------------------------|----------------|
| Dipole<br>D750V3<br>SN: 1045               | Head<br>Liquid | 8/27/2017           | -28.5           | /          | 52.5                   | /              |
|                                            |                | 8/26/2018           | -27.6           | 3.36       | 53.2                   | 0.7            |
|                                            | Body<br>Liquid | 8/27/2017           | -24.2           | /          | 47.5                   | /              |
|                                            |                | 8/26/2018           | -24.0           | 0.83       | 45.6                   | 1.9            |
| Dipole<br>D835V2<br>SN: 4d020              | Head<br>Liquid | 8/28/2017           | -31.9           | /          | 50.3                   | /              |
|                                            |                | 8/27/2018           | -29.0           | 9.09       | 46.6                   | -3.7           |
|                                            | Body<br>Liquid | 8/28/2017           | -24.8           | /          | 46.8                   | /              |
|                                            |                | 8/27/2018           | -27.4           | -10.48     | 48.1                   | 1.3            |
| Dipole<br>D1750V2<br>SN: 1033              | Head<br>Liquid | 1/10/2017           | -40.3           | /          | 49.8                   | /              |
|                                            |                | 1/9/2018            | -40.0           | 0.74       | 49.9                   | 0.1            |
|                                            |                | 1/8/2019            | -40.2           | -0.50      | 49.6                   | 0.3            |
|                                            | Body<br>Liquid | 1/10/2017           | -35.0           | /          | 44.7                   | /              |
|                                            |                | 1/9/2018            | -34.7           | 0.86       | 44.9                   | -0.2           |
|                                            |                | 1/8/2019            | -35.2           | -1.44      | 44.6                   | 0.3            |
| Dipole<br>D1900V2<br>SN: 5d060             | Head<br>Liquid | 8/26/2017           | -23.4           | /          | 52.0                   | /              |
|                                            |                | 8/25/2018           | -24.7           | -5.56      | 54.4                   | 2.4            |
|                                            | Body<br>Liquid | 8/26/2017           | -21.4           | /          | 52.7                   | /              |
|                                            |                | 8/25/2018           | -24.6           | -14.95     | 55.6                   | 2.9            |
| Dipole<br>D2450V2<br>SN: 786               | Head<br>Liquid | 8/29/2017           | -25.5           | /          | 53.4                   | /              |
|                                            |                | 8/28/2018           | -23.0           | 9.80       | 57.2                   | 3.8            |
|                                            | Body<br>Liquid | 8/29/2017           | -23.6           | /          | 51.0                   | /              |
|                                            |                | 8/28/2018           | -23.7           | -0.42      | 55.2                   | 4.2            |
| Dipole<br>D5GHzV2<br>SN: 1151<br>(5250MHz) | Head<br>Liquid | 1/5/2017            | -24.5           | /          | 48.4                   | /              |
|                                            |                | 1/4/2018            | -23.8           | 2.86       | 50.0                   | 1.6            |
|                                            |                | 1/3/2019            | -24.3           | -2.10      | 49.3                   | 0.7            |
|                                            | Body<br>Liquid | 1/5/2017            | -24.7           | /          | 50.4                   | /              |
|                                            |                | 1/4/2018            | -23.8           | 3.64       | 50.0                   | 0.4            |
|                                            |                | 1/3/2019            | -23.4           | 1.68       | 50.4                   | -0.4           |
| Dipole<br>D5GHzV2<br>SN: 1151<br>(5600MHz) | Head<br>Liquid | 1/5/2017            | -22.8           | /          | 55.5                   | /              |
|                                            |                | 1/4/2018            | -21.5           | 5.70       | 55.6                   | 0.1            |
|                                            |                | 1/3/2019            | -21.8           | -1.40      | 55.3                   | 0.3            |
|                                            | Body<br>Liquid | 1/5/2017            | -23.3           | /          | 57.2                   | /              |
|                                            |                | 1/4/2018            | -22.5           | 3.43       | 55.6                   | 1.6            |
|                                            |                | 1/3/2019            | -22.8           | -1.33      | 56.4                   | -0.8           |
| Dipole<br>D5GHzV2<br>SN: 1151<br>(5750MHz) | Head<br>Liquid | 1/5/2017            | -26.5           | /          | 52.4                   | /              |
|                                            |                | 1/4/2018            | -26.8           | -1.13      | 52.5                   | 0.1            |
|                                            |                | 1/3/2019            | -26.9           | -0.37      | 52.1                   | 0.4            |
|                                            | Body<br>Liquid | 1/5/2017            | -24.9           | /          | 56.0                   | /              |
|                                            |                | 1/4/2018            | -25.2           | -1.20      | 56.4                   | -0.4           |
|                                            |                | 1/3/2019            | -25.7           | -1.98      | 56.7                   | -0.3           |

**System Check results**

| Frequency (MHz)                                                                               |      | Test Date | Temp °C | 250mW /100mW Measured SAR <sub>1g</sub> (W/kg) | 1W Normalized SAR <sub>1g</sub> (W/kg) | 1W Target SAR <sub>1g</sub> (W/kg) | Δ % (Limit ± 10%) | Plot No. |
|-----------------------------------------------------------------------------------------------|------|-----------|---------|------------------------------------------------|----------------------------------------|------------------------------------|-------------------|----------|
| 750                                                                                           | Head | 2019/5/5  | 21.5    | 2.04                                           | 8.16                                   | 8.34                               | -2.16             | 1        |
|                                                                                               | Body | 2019/5/5  | 21.5    | 2.23                                           | 8.92                                   | 8.78                               | 1.59              | 2        |
| 835                                                                                           | Head | 2019/5/5  | 21.5    | 2.43                                           | 9.72                                   | 9.45                               | 2.86              | 3        |
|                                                                                               | Body | 2019/5/5  | 21.5    | 2.45                                           | 9.80                                   | 9.75                               | 0.51              | 4        |
| 1750                                                                                          | Head | 2019/5/6  | 21.5    | 8.92                                           | 35.68                                  | 37.2                               | -4.09             | 5        |
|                                                                                               | Body | 2019/5/5  | 21.5    | 9.43                                           | 37.72                                  | 37.6                               | 0.32              | 6        |
| 1900                                                                                          | Head | 2019/5/3  | 21.5    | 10.55                                          | 42.20                                  | 40.1                               | 5.24              | 7        |
|                                                                                               | Body | 2019/5/4  | 21.5    | 9.82                                           | 39.28                                  | 39.5                               | -0.56             | 8        |
| 2450                                                                                          | Head | 2019/5/7  | 21.5    | 13.20                                          | 52.80                                  | 52.6                               | 0.38              | 9        |
|                                                                                               | Body | 2019/5/6  | 21.5    | 13.2                                           | 52.80                                  | 50.8                               | 3.94              | 10       |
| 2600                                                                                          | Head | 2019/5/6  | 21.5    | 13.9                                           | 55.60                                  | 54.1                               | 2.77              | 11       |
|                                                                                               | Body | 2019/5/6  | 21.5    | 13.89                                          | 55.56                                  | 54.5                               | 1.94              | 12       |
| 5250                                                                                          | Head | 2019/5/7  | 21.5    | 7.54                                           | 75.4                                   | 78.4                               | -3.83             | 13       |
|                                                                                               | Body | 2019/5/7  | 21.5    | 7.45                                           | 74.5                                   | 75.6                               | -1.46             | 14       |
| 5600                                                                                          | Head | 2019/5/7  | 21.5    | 7.98                                           | 79.8                                   | 81.5                               | -2.09             | 15       |
|                                                                                               | Body | 2019/5/7  | 21.5    | 8.04                                           | 80.4                                   | 80.2                               | 0.25              | 16       |
| 5750                                                                                          | Head | 2019/5/7  | 21.5    | 7.72                                           | 77.2                                   | 80.5                               | -4.10             | 17       |
|                                                                                               | Body | 2019/5/7  | 21.5    | 7.21                                           | 72.1                                   | 74.6                               | -3.35             | 18       |
| Note: Target Values used derive from the calibration certificate Data Storage and Evaluation. |      |           |         |                                                |                                        |                                    |                   |          |

## 9 Normal and Maximum Output Power

KDB 447498 D01 at the maximum rated output power and within the tune-up tolerance range specified for the product, but not more than 2 dB lower than the maximum tune-up tolerance limit.

### 9.1 GSM Mode

#### Main- Antenna

| GSM 850<br>(Receiver on)<br>(Receiver off+SAR<br>sensor on Level<br>D1&D2)<br>(Receiver off+SAR<br>sensor on Level D3)<br>(Receiver off+SAR<br>sensor on Level D7)<br>(sensor off+hotspot<br>off)                             |            | Burst-Averaged output power(dBm) |                       |               |               | Division<br>Factors | Frame-Averaged output power(dBm) |                       |               |               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------------------------------|-----------------------|---------------|---------------|---------------------|----------------------------------|-----------------------|---------------|---------------|
|                                                                                                                                                                                                                               |            | Tune-up                          | Channel/Frenqucy(MHz) |               |               |                     | Tune-up                          | Channel/Frenqucy(MHz) |               |               |
|                                                                                                                                                                                                                               |            | MAX                              | 128<br>/824.2         | 190<br>/836.6 | 251<br>/848.8 |                     | MAX                              | 128<br>/824.2         | 190<br>/836.6 | 251<br>/848.8 |
| GSM                                                                                                                                                                                                                           | CS         | 33.80                            | 32.94                 | 32.76         | 32.77         | 9.03                | 24.77                            | 23.91                 | 23.73         | 23.74         |
| GPRS/<br>EGPRS<br>(GMSK)                                                                                                                                                                                                      | 1 Tx Slot  | 33.80                            | 32.97                 | 32.72         | 32.77         | 9.03                | 24.77                            | 23.94                 | 23.69         | 23.74         |
|                                                                                                                                                                                                                               | 2 Tx Slots | 31.80                            | 30.24                 | 30.41         | 30.43         | 6.02                | <b>25.78</b>                     | <b>24.22</b>          | <b>24.39</b>  | <b>24.41</b>  |
|                                                                                                                                                                                                                               | 3 Tx Slots | 29.80                            | 28.07                 | 28.20         | 28.06         | 4.26                | 25.54                            | 23.81                 | 23.94         | 23.80         |
|                                                                                                                                                                                                                               | 4 Tx Slots | 27.80                            | 25.82                 | 25.85         | 25.89         | 3.01                | 24.79                            | 22.81                 | 22.84         | 22.88         |
| EGPRS<br>(8PSK)                                                                                                                                                                                                               | 1 Tx Slot  | 27.50                            | 26.68                 | 26.54         | 26.49         | 9.03                | 18.47                            | 17.65                 | 17.51         | 17.46         |
|                                                                                                                                                                                                                               | 2 Tx Slots | 25.50                            | 23.97                 | 24.05         | 23.91         | 6.02                | 19.48                            | 17.95                 | 18.03         | 17.89         |
|                                                                                                                                                                                                                               | 3 Tx Slots | 23.50                            | 21.84                 | 21.93         | 21.90         | 4.26                | 19.24                            | 17.58                 | 17.67         | 17.64         |
|                                                                                                                                                                                                                               | 4 Tx Slots | 21.50                            | 19.82                 | 19.84         | 19.73         | 3.01                | 18.49                            | 16.81                 | 16.83         | 16.72         |
| GSM 850<br>(Hotspot on+<br>Receiver off+SAR<br>sensor on Level<br>D1&D2)<br>(Hotspot on+<br>Receiver off+SAR<br>sensor on Level D3)<br>(Hotspot on+<br>Receiver off+SAR<br>sensor on Level D7)<br>(sensor off+hotspot<br>off) |            | Burst-Averaged output power(dBm) |                       |               |               | Division<br>Factors | Frame-Averaged output power(dBm) |                       |               |               |
|                                                                                                                                                                                                                               |            | Tune-up                          | Channel/Frenqucy(MHz) |               |               |                     | Tune-up                          | Channel/Frenqucy(MHz) |               |               |
|                                                                                                                                                                                                                               |            | MAX                              | 128<br>/824.2         | 190<br>/836.6 | 251<br>/848.8 |                     | MAX                              | 128<br>/824.2         | 190<br>/836.6 | 251<br>/848.8 |
| GSM                                                                                                                                                                                                                           | CS         | 32.80                            | 31.58                 | 31.71         | 31.72         | 9.03                | 23.77                            | 22.55                 | 22.68         | 22.69         |



|                                                                                                                                                                                            |            |                                  |                       |           |             |                              |                                  |                       |           |             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------------------------------|-----------------------|-----------|-------------|------------------------------|----------------------------------|-----------------------|-----------|-------------|
| GPRS/EGPRS (GMSK)                                                                                                                                                                          |            |                                  |                       |           |             | Report Result for Measure 01 |                                  |                       |           |             |
| GPRS/EGPRS (GMSK)                                                                                                                                                                          | 1 Tx Slot  | 32.80                            | 31.62                 | 31.75     | 31.65       | 9.03                         | 23.77                            | 22.59                 | 22.72     | 22.62       |
|                                                                                                                                                                                            | 2 Tx Slots | 30.80                            | 29.38                 | 29.48     | 29.54       | 6.02                         | 24.78                            | 23.36                 | 23.46     | 23.52       |
|                                                                                                                                                                                            | 3 Tx Slots | 28.80                            | 27.19                 | 27.33     | 27.36       | 4.26                         | 24.54                            | 22.93                 | 23.07     | 23.10       |
|                                                                                                                                                                                            | 4 Tx Slots | 26.80                            | 24.93                 | 24.97     | 25.01       | 3.01                         | 23.79                            | 21.92                 | 21.96     | 22.00       |
| EGPRS (8PSK)                                                                                                                                                                               | 1 Tx Slot  | 26.50                            | 25.07                 | 25.21     | 25.18       | 9.03                         | 17.47                            | 16.04                 | 16.18     | 16.15       |
|                                                                                                                                                                                            | 2 Tx Slots | 24.50                            | 23.09                 | 23.19     | 23.16       | 6.02                         | 18.48                            | 17.07                 | 17.17     | 17.14       |
|                                                                                                                                                                                            | 3 Tx Slots | 22.50                            | 20.98                 | 21.14     | 21.07       | 4.26                         | 18.24                            | 16.72                 | 16.88     | 16.81       |
|                                                                                                                                                                                            | 4 Tx Slots | 20.50                            | 19.17                 | 19.20     | 19.22       | 3.01                         | 17.49                            | 16.16                 | 16.19     | 16.21       |
| GSM 1900 (Receiver on) (Receiver off+SAR sensor on Level D1&D2) (Receiver off+SAR sensor on Level D3) (Receiver off+SAR sensor on Level D7) (sensor off+hotspot off)                       |            | Burst-Averaged output power(dBm) |                       |           |             | Division Factors             | Frame-Averaged output power(dBm) |                       |           |             |
|                                                                                                                                                                                            |            | Tune-up                          | Channel/Frenqucy(MHz) |           |             |                              | Tune-up                          | Channel/Frenqucy(MHz) |           |             |
|                                                                                                                                                                                            |            | MAX                              | 512 /1850.2           | 661 /1880 | 810 /1909.8 |                              | MAX                              | 512 /1850.2           | 661 /1880 | 810 /1909.8 |
|                                                                                                                                                                                            |            |                                  |                       |           |             |                              |                                  |                       |           |             |
| GSM                                                                                                                                                                                        | CS         | 30.80                            | 30.11                 | 30.34     | 30.47       | 9.03                         | 21.77                            | 21.08                 | 21.31     | 21.44       |
| GPRS/EGPRS (GMSK)                                                                                                                                                                          | 1 Tx Slot  | 30.80                            | 30.14                 | 30.43     | 30.56       | 9.03                         | 21.77                            | 21.11                 | 21.40     | 21.53       |
|                                                                                                                                                                                            | 2 Tx Slots | 28.80                            | 28.05                 | 28.24     | 28.29       | 6.02                         | 22.78                            | 22.03                 | 22.22     | 22.27       |
|                                                                                                                                                                                            | 3 Tx Slots | 26.80                            | 25.90                 | 26.13     | 26.02       | 4.26                         | 22.54                            | 21.64                 | 21.87     | 21.76       |
|                                                                                                                                                                                            | 4 Tx Slots | 24.80                            | 23.80                 | 24.01     | 24.06       | 3.01                         | 21.79                            | 20.79                 | 21.00     | 21.05       |
| EGPRS (8PSK)                                                                                                                                                                               | 1 Tx Slot  | 26.50                            | 25.36                 | 25.14     | 25.48       | 9.03                         | 17.47                            | 16.33                 | 16.11     | 16.45       |
|                                                                                                                                                                                            | 2 Tx Slots | 24.50                            | 23.19                 | 22.95     | 23.34       | 6.02                         | 18.48                            | 17.17                 | 16.93     | 17.32       |
|                                                                                                                                                                                            | 3 Tx Slots | 22.50                            | 20.89                 | 20.77     | 20.85       | 4.26                         | 18.24                            | 16.63                 | 16.51     | 16.59       |
|                                                                                                                                                                                            | 4 Tx Slots | 20.50                            | 18.87                 | 18.76     | 18.95       | 3.01                         | 17.49                            | 15.86                 | 15.75     | 15.94       |
| GSM 1900 (Hotspot on+ Receiver off+SAR sensor on Level D1&D2) (Hotspot on+ Receiver off+SAR sensor on Level D3) (Hotspot on+ Receiver off+SAR sensor on Level D7) (sensor off+hotspot off) |            | Burst-Averaged output power(dBm) |                       |           |             | Division Factors             | Frame-Averaged output power(dBm) |                       |           |             |
|                                                                                                                                                                                            |            | Tune-up                          | Channel/Frenqucy(MHz) |           |             |                              | Tune-up                          | Channel/Frenqucy(MHz) |           |             |
|                                                                                                                                                                                            |            | MAX                              | 512 /1850.2           | 661 /1880 | 810 /1909.8 |                              | MAX                              | 512 /1850.2           | 661 /1880 | 810 /1909.8 |
|                                                                                                                                                                                            |            |                                  |                       |           |             |                              |                                  |                       |           |             |
| GSM                                                                                                                                                                                        | CS         | 29.80                            | 29.10                 | 29.33     | 29.42       | 9.03                         | 20.77                            | 20.07                 | 20.30     | 20.39       |

|                          |            |       |       |       |       |      |              |              |              |              |
|--------------------------|------------|-------|-------|-------|-------|------|--------------|--------------|--------------|--------------|
| GPRS/<br>EGPRS<br>(GMSK) | 1 Tx Slot  | 29.80 | 29.20 | 29.43 | 29.45 | 9.03 | 20.77        | 20.17        | 20.40        | 20.42        |
|                          | 2 Tx Slots | 27.80 | 27.01 | 27.22 | 27.26 | 6.02 | <b>21.78</b> | <b>20.99</b> | <b>21.20</b> | <b>21.24</b> |
|                          | 3 Tx Slots | 25.80 | 24.89 | 25.09 | 25.07 | 4.26 | 21.54        | 20.63        | 20.83        | 20.81        |
|                          | 4 Tx Slots | 23.80 | 22.91 | 23.16 | 23.12 | 3.01 | 20.79        | 19.90        | 20.15        | 20.11        |
| EGPRS<br>(8PSK)          | 1 Tx Slot  | 25.50 | 24.11 | 24.27 | 24.41 | 9.03 | 16.47        | 15.08        | 15.24        | 15.38        |
|                          | 2 Tx Slots | 23.50 | 22.09 | 22.15 | 22.40 | 6.02 | 17.48        | 16.07        | 16.13        | 16.38        |
|                          | 3 Tx Slots | 21.50 | 19.97 | 20.03 | 20.12 | 4.26 | 17.24        | 15.71        | 15.77        | 15.86        |
|                          | 4 Tx Slots | 19.50 | 17.95 | 17.98 | 18.02 | 3.01 | 16.49        | 14.94        | 14.97        | 15.01        |

Notes: The worst-case configuration and mode for SAR testing is determined to be as follows:

1. Standalone: GSM 850 GMSK (GPRS) mode with 2 time slots for Max power, GSM 1900 GMSK (GPRS) mode with 2 time slots for Max power, based on the output power measurements above..

## Second – Antenna

| GSM 850<br>(Receiver on)  |            | Burst-Averaged output power(dBm) |                       |               |               | Division<br><br>Factors | Frame-Averaged output power(dBm) |                       |               |               |
|---------------------------|------------|----------------------------------|-----------------------|---------------|---------------|-------------------------|----------------------------------|-----------------------|---------------|---------------|
|                           |            | Tune-up                          | Channel/Frenqucy(MHz) |               |               |                         | Tune-up                          | Channel/Frenqucy(MHz) |               |               |
|                           |            | MAX                              | 128<br>/824.2         | 190<br>/836.6 | 251<br>/848.8 |                         | MAX                              | 128<br>/824.2         | 190<br>/836.6 | 251<br>/848.8 |
| GSM                       | CS         | 28.30                            | 27.12                 | 27.12         | 27.10         | 9.03                    | 19.27                            | 18.09                 | 18.09         | 18.07         |
| GPRS/<br>EGPRS<br>(GMSK)  | 1 Tx Slot  | 28.30                            | 27.19                 | 27.20         | 27.11         | 9.03                    | 19.27                            | 18.16                 | 18.17         | 18.08         |
|                           | 2 Tx Slots | 26.30                            | 25.08                 | 24.98         | 24.88         | 6.02                    | <b>20.28</b>                     | <b>19.06</b>          | <b>18.96</b>  | <b>18.86</b>  |
|                           | 3 Tx Slots | 24.30                            | 22.69                 | 22.86         | 22.87         | 4.26                    | 20.04                            | 18.43                 | 18.60         | 18.61         |
|                           | 4 Tx Slots | 22.30                            | 20.42                 | 20.62         | 20.59         | 3.01                    | 19.29                            | 17.41                 | 17.61         | 17.58         |
| EGPRS<br>(8PSK)           | 1 Tx Slot  | 22.00                            | 21.02                 | 21.04         | 20.92         | 9.03                    | 12.97                            | 11.99                 | 12.01         | 11.89         |
|                           | 2 Tx Slots | 20.00                            | 19.47                 | 19.22         | 18.68         | 6.02                    | 13.98                            | 13.45                 | 13.20         | 12.66         |
|                           | 3 Tx Slots | 18.00                            | 16.28                 | 16.25         | 16.02         | 4.26                    | 13.74                            | 12.02                 | 11.99         | 11.76         |
|                           | 4 Tx Slots | 16.00                            | 15.43                 | 15.51         | 15.45         | 3.01                    | 12.99                            | 12.42                 | 12.50         | 12.44         |
| GSM 850<br>(Receiver off) |            | Burst-Averaged output power(dBm) |                       |               |               | Division<br><br>Factors | Frame-Averaged output power(dBm) |                       |               |               |
|                           |            | Tune-up                          | Channel/Frenqucy(MHz) |               |               |                         | Tune-up                          | Channel/Frenqucy(MHz) |               |               |
|                           |            | MAX                              | 128<br>/824.2         | 190<br>/836.6 | 251<br>/848.8 |                         | MAX                              | 128<br>/824.2         | 190<br>/836.6 | 251<br>/848.8 |
| GSM                       | CS         | 33.30                            | 32.43                 | 32.09         | 32.12         | 9.03                    | 24.27                            | 23.40                 | 23.06         | 23.09         |
| GPRS/<br>EGPRS<br>(GMSK)  | 1 Tx Slot  | 33.30                            | 32.47                 | 32.11         | 32.16         | 9.03                    | 24.27                            | 23.44                 | 23.08         | 23.13         |
|                           | 2 Tx Slots | 31.30                            | 29.79                 | 29.74         | 29.71         | 6.02                    | <b>25.28</b>                     | <b>23.77</b>          | <b>23.72</b>  | <b>23.69</b>  |
|                           | 3 Tx Slots | 29.30                            | 27.52                 | 27.48         | 27.47         | 4.26                    | 25.04                            | 23.26                 | 23.22         | 23.21         |
|                           | 4 Tx Slots | 27.30                            | 25.34                 | 25.29         | 25.19         | 3.01                    | 24.29                            | 22.33                 | 22.28         | 22.18         |
| EGPRS<br>(8PSK)           | 1 Tx Slot  | 27.00                            | 26.04                 | 25.96         | 25.92         | 9.03                    | 17.97                            | 17.01                 | 16.93         | 16.89         |
|                           | 2 Tx Slots | 25.00                            | 23.57                 | 23.44         | 23.41         | 6.02                    | 18.98                            | 17.55                 | 17.42         | 17.39         |
|                           | 3 Tx Slots | 23.00                            | 21.23                 | 21.31         | 21.14         | 4.26                    | 18.74                            | 16.97                 | 17.05         | 16.88         |
|                           | 4 Tx Slots | 21.00                            | 19.56                 | 18.81         | 19.32         | 3.01                    | 17.99                            | 16.55                 | 15.80         | 16.31         |
| GSM 1900                  |            | Burst-Averaged output power(dBm) |                       |               |               | Division                | Frame-Averaged output power(dBm) |                       |               |               |

| (Receiver on)                                                                                                                                                                                                                                                                      |            | Tune-up                          | Channel/Frenqucy(MHz) |              |                | Factors                 | Tune-up                          | Channel/Frenqucy(MHz) |              |                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------------------------------|-----------------------|--------------|----------------|-------------------------|----------------------------------|-----------------------|--------------|----------------|
|                                                                                                                                                                                                                                                                                    |            | MAX                              | 512<br>/1850.2        | 661<br>/1880 | 810<br>/1909.8 |                         | MAX                              | 512<br>/1850.2        | 661<br>/1880 | 810<br>/1909.8 |
| GSM                                                                                                                                                                                                                                                                                | CS         | 27.30                            | 26.52                 | 26.03        | 25.85          | 9.03                    | 18.27                            | 17.49                 | 17.00        | 16.82          |
| GPRS/<br>EGPRS<br>(GMSK)                                                                                                                                                                                                                                                           | 1 Tx Slot  | 27.30                            | 26.55                 | 26.06        | 25.84          | 9.03                    | 18.27                            | 17.52                 | 17.03        | 16.81          |
|                                                                                                                                                                                                                                                                                    | 2 Tx Slots | 25.30                            | 24.42                 | 23.95        | 23.74          | 6.02                    | <b>19.28</b>                     | <b>18.40</b>          | <b>17.93</b> | <b>17.72</b>   |
|                                                                                                                                                                                                                                                                                    | 3 Tx Slots | 23.30                            | 22.51                 | 21.91        | 21.65          | 4.26                    | 19.04                            | 18.25                 | 17.65        | 17.39          |
|                                                                                                                                                                                                                                                                                    | 4 Tx Slots | 21.30                            | 19.98                 | 19.41        | 19.37          | 3.01                    | 18.29                            | 16.97                 | 16.40        | 16.36          |
| EGPRS<br>(8PSK)                                                                                                                                                                                                                                                                    | 1 Tx Slot  | 23.00                            | 21.72                 | 21.13        | 21.05          | 9.03                    | 13.97                            | 12.69                 | 12.10        | 12.02          |
|                                                                                                                                                                                                                                                                                    | 2 Tx Slots | 21.00                            | 19.64                 | 18.98        | 18.87          | 6.02                    | 14.98                            | 13.62                 | 12.96        | 12.85          |
|                                                                                                                                                                                                                                                                                    | 3 Tx Slots | 19.00                            | 17.42                 | 17.01        | 16.87          | 4.26                    | 14.74                            | 13.16                 | 12.75        | 12.61          |
|                                                                                                                                                                                                                                                                                    | 4 Tx Slots | 17.00                            | 15.41                 | 15.16        | 15.13          | 3.01                    | 13.99                            | 12.40                 | 12.15        | 12.12          |
| GSM 1900<br>(Receiver off)                                                                                                                                                                                                                                                         |            | Burst-Averaged output power(dBm) |                       |              |                | Division<br><br>Factors | Frame-Averaged output power(dBm) |                       |              |                |
|                                                                                                                                                                                                                                                                                    |            | Tune-up                          | Channel/Frenqucy(MHz) |              |                |                         | Tune-up                          | Channel/Frenqucy(MHz) |              |                |
|                                                                                                                                                                                                                                                                                    |            | MAX                              | 512<br>/1850.2        | 661<br>/1880 | 810<br>/1909.8 |                         | MAX                              | 512<br>/1850.2        | 661<br>/1880 | 810<br>/1909.8 |
| GSM                                                                                                                                                                                                                                                                                | CS         | 30.80                            | 30.09                 | 29.67        | 29.63          | 9.03                    | 21.77                            | 21.06                 | 20.64        | 20.60          |
| GPRS/<br>EGPRS<br>(GMSK)                                                                                                                                                                                                                                                           | 1 Tx Slot  | 30.80                            | 30.12                 | 29.67        | 29.61          | 9.03                    | 21.77                            | 21.09                 | 20.64        | 20.58          |
|                                                                                                                                                                                                                                                                                    | 2 Tx Slots | 28.80                            | 27.87                 | 27.54        | 27.34          | 6.02                    | <b>22.78</b>                     | <b>21.85</b>          | <b>21.52</b> | <b>21.32</b>   |
|                                                                                                                                                                                                                                                                                    | 3 Tx Slots | 26.80                            | 25.85                 | 25.26        | 25.06          | 4.26                    | 22.54                            | 21.59                 | 21.00        | 20.80          |
|                                                                                                                                                                                                                                                                                    | 4 Tx Slots | 24.80                            | 23.78                 | 23.20        | 22.98          | 3.01                    | 21.79                            | 20.77                 | 20.19        | 19.97          |
| EGPRS<br>(8PSK)                                                                                                                                                                                                                                                                    | 1 Tx Slot  | 26.50                            | 25.23                 | 24.87        | 24.48          | 9.03                    | 17.47                            | 16.20                 | 15.84        | 15.45          |
|                                                                                                                                                                                                                                                                                    | 2 Tx Slots | 24.50                            | 23.01                 | 22.50        | 22.15          | 6.02                    | 18.48                            | 16.99                 | 16.48        | 16.13          |
|                                                                                                                                                                                                                                                                                    | 3 Tx Slots | 22.50                            | 20.87                 | 20.28        | 20.04          | 4.26                    | 18.24                            | 16.61                 | 16.02        | 15.78          |
|                                                                                                                                                                                                                                                                                    | 4 Tx Slots | 20.50                            | 18.89                 | 18.40        | 18.27          | 3.01                    | 17.49                            | 15.88                 | 15.39        | 15.26          |
| Notes: The worst-case configuration and mode for SAR testing is determined to be as follows:<br>1. Standalone: GSM 850 GMSK (GPRS) mode with 2 time slots for Max power, GSM 1900 GMSK (GPRS) mode with 2 time slots for Max power, based on the output power measurements above.. |            |                                  |                       |              |                |                         |                                  |                       |              |                |

## 9.2 WCDMA Mode

The following tests were completed according to the test requirements outlined in the 3GPP TS34.121 specification.

### Main- Antenna

| WCDMA          |          | Band II(dBm)<br>(Receiver on)<br>(Receiver off+SAR sensor on Level D3)<br>(Receiver off+SAR sensor on Level D7)<br>(sensor off+hotspot off) |       |        |         | Band II(dBm)<br>(Receiver off+SAR sensor on Level D1&D2) |       |                                          |         | Band II(dBm)<br>(Hotspot on+Receiver off+SAR sensor on Level D3)<br>(Hotspot on+Receiver off+SAR sensor on Level D7)<br>(sensor off+hotspot on) |       |        |         |        |  |         |  |
|----------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------|-------|--------|---------|----------------------------------------------------------|-------|------------------------------------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------|-------|--------|---------|--------|--|---------|--|
| Tx Channel     |          | 9262                                                                                                                                        | 9400  | 9538   | Tune-up | 9262                                                     | 9400  | 9538                                     | Tune-up | 9262                                                                                                                                            | 9400  | 9538   | Tune-up |        |  |         |  |
| Frequency(MHz) |          | 1852.4                                                                                                                                      | 1880  | 1907.6 | Limit   | 1852.4                                                   | 1880  | 1907.6                                   | Limit   | 1852.4                                                                                                                                          | 1880  | 1907.6 | Limit   |        |  |         |  |
| RMC            | 12.2kbps | 23.97                                                                                                                                       | 24.04 | 24.01  | 25.00   | 23.43                                                    | 23.58 | 23.61                                    | 25.00   | 20.63                                                                                                                                           | 20.72 | 20.55  | 21.50   |        |  |         |  |
| AMR            | 12.2kbps | 23.91                                                                                                                                       | 23.95 | 23.94  | 25.00   | 23.33                                                    | 23.49 | 23.48                                    | 25.00   | 20.53                                                                                                                                           | 20.63 | 20.42  | 21.50   |        |  |         |  |
| HSDPA          | Sub 1    | 24.39                                                                                                                                       | 24.46 | 24.43  | 25.00   | 23.85                                                    | 24.00 | 24.03                                    | 25.00   | 20.05                                                                                                                                           | 20.14 | 19.97  | 21.50   |        |  |         |  |
|                | Sub 2    | 23.38                                                                                                                                       | 23.45 | 23.42  | 24.50   | 22.84                                                    | 22.99 | 23.02                                    | 24.50   | 20.04                                                                                                                                           | 20.13 | 19.96  | 21.00   |        |  |         |  |
|                | Sub 3    | 22.87                                                                                                                                       | 22.94 | 22.91  | 24.00   | 22.33                                                    | 22.48 | 22.51                                    | 24.00   | 19.53                                                                                                                                           | 19.62 | 19.45  | 20.50   |        |  |         |  |
|                | Sub 4    | 22.86                                                                                                                                       | 22.93 | 22.90  | 24.00   | 22.32                                                    | 22.47 | 22.50                                    | 24.00   | 19.52                                                                                                                                           | 19.61 | 19.44  | 20.50   |        |  |         |  |
| HSUPA          | Sub 1    | 24.35                                                                                                                                       | 24.42 | 24.39  | 25.00   | 23.81                                                    | 23.96 | 23.99                                    | 25.00   | 20.01                                                                                                                                           | 20.10 | 19.93  | 21.50   |        |  |         |  |
|                | Sub 2    | 24.34                                                                                                                                       | 24.41 | 24.38  | 25.00   | 23.80                                                    | 23.95 | 23.98                                    | 25.00   | 19.70                                                                                                                                           | 19.79 | 19.62  | 21.50   |        |  |         |  |
|                | Sub 3    | 23.82                                                                                                                                       | 23.90 | 23.87  | 25.00   | 23.28                                                    | 23.44 | 23.47                                    | 25.00   | 20.18                                                                                                                                           | 20.28 | 20.11  | 21.50   |        |  |         |  |
|                | Sub 4    | 24.31                                                                                                                                       | 24.39 | 24.36  | 25.00   | 23.77                                                    | 23.93 | 23.96                                    | 25.00   | 19.67                                                                                                                                           | 19.77 | 19.60  | 21.50   |        |  |         |  |
|                | Sub 5    | 24.30                                                                                                                                       | 24.38 | 24.35  | 25.00   | 23.76                                                    | 23.92 | 23.95                                    | 25.00   | 19.96                                                                                                                                           | 20.06 | 19.89  | 21.50   |        |  |         |  |
| DC-HSDPA       | Sub 1    | 24.11                                                                                                                                       | 24.20 | 24.15  | 25.00   | 23.57                                                    | 23.74 | 23.75                                    | 25.00   | 19.77                                                                                                                                           | 19.88 | 19.69  | 21.50   |        |  |         |  |
|                | Sub 2    | 24.10                                                                                                                                       | 24.19 | 24.14  | 24.50   | 22.56                                                    | 22.73 | 22.74                                    | 24.50   | 19.76                                                                                                                                           | 19.87 | 19.68  | 21.00   |        |  |         |  |
|                | Sub 3    | 23.68                                                                                                                                       | 23.68 | 23.65  | 24.00   | 22.14                                                    | 22.22 | 22.25                                    | 24.00   | 19.34                                                                                                                                           | 19.36 | 19.19  | 20.50   |        |  |         |  |
|                | Sub 4    | 23.67                                                                                                                                       | 23.67 | 23.64  | 24.00   | 22.13                                                    | 22.21 | 22.24                                    | 24.00   | 19.33                                                                                                                                           | 19.35 | 19.18  | 20.50   |        |  |         |  |
| WCDMA          |          | Band II(dBm)<br>(Hotspot on+Receiver off+SAR sensor on Level D1&D2)                                                                         |       |        |         |                                                          |       | Band II(dBm)<br>(Hotspot on+Receiver on) |         |                                                                                                                                                 |       |        |         |        |  |         |  |
| Tx Channel     |          | 9262                                                                                                                                        |       | 9400   |         | 9538                                                     |       | Tune-up                                  |         | 9262                                                                                                                                            |       | 9400   |         | 9538   |  | Tune-up |  |
| Frequency(MHz) |          | 1852.4                                                                                                                                      |       | 1880   |         | 1907.6                                                   |       | Limit                                    |         | 1852.4                                                                                                                                          |       | 1880   |         | 1907.6 |  | Limit   |  |
| RMC            | 12.2kbps | 20.17                                                                                                                                       |       | 20.25  |         | 20.19                                                    |       | 20.50                                    |         | 20.17                                                                                                                                           |       | 20.24  |         | 20.35  |  | 22.00   |  |
| AMR            | 12.2kbps | 20.07                                                                                                                                       |       | 20.16  |         | 20.06                                                    |       | 20.50                                    |         | 20.07                                                                                                                                           |       | 20.15  |         | 20.22  |  | 22.00   |  |
| HSDPA          | Sub 1    | 19.59                                                                                                                                       |       | 19.67  |         | 19.61                                                    |       | 20.50                                    |         | 21.59                                                                                                                                           |       | 21.66  |         | 21.77  |  | 22.00   |  |
|                | Sub 2    | 19.58                                                                                                                                       |       | 19.66  |         | 19.60                                                    |       | 20.00                                    |         | 19.58                                                                                                                                           |       | 19.65  |         | 19.76  |  | 21.50   |  |
|                | Sub 3    | 19.07                                                                                                                                       |       | 19.15  |         | 19.09                                                    |       | 19.50                                    |         | 20.07                                                                                                                                           |       | 20.14  |         | 20.25  |  | 21.00   |  |
|                | Sub 4    | 19.06                                                                                                                                       |       | 19.14  |         | 19.08                                                    |       | 19.50                                    |         | 20.06                                                                                                                                           |       | 20.13  |         | 20.24  |  | 21.00   |  |

|              |       |       |       |       |       |       |       |       |       |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| HSUPA        | Sub 1 | 19.55 | 19.63 | 19.57 | 20.50 | 21.55 | 21.62 | 21.73 | 22.00 |
|              | Sub 2 | 18.54 | 18.62 | 18.56 | 20.50 | 20.54 | 20.61 | 20.72 | 22.00 |
|              | Sub 3 | 19.02 | 19.11 | 19.05 | 20.50 | 21.02 | 21.10 | 21.21 | 22.00 |
|              | Sub 4 | 18.51 | 18.60 | 18.54 | 20.50 | 20.51 | 20.59 | 20.70 | 22.00 |
|              | Sub 5 | 19.50 | 19.59 | 19.53 | 20.50 | 21.50 | 21.58 | 21.69 | 22.00 |
| DC-HS<br>DPA | Sub 1 | 19.31 | 19.41 | 19.33 | 20.50 | 21.31 | 21.40 | 21.49 | 22.00 |
|              | Sub 2 | 19.30 | 19.40 | 19.32 | 20.00 | 19.80 | 19.89 | 19.98 | 21.50 |
|              | Sub 3 | 18.88 | 18.89 | 18.83 | 19.50 | 19.88 | 19.88 | 19.99 | 21.00 |
|              | Sub 4 | 18.87 | 18.88 | 18.82 | 19.50 | 19.87 | 19.87 | 19.98 | 21.00 |

Note: 1.Per KDB 941225 D01, SAR for each exposure is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".

| WCDMA          |          | Band IV(dBm)<br>(Receiver on)<br>(Receiver off+SAR sensor on Level D3)<br>(Receiver off+SAR sensor on Level D7)<br>(Sensor off+Hotspot off) |        |        |         | Band IV(dBm)<br>(Receiver off+SAR sensor on Level D1&D2) |        |        |         |
|----------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|---------|----------------------------------------------------------|--------|--------|---------|
| Tx Channel     |          | 1312                                                                                                                                        | 1413   | 1513   | Tune-up | 1312                                                     | 1413   | 1513   | Tune-up |
| Frequency(MHz) |          | 1712.4                                                                                                                                      | 1732.6 | 1752.6 | Limit   | 1712.4                                                   | 1732.6 | 1752.6 | Limit   |
| RMC            | 12.2kbps | 22.99                                                                                                                                       | 22.95  | 22.87  | 24.50   | 22.35                                                    | 22.57  | 22.42  | 23.50   |
| AMR            | 12.2kbps | 22.89                                                                                                                                       | 22.86  | 22.74  | 24.50   | 22.25                                                    | 22.48  | 22.29  | 23.50   |
| HSDPA          | Sub 1    | 24.41                                                                                                                                       | 24.37  | 24.33  | 26.00   | 23.84                                                    | 24.06  | 23.91  | 25.00   |
|                | Sub 2    | 24.40                                                                                                                                       | 24.36  | 24.28  | 25.50   | 23.25                                                    | 23.47  | 23.32  | 24.50   |
|                | Sub 3    | 23.89                                                                                                                                       | 23.85  | 23.77  | 25.00   | 22.67                                                    | 22.89  | 22.74  | 24.00   |
|                | Sub 4    | 23.88                                                                                                                                       | 23.84  | 23.76  | 25.00   | 22.66                                                    | 22.88  | 22.73  | 24.00   |
| HSUPA          | Sub 1    | 23.37                                                                                                                                       | 23.33  | 23.25  | 24.50   | 22.80                                                    | 23.02  | 22.87  | 23.50   |
|                | Sub 2    | 23.36                                                                                                                                       | 23.32  | 23.24  | 24.50   | 22.29                                                    | 22.51  | 22.36  | 23.50   |
|                | Sub 3    | 22.84                                                                                                                                       | 22.81  | 22.73  | 24.50   | 22.77                                                    | 21.70  | 22.85  | 23.50   |
|                | Sub 4    | 23.33                                                                                                                                       | 23.30  | 23.22  | 24.50   | 22.26                                                    | 22.49  | 22.34  | 23.50   |
|                | Sub 5    | 23.32                                                                                                                                       | 23.29  | 23.21  | 24.50   | 22.75                                                    | 22.73  | 22.83  | 23.50   |
| DC-HSDPA       | Sub 1    | 25.13                                                                                                                                       | 25.11  | 25.01  | 26.00   | 23.84                                                    | 24.08  | 23.91  | 25.00   |
|                | Sub 2    | 24.12                                                                                                                                       | 24.10  | 24.00  | 25.50   | 23.33                                                    | 23.57  | 23.40  | 24.50   |
|                | Sub 3    | 23.70                                                                                                                                       | 23.59  | 23.51  | 25.00   | 23.06                                                    | 23.21  | 23.06  | 24.00   |
|                | Sub 4    | 23.69                                                                                                                                       | 23.58  | 23.50  | 25.00   | 23.05                                                    | 23.20  | 23.05  | 24.00   |

| WCDMA |  | Band IV(dBm)<br>(Hotspot on+Receiver on)<br>(Hotspot on+Receiver off+SAR sensor on Level D3)<br>(Hotspot on+Receiver off+SAR sensor on Level D7) |  |  |  | Band IV(dBm)<br>(Hotspot on+Receiver off+SAR sensor on Level D1&D2) |  |  |  |
|-------|--|--------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|---------------------------------------------------------------------|--|--|--|
|-------|--|--------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|---------------------------------------------------------------------|--|--|--|

|                |          | (sensor off+hotspot on) |        |        |         |        |        |        |         |
|----------------|----------|-------------------------|--------|--------|---------|--------|--------|--------|---------|
| Tx Channel     |          | 1312                    | 1413   | 1513   | Tune-up | 1312   | 1413   | 1513   | Tune-up |
| Frequency(MHz) |          | 1712.4                  | 1732.6 | 1752.6 | Limit   | 1712.4 | 1732.6 | 1752.6 | Limit   |
| RMC            | 12.2kbps | 20.44                   | 20.54  | 20.41  | 21.50   | 20.08  | 20.02  | 20.03  | 20.50   |
| AMR            | 12.2kbps | 20.34                   | 20.45  | 20.28  | 21.50   | 19.98  | 19.93  | 19.90  | 20.50   |
| HSDPA          | Sub 1    | 22.86                   | 22.96  | 22.83  | 23.00   | 20.50  | 20.44  | 20.45  | 22.00   |
|                | Sub 2    | 21.35                   | 21.45  | 21.32  | 22.50   | 19.99  | 19.93  | 19.94  | 21.50   |
|                | Sub 3    | 20.34                   | 20.44  | 20.31  | 22.00   | 19.48  | 19.42  | 19.43  | 21.00   |
|                | Sub 4    | 20.33                   | 20.43  | 20.30  | 22.00   | 19.47  | 19.41  | 19.42  | 21.00   |
| HSUPA          | Sub 1    | 20.82                   | 20.92  | 20.79  | 21.50   | 19.96  | 19.90  | 19.91  | 20.50   |
|                | Sub 2    | 19.81                   | 19.91  | 19.78  | 21.50   | 18.95  | 18.89  | 18.90  | 20.50   |
|                | Sub 3    | 20.29                   | 20.40  | 20.27  | 21.50   | 19.43  | 19.38  | 19.39  | 20.50   |
|                | Sub 4    | 19.78                   | 19.89  | 19.76  | 21.50   | 18.92  | 18.87  | 18.88  | 20.50   |
|                | Sub 5    | 20.77                   | 20.88  | 20.75  | 21.50   | 19.91  | 19.86  | 19.87  | 20.50   |
| DC-HSDPA       | Sub 1    | 21.58                   | 21.70  | 21.55  | 23.00   | 20.22  | 20.18  | 20.17  | 22.00   |
|                | Sub 2    | 21.07                   | 21.19  | 21.04  | 22.50   | 19.71  | 19.67  | 19.66  | 21.50   |
|                | Sub 3    | 20.15                   | 20.18  | 20.05  | 22.00   | 19.29  | 19.16  | 19.17  | 21.00   |
|                | Sub 4    | 20.14                   | 20.17  | 20.04  | 22.00   | 19.28  | 19.15  | 19.16  | 21.00   |

Note: 1.Per KDB 941225 D01, SAR for each exposure is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".

| WCDMA          |          | Band V(dBm)<br>(Receiver on)<br>(Receiver off+SAR sensor on Level D1&D2)<br>(Receiver off+SAR sensor on Level D3)<br>(Receiver off+SAR sensor on Level D7)<br>(Sensor off+Hotspot off) |       |       |         | Band V(dBm)<br>(Hotspot on+Receiver on)<br>(Hotspot on+Receiver off+SAR sensor on Level D1&D2)<br>(Hotspot on+Receiver off+SAR sensor on Level D3)<br>(Hotspot on+Receiver off+SAR sensor on Level D7)<br>(sensor off+hotspot on) |       |       |         |
|----------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|---------|
| Tx Channel     |          | 4132                                                                                                                                                                                   | 4183  | 4233  | Tune-up | 4132                                                                                                                                                                                                                              | 4183  | 4233  | Tune-up |
| Frequency(MHz) |          | 826.4                                                                                                                                                                                  | 836.6 | 846.6 | Limit   | 826.4                                                                                                                                                                                                                             | 836.6 | 846.6 | Limit   |
| RMC            | 12.2kbps | 23.88                                                                                                                                                                                  | 23.92 | 23.84 | 25.00   | 22.87                                                                                                                                                                                                                             | 22.92 | 22.87 | 24.00   |
| AMR            | 12.2kbps | 23.78                                                                                                                                                                                  | 23.83 | 23.71 | 25.00   | 22.77                                                                                                                                                                                                                             | 22.83 | 22.74 | 24.00   |
| HSDPA          | Sub 1    | 23.30                                                                                                                                                                                  | 23.34 | 23.26 | 25.00   | 22.29                                                                                                                                                                                                                             | 22.34 | 22.29 | 24.00   |
|                | Sub 2    | 23.29                                                                                                                                                                                  | 23.33 | 23.25 | 24.50   | 22.28                                                                                                                                                                                                                             | 22.33 | 22.28 | 23.50   |
|                | Sub 3    | 22.78                                                                                                                                                                                  | 22.82 | 22.74 | 24.00   | 21.77                                                                                                                                                                                                                             | 21.82 | 21.77 | 23.00   |
|                | Sub 4    | 22.77                                                                                                                                                                                  | 22.81 | 22.73 | 24.00   | 21.76                                                                                                                                                                                                                             | 21.81 | 21.76 | 23.00   |
| HSUPA          | Sub 1    | 23.26                                                                                                                                                                                  | 23.30 | 23.22 | 25.00   | 22.25                                                                                                                                                                                                                             | 22.30 | 22.25 | 24.00   |
|                | Sub 2    | 23.25                                                                                                                                                                                  | 23.29 | 23.21 | 25.00   | 22.24                                                                                                                                                                                                                             | 22.29 | 22.24 | 24.00   |
|                | Sub 3    | 23.73                                                                                                                                                                                  | 23.78 | 23.70 | 25.00   | 22.72                                                                                                                                                                                                                             | 22.78 | 22.73 | 24.00   |

|          |       |       |       |       |       |       |       |       |       |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|          | Sub 4 | 23.22 | 23.27 | 23.19 | 25.00 | 22.21 | 22.27 | 22.22 | 24.00 |
|          | Sub 5 | 23.21 | 23.26 | 23.18 | 25.00 | 23.20 | 23.26 | 23.21 | 24.00 |
| DC-HSDPA | Sub 1 | 23.02 | 23.08 | 22.98 | 25.00 | 22.01 | 22.08 | 22.01 | 24.00 |
|          | Sub 2 | 23.01 | 23.07 | 22.97 | 24.50 | 22.00 | 22.07 | 22.00 | 23.50 |
|          | Sub 3 | 22.59 | 22.56 | 22.48 | 24.00 | 21.58 | 21.56 | 21.51 | 23.00 |
|          | Sub 4 | 22.58 | 22.55 | 22.47 | 24.00 | 21.57 | 21.55 | 21.50 | 23.00 |

Note: 1.Per KDB 941225 D01, SAR for each exposure is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".

**Second - Antenna**

| WCDMA          |          | Band II(dBm)<br>(Receiver on) |       |        |         | Band II(dBm)<br>(Receiver off) |       |        |         |
|----------------|----------|-------------------------------|-------|--------|---------|--------------------------------|-------|--------|---------|
| Tx Channel     |          | 9262                          | 9400  | 9538   | Tune-up | 9262                           | 9400  | 9538   | Tune-up |
| Frequency(MHz) |          | 1852.4                        | 1880  | 1907.6 | Limit   | 1852.4                         | 1880  | 1907.6 | Limit   |
| RMC            | 12.2kbps | 16.38                         | 16.64 | 16.71  | 18.00   | 22.40                          | 22.62 | 22.76  | 24.00   |
| AMR            | 12.2kbps | 16.28                         | 16.55 | 16.58  | 18.00   | 22.30                          | 22.53 | 22.63  | 24.00   |
| HSDPA          | Sub 1    | 16.30                         | 16.56 | 16.63  | 18.00   | 22.42                          | 22.64 | 22.78  | 24.00   |
|                | Sub 2    | 15.79                         | 16.05 | 16.12  | 17.50   | 21.81                          | 22.03 | 22.17  | 23.50   |
|                | Sub 3    | 15.28                         | 15.54 | 15.61  | 17.00   | 21.30                          | 21.52 | 21.66  | 23.00   |
|                | Sub 4    | 15.27                         | 15.53 | 15.60  | 17.00   | 21.29                          | 21.51 | 21.65  | 23.00   |
| HSUPA          | Sub 1    | 16.76                         | 17.02 | 17.09  | 18.00   | 22.38                          | 22.60 | 22.74  | 24.00   |
|                | Sub 2    | 16.15                         | 16.41 | 16.48  | 18.00   | 22.27                          | 22.49 | 22.63  | 24.00   |
|                | Sub 3    | 16.23                         | 16.50 | 16.57  | 18.00   | 22.45                          | 22.68 | 22.82  | 24.00   |
|                | Sub 4    | 16.12                         | 16.39 | 16.46  | 18.00   | 22.24                          | 22.47 | 22.61  | 24.00   |
|                | Sub 5    | 16.71                         | 16.98 | 17.05  | 18.00   | 22.33                          | 22.56 | 22.70  | 24.00   |
| DC-HSDPA       | Sub 1    | 16.52                         | 16.80 | 16.85  | 18.00   | 22.14                          | 22.38 | 22.50  | 24.00   |
|                | Sub 2    | 16.01                         | 16.29 | 16.34  | 17.50   | 21.53                          | 21.77 | 21.89  | 23.50   |
|                | Sub 3    | 15.09                         | 15.28 | 15.35  | 17.00   | 21.11                          | 21.26 | 21.40  | 23.00   |
|                | Sub 4    | 15.08                         | 15.27 | 15.34  | 17.00   | 21.10                          | 21.25 | 21.39  | 23.00   |

Note: 1.Per KDB 941225 D01, SAR for each exposure is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".

| WCDMA          |          | Band IV(dBm)<br>(Receiver on) |        |        |         | Band IV(dBm)<br>(Receiver off) |        |        |         |
|----------------|----------|-------------------------------|--------|--------|---------|--------------------------------|--------|--------|---------|
| Tx Channel     |          | 1312                          | 1413   | 1513   | Tune-up | 1312                           | 1413   | 1513   | Tune-up |
| Frequency(MHz) |          | 1712.4                        | 1732.6 | 1752.6 | Limit   | 1712.4                         | 1732.6 | 1752.6 | Limit   |
| RMC            | 12.2kbps | 15.30                         | 15.47  | 15.26  | 17.00   | 22.30                          | 22.40  | 22.13  | 24.00   |
| AMR            | 12.2kbps | 15.20                         | 15.38  | 15.13  | 17.00   | 22.20                          | 22.31  | 22.00  | 24.00   |
| HSDPA          | Sub 1    | 16.72                         | 16.89  | 16.68  | 18.50   | 23.72                          | 23.82  | 23.55  | 25.50   |
|                | Sub 2    | 16.71                         | 16.88  | 16.67  | 18.00   | 23.71                          | 23.81  | 23.54  | 25.00   |



|                                                                                                                            |       |       |       |       |       |       |       |       |       |
|----------------------------------------------------------------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                                                                                                                            | Sub 3 | 16.20 | 16.37 | 16.16 | 17.50 | 23.20 | 23.30 | 23.03 | 24.50 |
|                                                                                                                            | Sub 4 | 16.19 | 16.36 | 16.15 | 17.50 | 23.19 | 23.29 | 23.02 | 24.50 |
| HSUPA                                                                                                                      | Sub 1 | 16.68 | 16.85 | 16.64 | 17.00 | 23.68 | 23.78 | 23.51 | 24.00 |
|                                                                                                                            | Sub 2 | 15.67 | 15.84 | 15.63 | 17.00 | 22.67 | 22.77 | 22.50 | 24.00 |
|                                                                                                                            | Sub 3 | 16.15 | 16.33 | 16.12 | 17.00 | 23.15 | 23.26 | 22.99 | 24.00 |
|                                                                                                                            | Sub 4 | 15.64 | 15.82 | 15.61 | 17.00 | 22.64 | 22.75 | 22.48 | 24.00 |
|                                                                                                                            | Sub 5 | 16.63 | 16.81 | 16.60 | 17.00 | 23.63 | 23.74 | 23.47 | 24.00 |
| DC-HSDPA                                                                                                                   | Sub 1 | 16.94 | 17.13 | 16.90 | 18.50 | 23.74 | 23.86 | 23.57 | 25.50 |
|                                                                                                                            | Sub 2 | 16.43 | 16.62 | 16.39 | 18.00 | 23.43 | 23.55 | 23.26 | 25.00 |
|                                                                                                                            | Sub 3 | 16.01 | 16.11 | 15.90 | 17.50 | 23.01 | 23.04 | 22.77 | 24.50 |
|                                                                                                                            | Sub 4 | 16.00 | 16.10 | 15.89 | 17.50 | 23.00 | 23.03 | 22.76 | 24.50 |
| Note: 1.Per KDB 941225 D01, SAR for each exposure is measured using a 12.2 kbps RMC with TPC bits configured to all "1's". |       |       |       |       |       |       |       |       |       |

| WCDMA                                                                                                                      |          | Band V(dBm)<br>(Receiver on) |       |       |         | Band V(dBm)<br>(Receiver off) |       |       |         |
|----------------------------------------------------------------------------------------------------------------------------|----------|------------------------------|-------|-------|---------|-------------------------------|-------|-------|---------|
| Tx Channel                                                                                                                 |          | 4132                         | 4183  | 4233  | Tune-up | 4132                          | 4183  | 4233  | Tune-up |
| Frequency(MHz)                                                                                                             |          | 826.4                        | 836.6 | 846.6 | Limit   | 826.4                         | 836.6 | 846.6 | Limit   |
| RMC                                                                                                                        | 12.2kbps | 17.52                        | 17.57 | 17.47 | 19.00   | 23.47                         | 23.54 | 23.51 | 25.00   |
| AMR                                                                                                                        | 12.2kbps | 17.42                        | 17.48 | 17.34 | 19.00   | 23.07                         | 23.15 | 23.08 | 25.00   |
| HSDPA                                                                                                                      | Sub 1    | 17.94                        | 17.99 | 17.89 | 19.00   | 23.14                         | 23.21 | 23.18 | 25.00   |
|                                                                                                                            | Sub 2    | 17.93                        | 17.98 | 17.88 | 18.50   | 22.92                         | 22.99 | 22.96 | 24.50   |
|                                                                                                                            | Sub 3    | 17.42                        | 17.47 | 17.37 | 18.00   | 22.90                         | 22.97 | 22.94 | 24.00   |
|                                                                                                                            | Sub 4    | 17.41                        | 17.46 | 17.36 | 18.00   | 22.88                         | 22.95 | 22.92 | 24.00   |
| HSUPA                                                                                                                      | Sub 1    | 17.90                        | 17.95 | 17.85 | 19.00   | 23.86                         | 23.93 | 23.90 | 25.00   |
|                                                                                                                            | Sub 2    | 17.19                        | 17.24 | 17.14 | 19.00   | 23.14                         | 23.21 | 23.18 | 25.00   |
|                                                                                                                            | Sub 3    | 17.37                        | 17.43 | 17.33 | 19.00   | 23.31                         | 23.39 | 23.36 | 25.00   |
|                                                                                                                            | Sub 4    | 17.16                        | 17.22 | 17.12 | 19.00   | 23.09                         | 23.17 | 23.14 | 25.00   |
|                                                                                                                            | Sub 5    | 17.85                        | 17.91 | 17.81 | 19.00   | 23.77                         | 23.85 | 23.82 | 25.00   |
| DC-HSDPA                                                                                                                   | Sub 1    | 17.66                        | 17.73 | 17.61 | 19.00   | 23.08                         | 23.17 | 23.12 | 25.00   |
|                                                                                                                            | Sub 2    | 17.65                        | 17.72 | 17.60 | 18.50   | 22.56                         | 22.65 | 22.60 | 24.50   |
|                                                                                                                            | Sub 3    | 17.23                        | 17.21 | 17.11 | 18.00   | 22.65                         | 22.65 | 22.62 | 24.00   |
|                                                                                                                            | Sub 4    | 17.22                        | 17.20 | 17.10 | 18.00   | 22.63                         | 22.63 | 22.60 | 24.00   |
| Note: 1.Per KDB 941225 D01, SAR for each exposure is measured using a 12.2 kbps RMC with TPC bits configured to all "1's". |          |                              |       |       |         |                               |       |       |         |

### 9.3 LTE Mode

#### 9.3.1 LTE Single Carrier

UE Power Class: 3 (23 +/- 2dBm). The allowed Maximum Power Reduction (MPR) for the maximum output power due to higher order modulation and transmit bandwidth configuration (resource blocks) is specified in Table 6.2.3-1 of the 3GPP TS36.101.

**Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 3**

| Modulation | Channel bandwidth / Transmission bandwidth (N <sub>RB</sub> ) |         |       |        |        |        | MPR (dB) |
|------------|---------------------------------------------------------------|---------|-------|--------|--------|--------|----------|
|            | 1.4 MHz                                                       | 3.0 MHz | 5 MHz | 10 MHz | 15 MHz | 20 MHz |          |
| QPSK       | > 5                                                           | > 4     | > 8   | > 12   | > 16   | > 18   | ≤ 1      |
| 16 QAM     | ≤ 5                                                           | ≤ 4     | ≤ 8   | ≤ 12   | ≤ 16   | ≤ 18   | ≤ 1      |
| 16 QAM     | > 5                                                           | > 4     | > 8   | > 12   | > 16   | > 18   | ≤ 2      |
| 64 QAM     | ≤ 5                                                           | ≤ 4     | ≤ 8   | ≤ 12   | ≤ 16   | ≤ 18   | ≤ 2      |
| 64 QAM     | > 5                                                           | > 4     | > 8   | > 12   | > 16   | > 18   | ≤ 3      |

#### Main-Antenna

| LTE FDD Band 2<br>(Receiver on)<br>(Receiver off+SAR sensor on Level D3)<br>(Receiver off+SAR sensor on Level D7)<br>(Sensor off+Hotspot off) |            |         |           | Conducted Power(dBm)    |            |              | Tune-up<br>Limit |
|-----------------------------------------------------------------------------------------------------------------------------------------------|------------|---------|-----------|-------------------------|------------|--------------|------------------|
| Bandwidth                                                                                                                                     | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              |                  |
|                                                                                                                                               |            |         |           | 18607/1850.7            | 18900/1880 | 19193/1909.3 |                  |
| 1.4MHz                                                                                                                                        | QPSK       | 1       | 0         | 22.86                   | 23.23      | 23.18        | 24.00            |
|                                                                                                                                               |            | 1       | 2         | 22.77                   | 22.86      | 22.67        | 24.00            |
|                                                                                                                                               |            | 1       | 5         | 23.04                   | 22.93      | 22.95        | 24.00            |
|                                                                                                                                               |            | 3       | 0         | 22.78                   | 22.56      | 22.63        | 24.00            |
|                                                                                                                                               |            | 3       | 2         | 22.60                   | 22.40      | 22.52        | 24.00            |
|                                                                                                                                               |            | 3       | 3         | 22.48                   | 22.52      | 22.49        | 24.00            |
|                                                                                                                                               |            | 6       | 0         | 21.69                   | 21.78      | 21.83        | 23.00            |
|                                                                                                                                               | 16QAM      | 1       | 0         | 22.18                   | 22.21      | 22.67        | 23.00            |
|                                                                                                                                               |            | 1       | 2         | 22.19                   | 22.35      | 22.12        | 23.00            |
|                                                                                                                                               |            | 1       | 5         | 22.20                   | 22.11      | 22.30        | 23.00            |
|                                                                                                                                               |            | 3       | 0         | 21.79                   | 21.70      | 21.67        | 23.00            |
|                                                                                                                                               |            | 3       | 2         | 21.73                   | 21.64      | 21.57        | 23.00            |
|                                                                                                                                               |            | 3       | 3         | 21.02                   | 20.87      | 21.48        | 23.00            |
|                                                                                                                                               |            | 6       | 0         | 20.89                   | 20.79      | 20.77        | 22.00            |
|                                                                                                                                               | 64QAM      | 1       | 0         | 21.26                   | 21.10      | 21.38        | 22.00            |
|                                                                                                                                               |            | 1       | 2         | 21.06                   | 21.09      | 21.13        | 22.00            |
|                                                                                                                                               |            | 1       | 5         | 21.35                   | 21.18      | 21.26        | 22.00            |
|                                                                                                                                               |            | 3       | 0         | 21.23                   | 21.22      | 21.09        | 22.00            |
|                                                                                                                                               |            | 3       | 2         | 21.08                   | 21.36      | 21.14        | 22.00            |
|                                                                                                                                               |            | 3       | 3         | 20.98                   | 21.05      | 20.86        | 22.00            |

|           |            | 6       | 0         | 20.12                   | 20.23      | 20.20        | 21.00         |
|-----------|------------|---------|-----------|-------------------------|------------|--------------|---------------|
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 18615/1851.5            | 18900/1880 | 19185/1908.5 |               |
| 3MHz      | QPSK       | 1       | 0         | 22.88                   | 23.27      | 23.21        | 24.00         |
|           |            | 1       | 7         | 22.77                   | 22.88      | 22.71        | 24.00         |
|           |            | 1       | 14        | 23.07                   | 22.98      | 22.99        | 24.00         |
|           |            | 8       | 0         | 21.79                   | 22.10      | 21.94        | 23.00         |
|           |            | 8       | 4         | 21.68                   | 21.87      | 21.85        | 23.00         |
|           |            | 8       | 7         | 21.86                   | 21.81      | 21.97        | 23.00         |
|           |            | 15      | 0         | 21.71                   | 21.82      | 21.86        | 23.00         |
|           | 16QAM      | 1       | 0         | 22.21                   | 22.23      | 22.70        | 23.00         |
|           |            | 1       | 7         | 22.22                   | 22.37      | 22.16        | 23.00         |
|           |            | 1       | 14        | 22.22                   | 22.15      | 22.33        | 23.00         |
|           |            | 8       | 0         | 21.84                   | 21.74      | 21.70        | 22.00         |
|           |            | 8       | 4         | 21.78                   | 21.71      | 21.63        | 22.00         |
|           |            | 8       | 7         | 21.06                   | 20.93      | 21.55        | 22.00         |
|           |            | 15      | 0         | 20.92                   | 20.83      | 20.80        | 22.00         |
|           | 64QAM      | 1       | 0         | 21.29                   | 21.12      | 21.41        | 22.00         |
|           |            | 1       | 7         | 21.09                   | 21.11      | 21.17        | 22.00         |
|           |            | 1       | 14        | 21.37                   | 21.22      | 21.29        | 22.00         |
|           |            | 8       | 0         | 20.03                   | 20.11      | 20.06        | 21.00         |
|           |            | 8       | 4         | 19.96                   | 20.00      | 20.04        | 21.00         |
|           |            | 8       | 7         | 19.75                   | 19.72      | 19.62        | 21.00         |
|           |            | 15      | 0         | 19.91                   | 19.99      | 20.02        | 21.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 18625/1852.5            | 18900/1880 | 19175/1907.5 |               |
| 5MHz      | QPSK       | 1       | 0         | 22.85                   | 23.25      | 23.17        | 24.00         |
|           |            | 1       | 13        | 22.75                   | 22.84      | 22.68        | 24.00         |
|           |            | 1       | 24        | 23.04                   | 22.93      | 22.95        | 24.00         |
|           |            | 12      | 0         | 21.76                   | 22.05      | 21.90        | 23.00         |
|           |            | 12      | 6         | 21.66                   | 21.83      | 21.80        | 23.00         |
|           |            | 12      | 13        | 21.84                   | 21.79      | 21.93        | 23.00         |
|           |            | 25      | 0         | 21.69                   | 21.81      | 21.84        | 23.00         |
|           | 16QAM      | 1       | 0         | 22.18                   | 22.19      | 22.67        | 23.00         |
|           |            | 1       | 13        | 22.19                   | 22.35      | 22.13        | 23.00         |
|           |            | 1       | 24        | 22.19                   | 22.13      | 22.29        | 23.00         |
|           |            | 12      | 0         | 21.82                   | 21.70      | 21.67        | 22.00         |
|           |            | 12      | 6         | 21.75                   | 21.66      | 21.59        | 22.00         |
|           |            | 12      | 13        | 21.03                   | 20.88      | 21.51        | 22.00         |
|           |            | 25      | 0         | 20.90                   | 20.79      | 20.75        | 22.00         |
|           | 64QAM      | 1       | 0         | 21.26                   | 21.08      | 21.38        | 22.00         |
|           |            | 1       | 13        | 21.06                   | 21.09      | 21.14        | 22.00         |
|           |            | 1       | 24        | 21.34                   | 21.20      | 21.25        | 22.00         |

|           |            | 12      | 0         | 20.01                   | 20.07      | 20.03        | 21.00         |
|-----------|------------|---------|-----------|-------------------------|------------|--------------|---------------|
|           |            | 12      | 6         | 19.93                   | 19.95      | 20.00        | 21.00         |
|           |            | 12      | 13        | 19.72                   | 19.67      | 19.58        | 21.00         |
|           |            | 25      | 0         | 19.89                   | 19.95      | 19.97        | 21.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 18650/1855              | 18900/1880 | 19150/1905   |               |
| 10MHz     | QPSK       | 1       | 0         | 22.86                   | 23.24      | 23.19        | 24.00         |
|           |            | 1       | 25        | 22.76                   | 22.88      | 22.70        | 24.00         |
|           |            | 1       | 49        | 23.05                   | 22.95      | 22.97        | 24.00         |
|           |            | 25      | 0         | 21.77                   | 22.09      | 21.92        | 23.00         |
|           |            | 25      | 13        | 21.68                   | 21.86      | 21.83        | 23.00         |
|           |            | 25      | 25        | 21.84                   | 21.79      | 21.97        | 23.00         |
|           |            | 50      | 0         | 21.69                   | 21.82      | 21.85        | 23.00         |
|           | 16QAM      | 1       | 0         | 22.17                   | 22.17      | 22.67        | 23.00         |
|           |            | 1       | 25        | 22.21                   | 22.38      | 22.11        | 23.00         |
|           |            | 1       | 49        | 22.20                   | 22.11      | 22.31        | 23.00         |
|           |            | 25      | 0         | 21.80                   | 21.74      | 21.68        | 22.00         |
|           |            | 25      | 13        | 21.74                   | 21.65      | 21.60        | 22.00         |
|           |            | 25      | 25        | 21.05                   | 20.92      | 21.50        | 22.00         |
|           |            | 50      | 0         | 20.89                   | 20.81      | 20.75        | 22.00         |
|           | 64QAM      | 1       | 0         | 21.26                   | 21.07      | 21.39        | 22.00         |
|           |            | 1       | 25        | 21.08                   | 21.11      | 21.14        | 22.00         |
|           |            | 1       | 49        | 21.34                   | 21.17      | 21.26        | 22.00         |
|           |            | 25      | 0         | 20.03                   | 20.11      | 20.02        | 21.00         |
|           |            | 25      | 13        | 19.91                   | 19.96      | 19.99        | 21.00         |
|           |            | 25      | 25        | 19.73                   | 19.68      | 19.61        | 21.00         |
|           |            | 50      | 0         | 19.91                   | 19.98      | 19.98        | 21.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 18675/1857.5            | 18900/1880 | 19125/1902.5 |               |
| 15MHz     | QPSK       | 1       | 0         | 22.86                   | 23.22      | 23.18        | 24.00         |
|           |            | 1       | 38        | 22.76                   | 22.88      | 22.69        | 24.00         |
|           |            | 1       | 74        | 23.03                   | 22.92      | 22.94        | 24.00         |
|           |            | 36      | 0         | 21.77                   | 22.06      | 21.91        | 23.00         |
|           |            | 36      | 18        | 21.66                   | 21.83      | 21.80        | 23.00         |
|           |            | 36      | 39        | 21.83                   | 21.80      | 21.94        | 23.00         |
|           |            | 75      | 0         | 21.72                   | 21.79      | 21.83        | 23.00         |
|           | 16QAM      | 1       | 0         | 22.15                   | 22.20      | 22.67        | 23.00         |
|           |            | 1       | 38        | 22.20                   | 22.36      | 22.14        | 23.00         |
|           |            | 1       | 74        | 22.19                   | 22.11      | 22.29        | 23.00         |
|           |            | 36      | 0         | 21.82                   | 21.73      | 21.68        | 22.00         |
|           |            | 36      | 18        | 21.74                   | 21.65      | 21.58        | 22.00         |
|           |            | 36      | 39        | 21.04                   | 20.89      | 21.52        | 22.00         |
|           |            | 75      | 0         | 20.90                   | 20.79      | 20.75        | 22.00         |

|           | 64QAM      | 1       | 0         | 21.23                   | 21.09      | 21.38      | 22.00         |
|-----------|------------|---------|-----------|-------------------------|------------|------------|---------------|
|           |            | 1       | 38        | 21.07                   | 21.10      | 21.15      | 22.00         |
|           |            | 1       | 74        | 21.34                   | 21.18      | 21.25      | 22.00         |
|           |            | 36      | 0         | 20.01                   | 20.10      | 20.04      | 21.00         |
|           |            | 36      | 18        | 19.92                   | 19.94      | 19.99      | 21.00         |
|           |            | 36      | 39        | 19.73                   | 19.68      | 19.59      | 21.00         |
|           |            | 75      | 0         | 19.89                   | 19.95      | 19.97      | 21.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |            | Tune-up Limit |
|           |            |         |           | 18700/1860              | 18900/1880 | 19100/1900 |               |
| 20MHz     | QPSK       | 1       | 0         | 22.83                   | 23.18      | 23.15      | 24.00         |
|           |            | 1       | 50        | 22.75                   | 22.84      | 22.67      | 24.00         |
|           |            | 1       | 99        | 23.01                   | 22.91      | 22.91      | 24.00         |
|           |            | 50      | 0         | 21.74                   | 22.01      | 21.87      | 23.00         |
|           |            | 50      | 25        | 21.64                   | 21.79      | 21.77      | 23.00         |
|           |            | 50      | 50        | 21.80                   | 21.75      | 21.90      | 23.00         |
|           |            | 100     | 0         | 21.69                   | 21.74      | 21.79      | 23.00         |
|           | 16QAM      | 1       | 0         | 22.13                   | 22.16      | 22.62      | 23.00         |
|           |            | 1       | 50        | 22.16                   | 22.34      | 22.10      | 23.00         |
|           |            | 1       | 99        | 22.17                   | 22.08      | 22.27      | 23.00         |
|           |            | 50      | 0         | 21.79                   | 21.69      | 21.65      | 22.00         |
|           |            | 50      | 25        | 21.71                   | 21.63      | 21.55      | 22.00         |
|           |            | 50      | 50        | 21.01                   | 20.84      | 21.48      | 22.00         |
|           |            | 100     | 0         | 20.88                   | 20.75      | 20.72      | 22.00         |
|           | 64QAM      | 1       | 0         | 21.21                   | 21.05      | 21.33      | 22.00         |
|           |            | 1       | 50        | 21.03                   | 21.08      | 21.11      | 22.00         |
|           |            | 1       | 99        | 21.32                   | 21.15      | 21.23      | 22.00         |
|           |            | 50      | 0         | 19.98                   | 20.06      | 20.01      | 21.00         |
|           |            | 50      | 25        | 19.89                   | 19.92      | 19.96      | 21.00         |
|           |            | 50      | 50        | 19.70                   | 19.63      | 19.55      | 21.00         |
|           |            | 100     | 0         | 19.87                   | 19.91      | 19.94      | 21.00         |

| LTE FDD Band 2<br>(Hotspot on+Receiver on)<br>(Hotspot on+Receiver off+SAR sensor on Level D3)<br>(Hotspot on+Receiver off+SAR sensor on Level D7)<br>(sensor off+hotspot on) |            |         |           | Conducted Power(dBm)    |            |              | Tune-up<br>Limit |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------|-----------|-------------------------|------------|--------------|------------------|
| Bandwidth                                                                                                                                                                     | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              |                  |
|                                                                                                                                                                               |            |         |           | 18607/1850.7            | 18900/1880 | 19193/1909.3 |                  |
| 1.4MHz                                                                                                                                                                        | QPSK       | 1       | 0         | 20.65                   | 20.68      | 20.58        | 21.50            |
|                                                                                                                                                                               |            | 1       | 2         | 20.45                   | 20.58      | 20.40        | 21.50            |
|                                                                                                                                                                               |            | 1       | 5         | 20.47                   | 20.53      | 20.53        | 21.50            |
|                                                                                                                                                                               |            | 3       | 0         | 20.59                   | 20.46      | 20.55        | 21.50            |
|                                                                                                                                                                               |            | 3       | 2         | 20.54                   | 20.50      | 20.45        | 21.50            |

|           |            | 3       | 3         | 20.32                   | 20.61      | 20.44        | 21.50         |
|-----------|------------|---------|-----------|-------------------------|------------|--------------|---------------|
|           |            | 6       | 0         | 20.47                   | 20.60      | 20.48        | 21.50         |
|           | 16QAM      | 1       | 0         | 21.00                   | 21.13      | 20.44        | 21.50         |
|           |            | 1       | 2         | 21.03                   | 20.85      | 21.00        | 21.50         |
|           |            | 1       | 5         | 20.89                   | 20.84      | 20.31        | 21.50         |
|           |            | 3       | 0         | 20.45                   | 20.36      | 20.46        | 21.50         |
|           |            | 3       | 2         | 20.39                   | 20.38      | 20.40        | 21.50         |
|           |            | 3       | 3         | 20.33                   | 20.41      | 20.36        | 21.50         |
|           |            | 6       | 0         | 20.53                   | 20.46      | 20.40        | 21.50         |
|           | 64QAM      | 1       | 0         | 20.68                   | 20.61      | 20.60        | 21.50         |
|           |            | 1       | 2         | 20.63                   | 20.32      | 20.44        | 21.50         |
|           |            | 1       | 5         | 20.51                   | 20.45      | 20.39        | 21.50         |
|           |            | 3       | 0         | 20.12                   | 20.11      | 20.05        | 21.50         |
|           |            | 3       | 2         | 20.17                   | 20.23      | 20.12        | 21.50         |
|           |            | 3       | 3         | 20.05                   | 20.12      | 19.96        | 21.50         |
|           |            | 6       | 0         | 19.88                   | 19.96      | 20.06        | 21.50         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 18615/1851.5            | 18900/1880 | 19185/1908.5 |               |
| 3MHz      | QPSK       | 1       | 0         | 20.67                   | 20.72      | 20.61        | 21.50         |
|           |            | 1       | 7         | 20.45                   | 20.60      | 20.44        | 21.50         |
|           |            | 1       | 14        | 20.50                   | 20.58      | 20.57        | 21.50         |
|           |            | 8       | 0         | 20.63                   | 20.53      | 20.62        | 21.50         |
|           |            | 8       | 4         | 20.57                   | 20.58      | 20.51        | 21.50         |
|           |            | 8       | 7         | 20.36                   | 20.66      | 20.48        | 21.50         |
|           |            | 15      | 0         | 20.49                   | 20.64      | 20.51        | 21.50         |
|           | 16QAM      | 1       | 0         | 21.03                   | 21.15      | 20.47        | 21.50         |
|           |            | 1       | 7         | 21.06                   | 20.87      | 21.04        | 21.50         |
|           |            | 1       | 14        | 20.91                   | 20.88      | 20.34        | 21.50         |
|           |            | 8       | 0         | 20.50                   | 20.40      | 20.49        | 21.50         |
|           |            | 8       | 4         | 20.44                   | 20.45      | 20.46        | 21.50         |
|           |            | 8       | 7         | 20.37                   | 20.47      | 20.43        | 21.50         |
|           |            | 15      | 0         | 20.56                   | 20.50      | 20.43        | 21.50         |
|           | 64QAM      | 1       | 0         | 20.71                   | 20.63      | 20.63        | 21.50         |
|           |            | 1       | 7         | 20.66                   | 20.34      | 20.48        | 21.50         |
|           |            | 1       | 14        | 20.53                   | 20.49      | 20.42        | 21.50         |
|           |            | 8       | 0         | 20.17                   | 20.15      | 20.08        | 21.50         |
|           |            | 8       | 4         | 20.22                   | 20.30      | 20.18        | 21.50         |
|           |            | 8       | 7         | 20.09                   | 20.18      | 20.03        | 21.50         |
|           |            | 15      | 0         | 19.90                   | 20.02      | 20.11        | 21.50         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 18625/1852.5            | 18900/1880 | 19175/1907.5 |               |
| 5MHz      | QPSK       | 1       | 0         | 20.64                   | 20.70      | 20.57        | 21.50         |
|           |            | 1       | 13        | 20.43                   | 20.56      | 20.41        | 21.50         |

|           |            | 1       | 24        | 20.47                   | 20.53      | 20.53      | 21.50         |
|-----------|------------|---------|-----------|-------------------------|------------|------------|---------------|
|           |            | 12      | 0         | 20.60                   | 20.48      | 20.58      | 21.50         |
|           |            | 12      | 6         | 20.55                   | 20.54      | 20.46      | 21.50         |
|           |            | 12      | 13        | 20.34                   | 20.64      | 20.44      | 21.50         |
|           |            | 25      | 0         | 20.47                   | 20.63      | 20.49      | 21.50         |
|           | 16QAM      | 1       | 0         | 21.00                   | 21.11      | 20.44      | 21.50         |
|           |            | 1       | 13        | 21.03                   | 20.85      | 21.01      | 21.50         |
|           |            | 1       | 24        | 20.88                   | 20.86      | 20.30      | 21.50         |
|           |            | 12      | 0         | 20.48                   | 20.36      | 20.46      | 21.50         |
|           |            | 12      | 6         | 20.41                   | 20.40      | 20.42      | 21.50         |
|           |            | 12      | 13        | 20.34                   | 20.42      | 20.39      | 21.50         |
|           |            | 25      | 0         | 20.54                   | 20.46      | 20.38      | 21.50         |
|           | 64QAM      | 1       | 0         | 20.68                   | 20.59      | 20.60      | 21.50         |
|           |            | 1       | 13        | 20.63                   | 20.32      | 20.45      | 21.50         |
|           |            | 1       | 24        | 20.50                   | 20.47      | 20.38      | 21.50         |
|           |            | 12      | 0         | 20.15                   | 20.11      | 20.05      | 21.50         |
|           |            | 12      | 6         | 20.19                   | 20.25      | 20.14      | 21.50         |
|           |            | 12      | 13        | 20.06                   | 20.13      | 19.99      | 21.50         |
|           |            | 25      | 0         | 19.88                   | 19.98      | 20.06      | 21.50         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |            | Tune-up Limit |
|           |            |         |           | 18650/1855              | 18900/1880 | 19150/1905 |               |
| 10MHz     | QPSK       | 1       | 0         | 20.05                   | 20.36      | 20.14      | 21.50         |
|           |            | 1       | 25        | 20.30                   | 20.38      | 20.29      | 21.50         |
|           |            | 1       | 49        | 20.23                   | 20.27      | 20.22      | 21.50         |
|           |            | 25      | 0         | 20.11                   | 20.10      | 20.12      | 21.50         |
|           |            | 25      | 13        | 20.15                   | 20.22      | 20.18      | 21.50         |
|           |            | 25      | 25        | 20.07                   | 20.17      | 20.30      | 21.50         |
|           |            | 50      | 0         | 20.10                   | 20.16      | 20.13      | 21.50         |
|           | 16QAM      | 1       | 0         | 20.42                   | 20.73      | 20.45      | 21.50         |
|           |            | 1       | 25        | 20.51                   | 20.68      | 20.57      | 21.50         |
|           |            | 1       | 49        | 20.62                   | 20.65      | 20.53      | 21.50         |
|           |            | 25      | 0         | 20.13                   | 20.19      | 20.21      | 21.50         |
|           |            | 25      | 13        | 20.23                   | 20.16      | 20.08      | 21.50         |
|           |            | 25      | 25        | 20.05                   | 20.08      | 20.16      | 21.50         |
|           |            | 50      | 0         | 20.15                   | 20.07      | 20.11      | 21.50         |
|           | 64QAM      | 1       | 0         | 20.12                   | 20.03      | 20.10      | 21.50         |
|           |            | 1       | 25        | 20.00                   | 20.05      | 20.16      | 21.50         |
|           |            | 1       | 49        | 20.18                   | 20.01      | 20.20      | 21.50         |
|           |            | 25      | 0         | 19.98                   | 20.03      | 20.13      | 21.50         |
|           |            | 25      | 13        | 20.02                   | 20.06      | 20.11      | 21.50         |
|           |            | 25      | 25        | 20.07                   | 20.10      | 20.21      | 21.50         |
|           |            | 50      | 0         | 20.15                   | 20.16      | 20.19      | 21.50         |



| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|-----------|------------|---------|-----------|-------------------------|------------|--------------|---------------|
|           |            |         |           | 18675/1857.5            | 18900/1880 | 19125/1902.5 |               |
| 15MHz     | QPSK       | 1       | 0         | 20.65                   | 20.67      | 20.58        | 21.50         |
|           |            | 1       | 38        | 20.44                   | 20.60      | 20.42        | 21.50         |
|           |            | 1       | 74        | 20.46                   | 20.52      | 20.52        | 21.50         |
|           |            | 36      | 0         | 20.61                   | 20.49      | 20.59        | 21.50         |
|           |            | 36      | 18        | 20.55                   | 20.54      | 20.46        | 21.50         |
|           |            | 36      | 39        | 20.33                   | 20.65      | 20.45        | 21.50         |
|           |            | 75      | 0         | 20.50                   | 20.61      | 20.48        | 21.50         |
|           | 16QAM      | 1       | 0         | 20.97                   | 21.12      | 20.44        | 21.50         |
|           |            | 1       | 38        | 21.04                   | 20.86      | 21.02        | 21.50         |
|           |            | 1       | 74        | 20.88                   | 20.84      | 20.30        | 21.50         |
|           |            | 36      | 0         | 20.48                   | 20.39      | 20.47        | 21.50         |
|           |            | 36      | 18        | 20.40                   | 20.39      | 20.41        | 21.50         |
|           |            | 36      | 39        | 20.35                   | 20.43      | 20.40        | 21.50         |
|           |            | 75      | 0         | 20.54                   | 20.46      | 20.38        | 21.50         |
|           | 64QAM      | 1       | 0         | 20.65                   | 20.60      | 20.60        | 21.50         |
|           |            | 1       | 38        | 20.64                   | 20.33      | 20.46        | 21.50         |
|           |            | 1       | 74        | 20.50                   | 20.45      | 20.38        | 21.50         |
|           |            | 36      | 0         | 20.15                   | 20.14      | 20.06        | 21.50         |
|           |            | 36      | 18        | 20.18                   | 20.24      | 20.13        | 21.50         |
|           |            | 36      | 39        | 20.07                   | 20.14      | 20.00        | 21.50         |
|           |            | 75      | 0         | 19.88                   | 19.98      | 20.06        | 21.50         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 18700/1860              | 18900/1880 | 19100/1900   |               |
| 20MHz     | QPSK       | 1       | 0         | 20.62                   | 20.63      | 20.55        | 21.50         |
|           |            | 1       | 50        | 20.43                   | 20.56      | 20.40        | 21.50         |
|           |            | 1       | 99        | 20.44                   | 20.51      | 20.49        | 21.50         |
|           |            | 50      | 0         | 20.58                   | 20.44      | 20.55        | 21.50         |
|           |            | 50      | 25        | 20.53                   | 20.50      | 20.43        | 21.50         |
|           |            | 50      | 50        | 20.30                   | 20.60      | 20.41        | 21.50         |
|           |            | 100     | 0         | 20.47                   | 20.56      | 20.44        | 21.50         |
|           | 16QAM      | 1       | 0         | 20.95                   | 21.08      | 20.39        | 21.50         |
|           |            | 1       | 50        | 21.00                   | 20.84      | 20.98        | 21.50         |
|           |            | 1       | 99        | 20.86                   | 20.81      | 20.28        | 21.50         |
|           |            | 50      | 0         | 20.45                   | 20.35      | 20.44        | 21.50         |
|           |            | 50      | 25        | 20.37                   | 20.37      | 20.38        | 21.50         |
|           |            | 50      | 50        | 20.32                   | 20.38      | 20.36        | 21.50         |
|           |            | 100     | 0         | 20.52                   | 20.42      | 20.35        | 21.50         |
|           | 64QAM      | 1       | 0         | 20.63                   | 20.56      | 20.55        | 21.50         |
|           |            | 1       | 50        | 20.60                   | 20.31      | 20.42        | 21.50         |
|           |            | 1       | 99        | 20.48                   | 20.42      | 20.36        | 21.50         |
|           |            | 50      | 0         | 20.12                   | 20.10      | 20.03        | 21.50         |

|  |  |     |    |       |       |       |       |
|--|--|-----|----|-------|-------|-------|-------|
|  |  | 50  | 25 | 20.15 | 20.22 | 20.10 | 21.50 |
|  |  | 50  | 50 | 20.04 | 20.09 | 19.96 | 21.50 |
|  |  | 100 | 0  | 19.86 | 19.94 | 20.03 | 21.50 |

| LTE FDD Band 2<br>(Receiver off+SAR sensor on Level D1&D2) |            |         |           | Conducted Power(dBm)    |            |              | Tune-up<br>Limit |
|------------------------------------------------------------|------------|---------|-----------|-------------------------|------------|--------------|------------------|
| Bandwidth                                                  | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              |                  |
|                                                            |            |         |           | 18607/1850.7            | 18900/1880 | 19193/1909.3 |                  |
| 1.4MHz                                                     | QPSK       | 1       | 0         | 23.00                   | 22.98      | 22.89        | 23.50            |
|                                                            |            | 1       | 2         | 22.89                   | 22.97      | 22.79        | 23.50            |
|                                                            |            | 1       | 5         | 22.93                   | 22.86      | 22.75        | 23.50            |
|                                                            |            | 3       | 0         | 21.94                   | 22.04      | 21.89        | 23.50            |
|                                                            |            | 3       | 2         | 21.81                   | 21.84      | 21.82        | 23.50            |
|                                                            |            | 3       | 3         | 21.85                   | 21.75      | 21.85        | 23.50            |
|                                                            |            | 6       | 0         | 21.94                   | 21.84      | 21.81        | 23.00            |
|                                                            | 16QAM      | 1       | 0         | 22.25                   | 22.00      | 21.98        | 23.00            |
|                                                            |            | 1       | 2         | 22.16                   | 21.98      | 21.96        | 23.00            |
|                                                            |            | 1       | 5         | 22.12                   | 22.07      | 22.05        | 23.00            |
|                                                            |            | 3       | 0         | 21.11                   | 21.09      | 21.19        | 23.00            |
|                                                            |            | 3       | 2         | 21.60                   | 21.78      | 21.68        | 23.00            |
|                                                            |            | 3       | 3         | 21.84                   | 21.83      | 21.81        | 23.00            |
|                                                            |            | 6       | 0         | 20.87                   | 20.87      | 20.80        | 22.00            |
|                                                            | 64QAM      | 1       | 0         | 21.73                   | 21.28      | 21.97        | 22.00            |
|                                                            |            | 1       | 2         | 21.61                   | 21.53      | 21.90        | 22.00            |
|                                                            |            | 1       | 5         | 21.70                   | 21.81      | 21.79        | 22.00            |
|                                                            |            | 3       | 0         | 20.93                   | 20.79      | 20.85        | 22.00            |
|                                                            |            | 3       | 2         | 20.78                   | 20.84      | 20.74        | 22.00            |
|                                                            |            | 3       | 3         | 20.93                   | 20.72      | 20.77        | 22.00            |
|                                                            |            | 6       | 0         | 20.76                   | 20.84      | 20.69        | 21.00            |
| Bandwidth                                                  | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up<br>Limit |
|                                                            |            |         |           | 18615/1851.5            | 18900/1880 | 19185/1908.5 |                  |
| 3MHz                                                       | QPSK       | 1       | 0         | 23.02                   | 23.02      | 22.92        | 23.50            |
|                                                            |            | 1       | 7         | 22.89                   | 22.99      | 22.83        | 23.50            |
|                                                            |            | 1       | 14        | 22.96                   | 22.91      | 22.79        | 23.50            |
|                                                            |            | 8       | 0         | 21.98                   | 22.11      | 21.96        | 23.00            |
|                                                            |            | 8       | 4         | 21.84                   | 21.92      | 21.88        | 23.00            |
|                                                            |            | 8       | 7         | 21.89                   | 21.80      | 21.89        | 23.00            |
|                                                            |            | 15      | 0         | 21.96                   | 21.88      | 21.84        | 23.00            |
|                                                            | 16QAM      | 1       | 0         | 22.28                   | 22.02      | 22.01        | 23.00            |
|                                                            |            | 1       | 7         | 22.19                   | 22.00      | 22.00        | 23.00            |
|                                                            |            | 1       | 14        | 22.14                   | 22.11      | 22.08        | 23.00            |
|                                                            |            | 8       | 0         | 20.95                   | 20.78      | 20.91        | 22.00            |
|                                                            |            | 8       | 4         | 20.75                   | 20.95      | 20.84        | 22.00            |

|           |            | 8       | 7         | 20.98                   | 20.99      | 20.98        | 22.00         |
|-----------|------------|---------|-----------|-------------------------|------------|--------------|---------------|
|           |            | 15      | 0         | 20.90                   | 20.91      | 20.83        | 22.00         |
|           | 64QAM      | 1       | 0         | 21.76                   | 21.30      | 22.00        | 22.00         |
|           |            | 1       | 7         | 21.64                   | 21.55      | 21.94        | 22.00         |
|           |            | 1       | 14        | 21.72                   | 21.85      | 21.82        | 22.00         |
|           |            | 8       | 0         | 20.98                   | 20.83      | 20.88        | 21.00         |
|           |            | 8       | 4         | 20.83                   | 20.91      | 20.80        | 21.00         |
|           |            | 8       | 7         | 20.97                   | 20.78      | 20.84        | 21.00         |
|           |            | 15      | 0         | 20.78                   | 20.90      | 20.74        | 21.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 18625/1852.5            | 18900/1880 | 19175/1907.5 |               |
| 5MHz      | QPSK       | 1       | 0         | 22.99                   | 23.00      | 22.88        | 23.50         |
|           |            | 1       | 13        | 22.87                   | 22.95      | 22.80        | 23.50         |
|           |            | 1       | 24        | 22.93                   | 22.86      | 22.75        | 23.50         |
|           |            | 12      | 0         | 21.95                   | 22.06      | 21.92        | 23.00         |
|           |            | 12      | 6         | 21.82                   | 21.88      | 21.83        | 23.00         |
|           |            | 12      | 13        | 21.87                   | 21.78      | 21.85        | 23.00         |
|           |            | 25      | 0         | 21.94                   | 21.87      | 21.82        | 23.00         |
|           | 16QAM      | 1       | 0         | 22.25                   | 21.98      | 21.98        | 23.00         |
|           |            | 1       | 13        | 22.16                   | 21.98      | 21.97        | 23.00         |
|           |            | 1       | 24        | 22.11                   | 22.09      | 22.04        | 23.00         |
|           |            | 12      | 0         | 20.93                   | 20.74      | 20.88        | 22.00         |
|           |            | 12      | 6         | 20.72                   | 20.90      | 20.80        | 22.00         |
|           |            | 12      | 13        | 20.95                   | 20.94      | 20.94        | 22.00         |
|           |            | 25      | 0         | 20.88                   | 20.87      | 20.78        | 22.00         |
|           | 64QAM      | 1       | 0         | 21.73                   | 21.26      | 21.97        | 22.00         |
|           |            | 1       | 13        | 21.61                   | 21.53      | 21.91        | 22.00         |
|           |            | 1       | 24        | 21.69                   | 21.83      | 21.78        | 22.00         |
|           |            | 12      | 0         | 20.96                   | 20.79      | 20.85        | 21.00         |
|           |            | 12      | 6         | 20.80                   | 20.86      | 20.76        | 21.00         |
|           |            | 12      | 13        | 20.86                   | 20.73      | 20.80        | 21.00         |
|           |            | 25      | 0         | 20.76                   | 20.86      | 20.69        | 21.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 18650/1855              | 18900/1880 | 19150/1905   |               |
| 10MHz     | QPSK       | 1       | 0         | 23.00                   | 22.99      | 22.90        | 23.50         |
|           |            | 1       | 25        | 22.88                   | 22.99      | 22.82        | 23.50         |
|           |            | 1       | 49        | 22.94                   | 22.88      | 22.77        | 23.50         |
|           |            | 25      | 0         | 21.96                   | 22.10      | 21.94        | 23.00         |
|           |            | 25      | 13        | 21.84                   | 21.91      | 21.86        | 23.00         |
|           |            | 25      | 25        | 21.87                   | 21.78      | 21.89        | 23.00         |
|           |            | 50      | 0         | 21.94                   | 21.88      | 21.83        | 23.00         |
|           | 16QAM      | 1       | 0         | 22.24                   | 21.96      | 21.98        | 23.00         |
|           |            | 1       | 25        | 22.18                   | 22.01      | 21.95        | 23.00         |

|           |            | 1       | 49        | 22.12                   | 22.07      | 22.06        | 23.00         |
|-----------|------------|---------|-----------|-------------------------|------------|--------------|---------------|
|           |            | 25      | 0         | 20.91                   | 20.78      | 20.89        | 22.00         |
|           |            | 25      | 13        | 20.71                   | 20.89      | 20.81        | 22.00         |
|           |            | 25      | 25        | 20.97                   | 20.98      | 20.93        | 22.00         |
|           |            | 50      | 0         | 20.87                   | 20.89      | 20.78        | 22.00         |
|           | 64QAM      | 1       | 0         | 21.73                   | 21.25      | 21.98        | 22.00         |
|           |            | 1       | 25        | 21.63                   | 21.55      | 21.91        | 22.00         |
|           |            | 1       | 49        | 21.69                   | 21.80      | 21.79        | 22.00         |
|           |            | 25      | 0         | 20.98                   | 20.83      | 20.84        | 21.00         |
|           |            | 25      | 13        | 20.78                   | 20.87      | 20.75        | 21.00         |
|           |            | 25      | 25        | 20.88                   | 20.74      | 20.83        | 21.00         |
|           |            | 50      | 0         | 20.78                   | 20.89      | 20.70        | 21.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 18675/1857.5            | 18900/1880 | 19125/1902.5 |               |
| 15MHz     | QPSK       | 1       | 0         | 23.00                   | 22.97      | 22.89        | 23.50         |
|           |            | 1       | 38        | 22.88                   | 22.99      | 22.81        | 23.50         |
|           |            | 1       | 74        | 22.92                   | 22.85      | 22.74        | 23.50         |
|           |            | 36      | 0         | 21.96                   | 22.07      | 21.93        | 23.00         |
|           |            | 36      | 18        | 21.82                   | 21.88      | 21.83        | 23.00         |
|           |            | 36      | 39        | 21.86                   | 21.79      | 21.86        | 23.00         |
|           |            | 75      | 0         | 21.97                   | 21.85      | 21.81        | 23.00         |
|           | 16QAM      | 1       | 0         | 22.22                   | 21.99      | 21.98        | 23.00         |
|           |            | 1       | 38        | 22.17                   | 21.99      | 21.98        | 23.00         |
|           |            | 1       | 74        | 22.11                   | 22.07      | 22.04        | 23.00         |
|           |            | 36      | 0         | 20.93                   | 20.77      | 20.89        | 22.00         |
|           |            | 36      | 18        | 20.71                   | 20.89      | 20.79        | 22.00         |
|           |            | 36      | 39        | 20.96                   | 20.95      | 20.95        | 22.00         |
|           |            | 75      | 0         | 20.88                   | 20.87      | 20.78        | 22.00         |
|           | 64QAM      | 1       | 0         | 21.70                   | 21.27      | 21.97        | 22.00         |
|           |            | 1       | 38        | 21.62                   | 21.54      | 21.92        | 22.00         |
|           |            | 1       | 74        | 21.69                   | 21.81      | 21.78        | 22.00         |
|           |            | 36      | 0         | 20.91                   | 20.82      | 20.86        | 21.00         |
|           |            | 36      | 18        | 20.79                   | 20.85      | 20.75        | 21.00         |
|           |            | 36      | 39        | 20.95                   | 20.74      | 20.81        | 21.00         |
|           |            | 75      | 0         | 20.76                   | 20.86      | 20.69        | 21.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 18700/1860              | 18900/1880 | 19100/1900   |               |
| 20MHz     | QPSK       | 1       | 0         | 22.97                   | 22.93      | 22.86        | 23.50         |
|           |            | 1       | 50        | 22.87                   | 22.95      | 22.79        | 23.50         |
|           |            | 1       | 99        | 22.90                   | 22.84      | 22.71        | 23.50         |
|           |            | 50      | 0         | 21.93                   | 22.02      | 21.89        | 23.00         |
|           |            | 50      | 25        | 21.80                   | 21.84      | 21.80        | 23.00         |
|           |            | 50      | 50        | 21.83                   | 21.74      | 21.82        | 23.00         |

|  |       |     |    |       |       |       |       |
|--|-------|-----|----|-------|-------|-------|-------|
|  |       | 100 | 0  | 21.94 | 21.80 | 21.77 | 23.00 |
|  | 16QAM | 1   | 0  | 22.20 | 21.95 | 21.93 | 23.00 |
|  |       | 1   | 50 | 22.13 | 21.97 | 21.94 | 23.00 |
|  |       | 1   | 99 | 22.09 | 22.04 | 22.02 | 23.00 |
|  |       | 50  | 0  | 20.90 | 20.73 | 20.86 | 22.00 |
|  |       | 50  | 25 | 20.68 | 20.87 | 20.76 | 22.00 |
|  |       | 50  | 50 | 20.93 | 20.90 | 20.91 | 22.00 |
|  |       | 100 | 0  | 20.86 | 20.83 | 20.75 | 22.00 |
|  | 64QAM | 1   | 0  | 21.68 | 21.23 | 21.92 | 22.00 |
|  |       | 1   | 50 | 21.58 | 21.52 | 21.88 | 22.00 |
|  |       | 1   | 99 | 21.67 | 21.78 | 21.76 | 22.00 |
|  |       | 50  | 0  | 20.93 | 20.78 | 20.83 | 21.00 |
|  |       | 50  | 25 | 20.76 | 20.83 | 20.72 | 21.00 |
|  |       | 50  | 50 | 20.92 | 20.69 | 20.77 | 21.00 |
|  |       | 100 | 0  | 20.74 | 20.82 | 20.66 | 21.00 |

| LTE FDD Band 2<br>(Hotspot on+Receiver off+SAR sensor on Level D1&D2) |            |         |           | Conducted Power(dBm)    |            |              | Tune-up<br>Limit |
|-----------------------------------------------------------------------|------------|---------|-----------|-------------------------|------------|--------------|------------------|
| Bandwidth                                                             | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              |                  |
|                                                                       |            |         |           | 18607/1850.7            | 18900/1880 | 19193/1909.3 |                  |
| 1.4MHz                                                                | QPSK       | 1       | 0         | 20.34                   | 20.38      | 20.31        | 21.00            |
|                                                                       |            | 1       | 2         | 20.20                   | 20.21      | 20.21        | 21.00            |
|                                                                       |            | 1       | 5         | 20.29                   | 20.23      | 20.17        | 21.00            |
|                                                                       |            | 3       | 0         | 20.28                   | 20.27      | 20.29        | 21.00            |
|                                                                       |            | 3       | 2         | 20.19                   | 20.11      | 20.14        | 21.00            |
|                                                                       |            | 3       | 3         | 20.15                   | 20.11      | 20.16        | 21.00            |
|                                                                       |            | 6       | 0         | 20.20                   | 20.21      | 20.19        | 21.00            |
|                                                                       | 16QAM      | 1       | 0         | 20.70                   | 20.67      | 20.58        | 21.00            |
|                                                                       |            | 1       | 2         | 20.43                   | 20.61      | 20.67        | 21.00            |
|                                                                       |            | 1       | 5         | 20.47                   | 20.61      | 20.57        | 21.00            |
|                                                                       |            | 3       | 0         | 20.19                   | 20.16      | 20.16        | 21.00            |
|                                                                       |            | 3       | 2         | 20.15                   | 20.11      | 20.03        | 21.00            |
|                                                                       |            | 3       | 3         | 20.03                   | 20.04      | 20.02        | 21.00            |
|                                                                       |            | 6       | 0         | 20.02                   | 20.08      | 20.08        | 21.00            |
|                                                                       | 64QAM      | 1       | 0         | 20.50                   | 20.17      | 20.46        | 21.00            |
|                                                                       |            | 1       | 2         | 20.39                   | 20.14      | 20.25        | 21.00            |
|                                                                       |            | 1       | 5         | 20.43                   | 20.26      | 20.24        | 21.00            |
|                                                                       |            | 3       | 0         | 20.03                   | 20.19      | 20.07        | 21.00            |
|                                                                       |            | 3       | 2         | 20.01                   | 20.03      | 20.02        | 21.00            |
|                                                                       |            | 3       | 3         | 20.09                   | 20.07      | 20.04        | 21.00            |
|                                                                       |            | 6       | 0         | 20.14                   | 20.16      | 20.06        | 21.00            |

| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|-----------|------------|---------|-----------|-------------------------|------------|--------------|---------------|
|           |            |         |           | 18615/1851.5            | 18900/1880 | 19185/1908.5 |               |
| 3MHz      | QPSK       | 1       | 0         | 20.36                   | 20.42      | 20.34        | 21.00         |
|           |            | 1       | 7         | 20.20                   | 20.23      | 20.25        | 21.00         |
|           |            | 1       | 14        | 20.32                   | 20.28      | 20.21        | 21.00         |
|           |            | 8       | 0         | 20.32                   | 20.34      | 20.36        | 21.00         |
|           |            | 8       | 4         | 20.22                   | 20.19      | 20.20        | 21.00         |
|           |            | 8       | 7         | 20.19                   | 20.16      | 20.20        | 21.00         |
|           |            | 15      | 0         | 20.22                   | 20.25      | 20.22        | 21.00         |
|           | 16QAM      | 1       | 0         | 20.73                   | 20.69      | 20.61        | 21.00         |
|           |            | 1       | 7         | 20.46                   | 20.63      | 20.71        | 21.00         |
|           |            | 1       | 14        | 20.49                   | 20.65      | 20.60        | 21.00         |
|           |            | 8       | 0         | 20.24                   | 20.20      | 20.19        | 21.00         |
|           |            | 8       | 4         | 20.20                   | 20.18      | 20.09        | 21.00         |
|           |            | 8       | 7         | 20.07                   | 20.10      | 20.09        | 21.00         |
|           |            | 15      | 0         | 20.05                   | 20.12      | 20.11        | 21.00         |
|           | 64QAM      | 1       | 0         | 20.53                   | 20.19      | 20.49        | 21.00         |
|           |            | 1       | 7         | 20.42                   | 20.16      | 20.29        | 21.00         |
|           |            | 1       | 14        | 20.45                   | 20.30      | 20.27        | 21.00         |
|           |            | 8       | 0         | 20.08                   | 20.23      | 20.10        | 21.00         |
|           |            | 8       | 4         | 20.06                   | 20.10      | 20.08        | 21.00         |
|           |            | 8       | 7         | 20.13                   | 20.13      | 20.11        | 21.00         |
|           |            | 15      | 0         | 20.16                   | 20.22      | 20.11        | 21.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 18625/1852.5            | 18900/1880 | 19175/1907.5 |               |
| 5MHz      | QPSK       | 1       | 0         | 20.33                   | 20.40      | 20.30        | 21.00         |
|           |            | 1       | 13        | 20.18                   | 20.19      | 20.22        | 21.00         |
|           |            | 1       | 24        | 20.29                   | 20.23      | 20.17        | 21.00         |
|           |            | 12      | 0         | 20.29                   | 20.29      | 20.32        | 21.00         |
|           |            | 12      | 6         | 20.20                   | 20.15      | 20.15        | 21.00         |
|           |            | 12      | 13        | 20.17                   | 20.14      | 20.16        | 21.00         |
|           |            | 25      | 0         | 20.20                   | 20.24      | 20.20        | 21.00         |
|           | 16QAM      | 1       | 0         | 20.70                   | 20.65      | 20.58        | 21.00         |
|           |            | 1       | 13        | 20.43                   | 20.61      | 20.68        | 21.00         |
|           |            | 1       | 24        | 20.46                   | 20.63      | 20.56        | 21.00         |
|           |            | 12      | 0         | 20.22                   | 20.16      | 20.16        | 21.00         |
|           |            | 12      | 6         | 20.17                   | 20.13      | 20.05        | 21.00         |
|           |            | 12      | 13        | 20.04                   | 20.05      | 20.05        | 21.00         |
|           |            | 25      | 0         | 20.03                   | 20.08      | 20.06        | 21.00         |
|           | 64QAM      | 1       | 0         | 20.50                   | 20.15      | 20.46        | 21.00         |
|           |            | 1       | 13        | 20.39                   | 20.14      | 20.26        | 21.00         |
|           |            | 1       | 24        | 20.42                   | 20.28      | 20.23        | 21.00         |
|           |            | 12      | 0         | 20.06                   | 20.19      | 20.07        | 21.00         |

|           |            | 12      | 6         | 20.03                   | 20.05      | 20.04        | 21.00         |
|-----------|------------|---------|-----------|-------------------------|------------|--------------|---------------|
|           |            | 12      | 13        | 20.10                   | 20.08      | 20.07        | 21.00         |
|           |            | 25      | 0         | 20.14                   | 20.18      | 20.06        | 21.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 18650/1855              | 18900/1880 | 19150/1905   |               |
| 10MHz     | QPSK       | 1       | 0         | 20.34                   | 20.39      | 20.32        | 21.00         |
|           |            | 1       | 25        | 20.19                   | 20.23      | 20.24        | 21.00         |
|           |            | 1       | 49        | 20.30                   | 20.25      | 20.19        | 21.00         |
|           |            | 25      | 0         | 20.30                   | 20.33      | 20.34        | 21.00         |
|           |            | 25      | 13        | 20.22                   | 20.18      | 20.18        | 21.00         |
|           |            | 25      | 25        | 20.17                   | 20.14      | 20.20        | 21.00         |
|           |            | 50      | 0         | 20.20                   | 20.25      | 20.21        | 21.00         |
|           | 16QAM      | 1       | 0         | 20.69                   | 20.63      | 20.58        | 21.00         |
|           |            | 1       | 25        | 20.45                   | 20.64      | 20.66        | 21.00         |
|           |            | 1       | 49        | 20.47                   | 20.61      | 20.58        | 21.00         |
|           |            | 25      | 0         | 20.20                   | 20.20      | 20.17        | 21.00         |
|           |            | 25      | 13        | 20.16                   | 20.12      | 20.06        | 21.00         |
|           |            | 25      | 25        | 20.06                   | 20.09      | 20.04        | 21.00         |
|           |            | 50      | 0         | 20.02                   | 20.10      | 20.06        | 21.00         |
|           | 64QAM      | 1       | 0         | 20.50                   | 20.14      | 20.47        | 21.00         |
|           |            | 1       | 25        | 20.41                   | 20.16      | 20.26        | 21.00         |
|           |            | 1       | 49        | 20.42                   | 20.25      | 20.24        | 21.00         |
|           |            | 25      | 0         | 20.08                   | 20.23      | 20.06        | 21.00         |
|           |            | 25      | 13        | 20.01                   | 20.06      | 20.03        | 21.00         |
|           |            | 25      | 25        | 20.11                   | 20.09      | 20.10        | 21.00         |
|           |            | 50      | 0         | 20.16                   | 20.21      | 20.07        | 21.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 18675/1857.5            | 18900/1880 | 19125/1902.5 |               |
| 15MHz     | QPSK       | 1       | 0         | 20.34                   | 20.37      | 20.31        | 21.00         |
|           |            | 1       | 38        | 20.19                   | 20.23      | 20.23        | 21.00         |
|           |            | 1       | 74        | 20.28                   | 20.22      | 20.16        | 21.00         |
|           |            | 36      | 0         | 20.30                   | 20.30      | 20.33        | 21.00         |
|           |            | 36      | 18        | 20.20                   | 20.15      | 20.15        | 21.00         |
|           |            | 36      | 39        | 20.16                   | 20.15      | 20.17        | 21.00         |
|           |            | 75      | 0         | 20.23                   | 20.22      | 20.19        | 21.00         |
|           | 16QAM      | 1       | 0         | 20.67                   | 20.66      | 20.58        | 21.00         |
|           |            | 1       | 38        | 20.44                   | 20.62      | 20.69        | 21.00         |
|           |            | 1       | 74        | 20.46                   | 20.61      | 20.56        | 21.00         |
|           |            | 36      | 0         | 20.22                   | 20.19      | 20.17        | 21.00         |
|           |            | 36      | 18        | 20.16                   | 20.12      | 20.04        | 21.00         |
|           |            | 36      | 39        | 20.05                   | 20.06      | 20.06        | 21.00         |
|           |            | 75      | 0         | 20.03                   | 20.08      | 20.06        | 21.00         |
|           | 64QAM      | 1       | 0         | 20.47                   | 20.16      | 20.46        | 21.00         |



|           |            | 1       | 38        | 20.40                   | 20.15      | 20.27      | 21.00         |
|-----------|------------|---------|-----------|-------------------------|------------|------------|---------------|
|           |            | 1       | 74        | 20.42                   | 20.26      | 20.23      | 21.00         |
|           |            | 36      | 0         | 20.06                   | 20.22      | 20.08      | 21.00         |
|           |            | 36      | 18        | 20.02                   | 20.04      | 20.03      | 21.00         |
|           |            | 36      | 39        | 20.11                   | 20.09      | 20.08      | 21.00         |
|           |            | 75      | 0         | 20.14                   | 20.18      | 20.06      | 21.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |            | Tune-up Limit |
|           |            |         |           | 18700/1860              | 18900/1880 | 19100/1900 |               |
| 20MHz     | QPSK       | 1       | 0         | 20.31                   | 20.33      | 20.28      | 21.00         |
|           |            | 1       | 50        | 20.18                   | 20.19      | 20.21      | 21.00         |
|           |            | 1       | 99        | 20.26                   | 20.21      | 20.13      | 21.00         |
|           |            | 50      | 0         | 20.27                   | 20.29      | 20.25      | 21.00         |
|           |            | 50      | 25        | 20.18                   | 20.11      | 20.12      | 21.00         |
|           |            | 50      | 50        | 20.13                   | 20.10      | 20.13      | 21.00         |
|           |            | 100     | 0         | 20.20                   | 20.17      | 20.15      | 21.00         |
|           | 16QAM      | 1       | 0         | 20.65                   | 20.62      | 20.53      | 21.00         |
|           |            | 1       | 50        | 20.40                   | 20.60      | 20.65      | 21.00         |
|           |            | 1       | 99        | 20.44                   | 20.58      | 20.54      | 21.00         |
|           |            | 50      | 0         | 20.19                   | 20.15      | 20.14      | 21.00         |
|           |            | 50      | 25        | 20.13                   | 20.10      | 20.01      | 21.00         |
|           |            | 50      | 50        | 20.02                   | 20.01      | 20.02      | 21.00         |
|           |            | 100     | 0         | 20.01                   | 20.04      | 20.03      | 21.00         |
|           | 64QAM      | 1       | 0         | 20.45                   | 20.12      | 20.41      | 21.00         |
|           |            | 1       | 50        | 20.36                   | 20.13      | 20.23      | 21.00         |
|           |            | 1       | 99        | 20.40                   | 20.23      | 20.21      | 21.00         |
|           |            | 50      | 0         | 20.03                   | 20.18      | 20.05      | 21.00         |
|           |            | 50      | 25        | 19.99                   | 20.02      | 20.00      | 21.00         |
|           |            | 50      | 50        | 20.08                   | 20.04      | 20.04      | 21.00         |
|           |            | 100     | 0         | 20.12                   | 20.14      | 20.03      | 21.00         |

| LTE FDD Band 4<br>(Receiver on)<br>(Receiver off+SAR sensor on Level D3)<br>(Receiver off+SAR sensor on Level D7)<br>(Sensor off+Hotspot off) |            |         |           | Conducted Power(dBm)    |              |              | Tune-up<br>Limit |
|-----------------------------------------------------------------------------------------------------------------------------------------------|------------|---------|-----------|-------------------------|--------------|--------------|------------------|
| Bandwidth                                                                                                                                     | Modulation | RB size | RB offset | Channel/Frequency (MHz) |              |              |                  |
|                                                                                                                                               |            |         |           | 19957/1710.7            | 20175/1732.5 | 20393/1754.3 |                  |
| 1.4MHz                                                                                                                                        | QPSK       | 1       | 0         | 22.66                   | 22.55        | 22.54        | 23.50            |
|                                                                                                                                               |            | 1       | 2         | 22.44                   | 22.29        | 22.35        | 23.50            |
|                                                                                                                                               |            | 1       | 5         | 22.39                   | 22.21        | 22.29        | 23.50            |
|                                                                                                                                               |            | 3       | 0         | 21.72                   | 21.83        | 21.32        | 22.50            |
|                                                                                                                                               |            | 3       | 2         | 21.64                   | 21.23        | 21.18        | 22.50            |
|                                                                                                                                               |            | 3       | 3         | 21.37                   | 21.21        | 21.28        | 22.50            |

|           | 16QAM      | 6       | 0         | 21.21                   | 21.23        | 21.23        | 22.50         |
|-----------|------------|---------|-----------|-------------------------|--------------|--------------|---------------|
|           |            | 1       | 0         | 22.09                   | 22.07        | 22.04        | 22.50         |
|           |            | 1       | 2         | 21.60                   | 21.70        | 21.63        | 22.50         |
|           |            | 1       | 5         | 21.67                   | 21.63        | 21.84        | 22.50         |
|           |            | 3       | 0         | 20.30                   | 20.36        | 20.27        | 21.50         |
|           |            | 3       | 2         | 20.24                   | 20.13        | 20.16        | 21.50         |
|           |            | 3       | 3         | 20.84                   | 20.19        | 20.30        | 21.50         |
|           |            | 6       | 0         | 20.22                   | 20.16        | 20.24        | 21.50         |
|           | 64QAM      | 1       | 0         | 20.20                   | 20.36        | 20.27        | 21.50         |
|           |            | 1       | 2         | 20.28                   | 20.18        | 20.18        | 21.50         |
|           |            | 1       | 5         | 20.33                   | 20.35        | 20.44        | 21.50         |
|           |            | 3       | 0         | 20.28                   | 20.22        | 20.18        | 20.50         |
|           |            | 3       | 2         | 20.22                   | 20.27        | 20.32        | 20.50         |
|           |            | 3       | 3         | 20.31                   | 20.25        | 20.19        | 20.50         |
|           |            | 6       | 0         | 20.33                   | 20.35        | 20.42        | 20.50         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |              |              | Tune-up Limit |
|           |            |         |           | 19965/1711.5            | 20175/1732.5 | 20385/1753.5 |               |
| 3MHz      | QPSK       | 1       | 0         | 22.68                   | 22.59        | 22.57        | 23.50         |
|           |            | 1       | 7         | 22.44                   | 22.31        | 22.39        | 23.50         |
|           |            | 1       | 14        | 22.42                   | 22.26        | 22.33        | 23.50         |
|           |            | 8       | 0         | 21.76                   | 21.90        | 21.39        | 22.50         |
|           |            | 8       | 4         | 21.67                   | 21.31        | 21.24        | 22.50         |
|           |            | 8       | 7         | 21.41                   | 21.26        | 21.32        | 22.50         |
|           |            | 15      | 0         | 21.23                   | 21.27        | 21.26        | 22.50         |
|           | 16QAM      | 1       | 0         | 22.12                   | 22.09        | 22.07        | 22.50         |
|           |            | 1       | 7         | 21.63                   | 21.72        | 21.67        | 22.50         |
|           |            | 1       | 14        | 21.69                   | 21.67        | 21.87        | 22.50         |
|           |            | 8       | 0         | 20.35                   | 20.40        | 20.30        | 21.50         |
|           |            | 8       | 4         | 20.29                   | 20.20        | 20.22        | 21.50         |
|           |            | 8       | 7         | 20.88                   | 20.25        | 20.37        | 21.50         |
|           |            | 15      | 0         | 20.25                   | 20.20        | 20.27        | 21.50         |
|           | 64QAM      | 1       | 0         | 20.23                   | 20.38        | 20.30        | 21.50         |
|           |            | 1       | 7         | 20.31                   | 20.20        | 20.22        | 21.50         |
|           |            | 1       | 14        | 20.35                   | 20.39        | 20.47        | 21.50         |
|           |            | 8       | 0         | 20.33                   | 20.26        | 20.21        | 20.50         |
|           |            | 8       | 4         | 20.27                   | 20.34        | 20.38        | 20.50         |
|           |            | 8       | 7         | 20.35                   | 20.31        | 20.26        | 20.50         |
|           |            | 15      | 0         | 20.35                   | 20.41        | 20.47        | 20.50         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |              |              | Tune-up Limit |
|           |            |         |           | 19975/1712.5            | 20175/1732.5 | 20375/1752.5 |               |
| 5MHz      | QPSK       | 1       | 0         | 22.65                   | 22.57        | 22.53        | 23.50         |
|           |            | 1       | 13        | 22.42                   | 22.27        | 22.36        | 23.50         |
|           |            | 1       | 24        | 22.39                   | 22.21        | 22.29        | 23.50         |

|           |            | 12      | 0         | 21.73                   | 21.85        | 21.35        | 22.50         |
|-----------|------------|---------|-----------|-------------------------|--------------|--------------|---------------|
|           |            | 12      | 6         | 21.65                   | 21.27        | 21.19        | 22.50         |
|           |            | 12      | 13        | 21.39                   | 21.24        | 21.28        | 22.50         |
|           |            | 25      | 0         | 21.21                   | 21.26        | 21.24        | 22.50         |
|           | 16QAM      | 1       | 0         | 22.09                   | 22.05        | 22.04        | 22.50         |
|           |            | 1       | 13        | 21.60                   | 21.70        | 21.64        | 22.50         |
|           |            | 1       | 24        | 21.66                   | 21.65        | 21.83        | 22.50         |
|           |            | 12      | 0         | 20.33                   | 20.36        | 20.27        | 21.50         |
|           |            | 12      | 6         | 20.26                   | 20.15        | 20.18        | 21.50         |
|           |            | 12      | 13        | 20.85                   | 20.20        | 20.33        | 21.50         |
|           |            | 25      | 0         | 20.23                   | 20.16        | 20.22        | 21.50         |
|           | 64QAM      | 1       | 0         | 20.20                   | 20.34        | 20.27        | 21.50         |
|           |            | 1       | 13        | 20.28                   | 20.18        | 20.19        | 21.50         |
|           |            | 1       | 24        | 20.32                   | 20.37        | 20.43        | 21.50         |
|           |            | 12      | 0         | 20.31                   | 20.22        | 20.18        | 20.50         |
|           |            | 12      | 6         | 20.24                   | 20.29        | 20.34        | 20.50         |
|           |            | 12      | 13        | 20.32                   | 20.26        | 20.22        | 20.50         |
|           |            | 25      | 0         | 20.33                   | 20.37        | 20.42        | 20.50         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |              |              | Tune-up Limit |
|           |            |         |           | 20000/1715              | 20175/1732.5 | 20350/1750   |               |
| 10MHz     | QPSK       | 1       | 0         | 22.66                   | 22.56        | 22.55        | 23.50         |
|           |            | 1       | 25        | 22.43                   | 22.31        | 22.38        | 23.50         |
|           |            | 1       | 49        | 22.40                   | 22.23        | 22.31        | 23.50         |
|           |            | 25      | 0         | 21.74                   | 21.89        | 21.37        | 22.50         |
|           |            | 25      | 13        | 21.67                   | 21.30        | 21.22        | 22.50         |
|           |            | 25      | 25        | 21.39                   | 21.24        | 21.32        | 22.50         |
|           |            | 50      | 0         | 21.21                   | 21.27        | 21.25        | 22.50         |
|           | 16QAM      | 1       | 0         | 22.08                   | 22.03        | 22.04        | 22.50         |
|           |            | 1       | 25        | 21.62                   | 21.73        | 21.62        | 22.50         |
|           |            | 1       | 49        | 21.67                   | 21.63        | 21.85        | 22.50         |
|           |            | 25      | 0         | 20.31                   | 20.40        | 20.28        | 21.50         |
|           |            | 25      | 13        | 20.25                   | 20.14        | 20.19        | 21.50         |
|           |            | 25      | 25        | 20.87                   | 20.24        | 20.32        | 21.50         |
|           |            | 50      | 0         | 20.22                   | 20.18        | 20.22        | 21.50         |
|           | 64QAM      | 1       | 0         | 20.20                   | 20.33        | 20.28        | 21.50         |
|           |            | 1       | 25        | 20.30                   | 20.20        | 20.19        | 21.50         |
|           |            | 1       | 49        | 20.32                   | 20.34        | 20.44        | 21.50         |
|           |            | 25      | 0         | 20.33                   | 20.26        | 20.17        | 20.50         |
|           |            | 25      | 13        | 20.22                   | 20.30        | 20.33        | 20.50         |
|           |            | 25      | 25        | 20.33                   | 20.27        | 20.25        | 20.50         |
|           |            | 50      | 0         | 20.35                   | 20.40        | 20.43        | 20.50         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |              |              | Tune-up Limit |
|           |            |         |           | 20025/1717.5            | 20175/1732.5 | 20325/1747.5 |               |

| <b>15MHz</b>     | <b>QPSK</b>       | 1              | 0                | 22.66                          | 22.54               | 22.54             | 23.50                |
|------------------|-------------------|----------------|------------------|--------------------------------|---------------------|-------------------|----------------------|
|                  |                   | 1              | 38               | 22.43                          | 22.31               | 22.37             | 23.50                |
|                  |                   | 1              | 74               | 22.38                          | 22.20               | 22.28             | 23.50                |
|                  |                   | 36             | 0                | 21.74                          | 21.86               | 21.36             | 22.50                |
|                  |                   | 36             | 18               | 21.65                          | 21.27               | 21.19             | 22.50                |
|                  |                   | 36             | 39               | 21.38                          | 21.25               | 21.29             | 22.50                |
|                  |                   | 75             | 0                | 21.24                          | 21.24               | 21.23             | 22.50                |
|                  | <b>16QAM</b>      | 1              | 0                | 22.06                          | 22.06               | 22.04             | 22.50                |
|                  |                   | 1              | 38               | 21.61                          | 21.71               | 21.65             | 22.50                |
|                  |                   | 1              | 74               | 21.66                          | 21.63               | 21.83             | 22.50                |
|                  |                   | 36             | 0                | 20.33                          | 20.39               | 20.28             | 21.50                |
|                  |                   | 36             | 18               | 20.25                          | 20.14               | 20.17             | 21.50                |
|                  |                   | 36             | 39               | 20.86                          | 20.21               | 20.34             | 21.50                |
|                  |                   | 75             | 0                | 20.23                          | 20.16               | 20.22             | 21.50                |
|                  | <b>64QAM</b>      | 1              | 0                | 20.17                          | 20.35               | 20.27             | 21.50                |
|                  |                   | 1              | 38               | 20.29                          | 20.19               | 20.20             | 21.50                |
|                  |                   | 1              | 74               | 20.32                          | 20.35               | 20.43             | 21.50                |
|                  |                   | 36             | 0                | 20.31                          | 20.25               | 20.19             | 20.50                |
|                  |                   | 36             | 18               | 20.23                          | 20.28               | 20.33             | 20.50                |
|                  |                   | 36             | 39               | 20.33                          | 20.27               | 20.23             | 20.50                |
|                  |                   | 75             | 0                | 20.33                          | 20.37               | 20.42             | 20.50                |
| <b>Bandwidth</b> | <b>Modulation</b> | <b>RB size</b> | <b>RB offset</b> | <b>Channel/Frequency (MHz)</b> |                     |                   | <b>Tune-up Limit</b> |
|                  |                   |                |                  | <b>20050/1720</b>              | <b>20175/1732.5</b> | <b>20300/1745</b> |                      |
| <b>20MHz</b>     | <b>QPSK</b>       | 1              | 0                | 22.63                          | 22.50               | 22.51             | 23.50                |
|                  |                   | 1              | 50               | 22.42                          | 22.27               | 22.35             | 23.50                |
|                  |                   | 1              | 99               | 22.36                          | 22.19               | 22.25             | 23.50                |
|                  |                   | 50             | 0                | 21.71                          | 21.81               | 21.32             | 22.50                |
|                  |                   | 50             | 25               | 21.63                          | 21.23               | 21.16             | 22.50                |
|                  |                   | 50             | 50               | 21.35                          | 21.20               | 21.25             | 22.50                |
|                  |                   | 100            | 0                | 21.21                          | 21.19               | 21.19             | 22.50                |
|                  | <b>16QAM</b>      | 1              | 0                | 22.04                          | 22.02               | 21.99             | 22.50                |
|                  |                   | 1              | 50               | 21.57                          | 21.69               | 21.61             | 22.50                |
|                  |                   | 1              | 99               | 21.64                          | 21.60               | 21.81             | 22.50                |
|                  |                   | 50             | 0                | 20.30                          | 20.35               | 20.25             | 21.50                |
|                  |                   | 50             | 25               | 20.22                          | 20.12               | 20.14             | 21.50                |
|                  |                   | 50             | 50               | 20.83                          | 20.16               | 20.30             | 21.50                |
|                  |                   | 100            | 0                | 20.21                          | 20.12               | 20.19             | 21.50                |
|                  | <b>64QAM</b>      | 1              | 0                | 20.15                          | 20.31               | 20.22             | 21.50                |
|                  |                   | 1              | 50               | 20.25                          | 20.17               | 20.16             | 21.50                |
|                  |                   | 1              | 99               | 20.30                          | 20.32               | 20.41             | 21.50                |
|                  |                   | 50             | 0                | 20.28                          | 20.21               | 20.16             | 20.50                |
|                  |                   | 50             | 25               | 20.20                          | 20.26               | 20.30             | 20.50                |
|                  |                   | 50             | 50               | 20.30                          | 20.22               | 20.19             | 20.50                |

|  |  |     |   |       |       |       |       |
|--|--|-----|---|-------|-------|-------|-------|
|  |  | 100 | 0 | 20.31 | 20.33 | 20.39 | 20.50 |
|--|--|-----|---|-------|-------|-------|-------|

| LTE FDD Band 4<br>(Hotspot on+Receiver on)<br>(Hotspot on+Receiver off+SAR sensor on Level D3)<br>(Hotspot on+Receiver off+SAR sensor on Level D7)<br>(sensor off+hotspot on) |            |         |           | Conducted Power(dBm)    |              |              | Tune-up<br>Limit |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------|-----------|-------------------------|--------------|--------------|------------------|
| Bandwidth                                                                                                                                                                     | Modulation | RB size | RB offset | Channel/Frequency (MHz) |              |              |                  |
|                                                                                                                                                                               |            |         |           | 19957/1710.7            | 20175/1732.5 | 20393/1754.3 |                  |
| 1.4MHz                                                                                                                                                                        | QPSK       | 1       | 0         | 19.93                   | 20.05        | 19.98        | 21.00            |
|                                                                                                                                                                               |            | 1       | 2         | 19.79                   | 19.86        | 19.87        | 21.00            |
|                                                                                                                                                                               |            | 1       | 5         | 19.88                   | 19.68        | 19.83        | 21.00            |
|                                                                                                                                                                               |            | 3       | 0         | 20.69                   | 20.92        | 20.83        | 21.00            |
|                                                                                                                                                                               |            | 3       | 2         | 20.60                   | 20.87        | 20.69        | 21.00            |
|                                                                                                                                                                               |            | 3       | 3         | 20.76                   | 20.67        | 20.73        | 21.00            |
|                                                                                                                                                                               |            | 6       | 0         | 19.86                   | 19.88        | 19.92        | 21.00            |
|                                                                                                                                                                               | 16QAM      | 1       | 0         | 20.11                   | 20.17        | 20.29        | 21.00            |
|                                                                                                                                                                               |            | 1       | 2         | 20.09                   | 20.13        | 20.13        | 21.00            |
|                                                                                                                                                                               |            | 1       | 5         | 20.13                   | 20.06        | 19.99        | 21.00            |
|                                                                                                                                                                               |            | 3       | 0         | 20.68                   | 20.63        | 20.77        | 21.00            |
|                                                                                                                                                                               |            | 3       | 2         | 20.53                   | 20.55        | 20.71        | 21.00            |
|                                                                                                                                                                               |            | 3       | 3         | 20.64                   | 20.62        | 20.63        | 21.00            |
|                                                                                                                                                                               |            | 6       | 0         | 19.52                   | 19.77        | 19.83        | 21.00            |
|                                                                                                                                                                               | 64QAM      | 1       | 0         | 20.18                   | 19.86        | 19.91        | 21.00            |
|                                                                                                                                                                               |            | 1       | 2         | 19.88                   | 19.85        | 19.70        | 21.00            |
|                                                                                                                                                                               |            | 1       | 5         | 20.04                   | 19.98        | 19.86        | 21.00            |
|                                                                                                                                                                               |            | 3       | 0         | 20.58                   | 20.80        | 20.77        | 21.00            |
|                                                                                                                                                                               |            | 3       | 2         | 20.52                   | 20.62        | 20.64        | 21.00            |
|                                                                                                                                                                               |            | 3       | 3         | 20.81                   | 20.60        | 20.66        | 21.00            |
|                                                                                                                                                                               |            | 6       | 0         | 19.78                   | 19.73        | 19.81        | 20.50            |
| Bandwidth                                                                                                                                                                     | Modulation | RB size | RB offset | Channel/Frequency (MHz) |              |              | Tune-up<br>Limit |
|                                                                                                                                                                               |            |         |           | 19965/1711.5            | 20175/1732.5 | 20385/1753.5 |                  |
| 3MHz                                                                                                                                                                          | QPSK       | 1       | 0         | 19.95                   | 20.09        | 20.01        | 21.00            |
|                                                                                                                                                                               |            | 1       | 7         | 19.77                   | 19.89        | 19.91        | 21.00            |
|                                                                                                                                                                               |            | 1       | 14        | 19.91                   | 19.73        | 19.87        | 21.00            |
|                                                                                                                                                                               |            | 8       | 0         | 19.79                   | 20.04        | 19.96        | 21.00            |
|                                                                                                                                                                               |            | 8       | 4         | 19.72                   | 19.97        | 19.81        | 21.00            |
|                                                                                                                                                                               |            | 8       | 7         | 19.86                   | 19.78        | 19.83        | 21.00            |
|                                                                                                                                                                               |            | 15      | 0         | 19.86                   | 19.92        | 19.95        | 21.00            |
|                                                                                                                                                                               | 16QAM      | 1       | 0         | 20.14                   | 20.19        | 20.32        | 21.00            |
|                                                                                                                                                                               |            | 1       | 7         | 20.12                   | 20.13        | 20.17        | 21.00            |
|                                                                                                                                                                               |            | 1       | 14        | 20.15                   | 20.10        | 20.02        | 21.00            |
|                                                                                                                                                                               |            | 8       | 0         | 19.79                   | 19.76        | 19.89        | 21.00            |

|           |            | 8       | 4         | 19.64                   | 19.68        | 19.83        | 21.00         |
|-----------|------------|---------|-----------|-------------------------|--------------|--------------|---------------|
|           |            | 8       | 7         | 19.74                   | 19.74        | 19.76        | 21.00         |
|           |            | 15      | 0         | 19.55                   | 19.81        | 19.86        | 21.00         |
|           | 64QAM      | 1       | 0         | 20.21                   | 19.88        | 19.94        | 21.00         |
|           |            | 1       | 7         | 19.91                   | 19.85        | 19.72        | 21.00         |
|           |            | 1       | 14        | 20.06                   | 19.97        | 19.89        | 21.00         |
|           |            | 8       | 0         | 19.69                   | 19.93        | 19.89        | 20.50         |
|           |            | 8       | 4         | 19.63                   | 19.75        | 19.76        | 20.50         |
|           |            | 8       | 7         | 19.91                   | 19.72        | 19.79        | 20.50         |
|           |            | 15      | 0         | 19.81                   | 19.77        | 19.84        | 20.50         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |              |              | Tune-up Limit |
|           |            |         |           | 19975/1712.5            | 20175/1732.5 | 20375/1752.5 |               |
| 5MHz      | QPSK       | 1       | 0         | 19.93                   | 20.04        | 19.98        | 21.00         |
|           |            | 1       | 13        | 19.76                   | 19.89        | 19.89        | 21.00         |
|           |            | 1       | 24        | 19.87                   | 19.67        | 19.82        | 21.00         |
|           |            | 12      | 0         | 19.77                   | 20.00        | 19.93        | 21.00         |
|           |            | 12      | 6         | 19.70                   | 19.93        | 19.76        | 21.00         |
|           |            | 12      | 13        | 19.83                   | 19.77        | 19.80        | 21.00         |
|           |            | 25      | 0         | 19.88                   | 19.89        | 19.92        | 21.00         |
|           | 16QAM      | 1       | 0         | 20.08                   | 20.16        | 20.29        | 21.00         |
|           |            | 1       | 13        | 20.10                   | 20.12        | 20.15        | 21.00         |
|           |            | 1       | 24        | 20.12                   | 20.06        | 19.98        | 21.00         |
|           |            | 12      | 0         | 19.77                   | 19.75        | 19.87        | 21.00         |
|           |            | 12      | 6         | 19.60                   | 19.62        | 19.78        | 21.00         |
|           |            | 12      | 13        | 19.72                   | 19.70        | 19.73        | 21.00         |
|           |            | 25      | 0         | 19.53                   | 19.77        | 19.81        | 21.00         |
|           | 64QAM      | 1       | 0         | 20.15                   | 19.85        | 19.91        | 21.00         |
|           |            | 1       | 13        | 19.89                   | 19.84        | 19.70        | 21.00         |
|           |            | 1       | 24        | 20.07                   | 19.96        | 19.89        | 21.00         |
|           |            | 12      | 0         | 19.69                   | 19.96        | 19.91        | 20.50         |
|           |            | 12      | 6         | 19.60                   | 19.71        | 19.74        | 20.50         |
|           |            | 12      | 13        | 19.89                   | 19.68        | 19.76        | 20.50         |
|           |            | 25      | 0         | 19.79                   | 19.73        | 19.79        | 20.50         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |              |              | Tune-up Limit |
|           |            |         |           | 20000/1715              | 20175/1732.5 | 20350/1750   |               |
| 10MHz     | QPSK       | 1       | 0         | 19.92                   | 20.07        | 19.97        | 21.00         |
|           |            | 1       | 25        | 19.75                   | 19.85        | 19.88        | 21.00         |
|           |            | 1       | 49        | 19.88                   | 19.68        | 19.83        | 21.00         |
|           |            | 25      | 0         | 19.76                   | 19.99        | 19.92        | 21.00         |
|           |            | 25      | 13        | 19.70                   | 19.93        | 19.76        | 21.00         |
|           |            | 25      | 25        | 19.84                   | 19.76        | 19.79        | 21.00         |
|           |            | 50      | 0         | 19.86                   | 19.91        | 19.93        | 21.00         |
|           | 16QAM      | 1       | 0         | 20.11                   | 20.15        | 20.29        | 21.00         |

|           |            | 1       | 25        | 20.09                   | 20.11        | 20.14        | 21.00         |
|-----------|------------|---------|-----------|-------------------------|--------------|--------------|---------------|
|           |            | 1       | 49        | 20.12                   | 20.08        | 19.98        | 21.00         |
|           |            | 25      | 0         | 19.77                   | 19.72        | 19.86        | 21.00         |
|           |            | 25      | 13        | 19.61                   | 19.63        | 19.79        | 21.00         |
|           |            | 25      | 25        | 19.71                   | 19.69        | 19.72        | 21.00         |
|           |            | 50      | 0         | 19.53                   | 19.77        | 19.81        | 21.00         |
|           |            | 1       | 0         | 20.18                   | 19.88        | 19.91        | 21.00         |
|           | 64QAM      | 1       | 25        | 19.88                   | 19.87        | 19.69        | 21.00         |
|           |            | 1       | 49        | 20.07                   | 19.95        | 19.85        | 21.00         |
|           |            | 25      | 0         | 19.67                   | 19.89        | 19.90        | 20.50         |
|           |            | 25      | 13        | 19.60                   | 19.70        | 19.72        | 20.50         |
|           |            | 25      | 25        | 19.88                   | 19.67        | 19.75        | 20.50         |
|           |            | 50      | 0         | 19.79                   | 19.73        | 19.79        | 20.50         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |              |              | Tune-up Limit |
|           |            |         |           | 20025/1717.5            | 20175/1732.5 | 20325/1747.5 |               |
| 15MHz     | QPSK       | 1       | 0         | 19.94                   | 20.08        | 20.00        | 21.00         |
|           |            | 1       | 38        | 19.78                   | 19.90        | 19.92        | 21.00         |
|           |            | 1       | 74        | 19.90                   | 19.72        | 19.86        | 21.00         |
|           |            | 36      | 0         | 19.79                   | 20.04        | 19.96        | 21.00         |
|           |            | 36      | 18        | 19.73                   | 19.98        | 19.80        | 21.00         |
|           |            | 36      | 39        | 19.86                   | 19.80        | 19.84        | 21.00         |
|           |            | 75      | 0         | 19.90                   | 19.93        | 19.97        | 21.00         |
|           | 16QAM      | 1       | 0         | 20.13                   | 20.18        | 20.31        | 21.00         |
|           |            | 1       | 38        | 20.12                   | 20.15        | 20.17        | 21.00         |
|           |            | 1       | 74        | 20.15                   | 20.10        | 20.01        | 21.00         |
|           |            | 36      | 0         | 19.80                   | 19.77        | 19.90        | 21.00         |
|           |            | 36      | 18        | 19.63                   | 19.67        | 19.82        | 21.00         |
|           |            | 36      | 39        | 19.74                   | 19.74        | 19.76        | 21.00         |
|           |            | 75      | 0         | 19.56                   | 19.82        | 19.85        | 21.00         |
|           | 64QAM      | 1       | 0         | 20.20                   | 19.87        | 19.93        | 21.00         |
|           |            | 1       | 38        | 19.91                   | 19.87        | 19.72        | 21.00         |
|           |            | 1       | 74        | 20.06                   | 19.97        | 19.88        | 21.00         |
|           |            | 36      | 0         | 19.70                   | 19.94        | 19.90        | 20.50         |
|           |            | 36      | 18        | 19.62                   | 19.74        | 19.75        | 20.50         |
|           |            | 36      | 39        | 19.91                   | 19.72        | 19.79        | 20.50         |
|           |            | 75      | 0         | 19.82                   | 19.78        | 19.83        | 20.50         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |              |              | Tune-up Limit |
|           |            |         |           | 20050/1720              | 20175/1732.5 | 20300/1745   |               |
| 20MHz     | QPSK       | 1       | 0         | 19.90                   | 20.00        | 19.95        | 21.00         |
|           |            | 1       | 50        | 19.75                   | 19.85        | 19.87        | 21.00         |
|           |            | 1       | 99        | 19.85                   | 19.66        | 19.79        | 21.00         |
|           |            | 50      | 0         | 19.74                   | 19.95        | 19.89        | 21.00         |
|           |            | 50      | 25        | 19.68                   | 19.89        | 19.73        | 21.00         |

|  |       |     |    |       |       |       |       |
|--|-------|-----|----|-------|-------|-------|-------|
|  |       | 50  | 50 | 19.80 | 19.72 | 19.76 | 21.00 |
|  |       | 100 | 0  | 19.85 | 19.84 | 19.88 | 21.00 |
|  | 16QAM | 1   | 0  | 20.07 | 20.12 | 20.24 | 21.00 |
|  |       | 1   | 50 | 20.06 | 20.10 | 20.11 | 21.00 |
|  |       | 1   | 99 | 20.10 | 20.03 | 19.96 | 21.00 |
|  |       | 50  | 0  | 19.74 | 19.71 | 19.84 | 21.00 |
|  |       | 50  | 25 | 19.57 | 19.60 | 19.75 | 21.00 |
|  |       | 50  | 50 | 19.69 | 19.65 | 19.69 | 21.00 |
|  |       | 100 | 0  | 19.51 | 19.73 | 19.78 | 21.00 |
|  | 64QAM | 1   | 0  | 20.13 | 19.81 | 19.86 | 21.00 |
|  |       | 1   | 50 | 19.85 | 19.82 | 19.66 | 21.00 |
|  |       | 1   | 99 | 20.01 | 19.90 | 19.83 | 21.00 |
|  |       | 50  | 0  | 19.64 | 19.88 | 19.84 | 20.50 |
|  |       | 50  | 25 | 19.56 | 19.67 | 19.68 | 20.50 |
|  |       | 50  | 50 | 19.86 | 19.63 | 19.72 | 20.50 |
|  |       | 100 | 0  | 19.77 | 19.69 | 19.76 | 20.50 |

| LTE FDD Band 4<br>(Receiver off+SAR sensor on Level D1&D2) |            |         |           | Conducted Power(dBm)    |              |              | Tune-up<br>Limit |
|------------------------------------------------------------|------------|---------|-----------|-------------------------|--------------|--------------|------------------|
| Bandwidth                                                  | Modulation | RB size | RB offset | Channel/Frequency (MHz) |              |              |                  |
|                                                            |            |         |           | 19957/1710.7            | 20175/1732.5 | 20393/1754.3 |                  |
| 1.4MHz                                                     | QPSK       | 1       | 0         | 22.28                   | 22.37        | 21.89        | 22.50            |
|                                                            |            | 1       | 2         | 22.34                   | 22.31        | 22.13        | 22.50            |
|                                                            |            | 1       | 5         | 22.41                   | 22.45        | 22.22        | 22.50            |
|                                                            |            | 3       | 0         | 21.12                   | 21.42        | 21.07        | 22.50            |
|                                                            |            | 3       | 2         | 21.26                   | 21.25        | 21.12        | 22.50            |
|                                                            |            | 3       | 3         | 21.33                   | 21.32        | 21.29        | 22.50            |
|                                                            |            | 6       | 0         | 21.20                   | 21.24        | 21.31        | 22.50            |
|                                                            | 16QAM      | 1       | 0         | 21.62                   | 21.61        | 21.63        | 22.50            |
|                                                            |            | 1       | 2         | 21.52                   | 21.27        | 21.34        | 22.50            |
|                                                            |            | 1       | 5         | 21.64                   | 21.48        | 21.42        | 22.50            |
|                                                            |            | 3       | 0         | 20.66                   | 20.87        | 20.76        | 22.50            |
|                                                            |            | 3       | 2         | 20.73                   | 20.76        | 20.71        | 22.50            |
|                                                            |            | 3       | 3         | 20.79                   | 20.64        | 20.63        | 22.50            |
|                                                            |            | 6       | 0         | 20.11                   | 20.25        | 20.11        | 21.50            |
|                                                            | 64QAM      | 1       | 0         | 20.28                   | 20.25        | 20.23        | 21.50            |
|                                                            |            | 1       | 2         | 20.14                   | 20.10        | 20.12        | 21.50            |
|                                                            |            | 1       | 5         | 20.19                   | 20.27        | 20.28        | 21.50            |
|                                                            |            | 3       | 0         | 19.22                   | 19.16        | 19.13        | 21.50            |
|                                                            |            | 3       | 2         | 19.28                   | 19.26        | 19.18        | 21.50            |
|                                                            |            | 3       | 3         | 19.32                   | 19.33        | 19.28        | 21.50            |
|                                                            |            | 6       | 0         | 19.21                   | 19.24        | 19.30        | 20.50            |



| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |              |              | Tune-up Limit |
|-----------|------------|---------|-----------|-------------------------|--------------|--------------|---------------|
|           |            |         |           | 19965/1711.5            | 20175/1732.5 | 20385/1753.5 |               |
| 3MHz      | QPSK       | 1       | 0         | 22.30                   | 22.41        | 21.92        | 22.50         |
|           |            | 1       | 7         | 22.34                   | 22.33        | 22.17        | 22.50         |
|           |            | 1       | 14        | 22.44                   | 22.50        | 22.26        | 22.50         |
|           |            | 8       | 0         | 21.16                   | 21.49        | 21.14        | 22.50         |
|           |            | 8       | 4         | 21.29                   | 21.33        | 21.18        | 22.50         |
|           |            | 8       | 7         | 21.37                   | 21.37        | 21.33        | 22.50         |
|           |            | 15      | 0         | 21.22                   | 21.28        | 21.34        | 22.50         |
|           | 16QAM      | 1       | 0         | 21.65                   | 21.63        | 21.66        | 22.50         |
|           |            | 1       | 7         | 21.55                   | 21.29        | 21.38        | 22.50         |
|           |            | 1       | 14        | 21.66                   | 21.52        | 21.45        | 22.50         |
|           |            | 8       | 0         | 20.21                   | 20.41        | 20.29        | 21.50         |
|           |            | 8       | 4         | 20.28                   | 20.33        | 20.27        | 21.50         |
|           |            | 8       | 7         | 20.33                   | 20.20        | 20.20        | 21.50         |
|           |            | 15      | 0         | 20.14                   | 20.29        | 20.14        | 21.50         |
|           | 64QAM      | 1       | 0         | 20.31                   | 20.27        | 20.26        | 21.50         |
|           |            | 1       | 7         | 20.17                   | 20.12        | 20.16        | 21.50         |
|           |            | 1       | 14        | 20.21                   | 20.31        | 20.31        | 21.50         |
|           |            | 8       | 0         | 19.27                   | 19.20        | 19.16        | 20.50         |
|           |            | 8       | 4         | 19.33                   | 19.33        | 19.24        | 20.50         |
|           |            | 8       | 7         | 19.36                   | 19.39        | 19.35        | 20.50         |
|           |            | 15      | 0         | 19.23                   | 19.30        | 19.35        | 20.50         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |              |              | Tune-up Limit |
|           |            |         |           | 19975/1712.5            | 20175/1732.5 | 20375/1752.5 |               |
| 5MHz      | QPSK       | 1       | 0         | 22.27                   | 22.39        | 21.88        | 22.50         |
|           |            | 1       | 13        | 22.32                   | 22.29        | 22.14        | 22.50         |
|           |            | 1       | 24        | 22.41                   | 22.45        | 22.22        | 22.50         |
|           |            | 12      | 0         | 21.13                   | 21.44        | 21.10        | 22.50         |
|           |            | 12      | 6         | 21.27                   | 21.29        | 21.13        | 22.50         |
|           |            | 12      | 13        | 21.35                   | 21.35        | 21.29        | 22.50         |
|           |            | 25      | 0         | 21.20                   | 21.27        | 21.32        | 22.50         |
|           | 16QAM      | 1       | 0         | 21.62                   | 21.59        | 21.63        | 22.50         |
|           |            | 1       | 13        | 21.52                   | 21.27        | 21.35        | 22.50         |
|           |            | 1       | 24        | 21.63                   | 21.50        | 21.41        | 22.50         |
|           |            | 12      | 0         | 20.19                   | 20.37        | 20.26        | 21.50         |
|           |            | 12      | 6         | 20.25                   | 20.28        | 20.23        | 21.50         |
|           |            | 12      | 13        | 20.30                   | 20.15        | 20.16        | 21.50         |
|           |            | 25      | 0         | 20.12                   | 20.25        | 20.09        | 21.50         |
|           | 64QAM      | 1       | 0         | 20.28                   | 20.23        | 20.23        | 21.50         |
|           |            | 1       | 13        | 20.14                   | 20.10        | 20.13        | 21.50         |
|           |            | 1       | 24        | 20.18                   | 20.29        | 20.27        | 21.50         |
|           |            | 12      | 0         | 19.25                   | 19.16        | 19.13        | 20.50         |

|           |            | 12      | 6         | 19.30                   | 19.28        | 19.20        | 20.50         |
|-----------|------------|---------|-----------|-------------------------|--------------|--------------|---------------|
|           |            | 12      | 13        | 19.33                   | 19.34        | 19.31        | 20.50         |
|           |            | 25      | 0         | 19.21                   | 19.26        | 19.30        | 20.50         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |              |              | Tune-up Limit |
|           |            |         |           | 20000/1715              | 20175/1732.5 | 20350/1750   |               |
| 10MHz     | QPSK       | 1       | 0         | 22.28                   | 22.38        | 21.90        | 22.50         |
|           |            | 1       | 25        | 22.33                   | 22.33        | 22.16        | 22.50         |
|           |            | 1       | 49        | 22.42                   | 22.47        | 22.24        | 22.50         |
|           |            | 25      | 0         | 21.14                   | 21.48        | 21.12        | 22.50         |
|           |            | 25      | 13        | 21.29                   | 21.32        | 21.16        | 22.50         |
|           |            | 25      | 25        | 21.35                   | 21.35        | 21.33        | 22.50         |
|           |            | 50      | 0         | 21.20                   | 21.28        | 21.33        | 22.50         |
|           | 16QAM      | 1       | 0         | 21.61                   | 21.57        | 21.63        | 22.50         |
|           |            | 1       | 25        | 21.54                   | 21.30        | 21.33        | 22.50         |
|           |            | 1       | 49        | 21.64                   | 21.48        | 21.43        | 22.50         |
|           |            | 25      | 0         | 20.17                   | 20.41        | 20.27        | 21.50         |
|           |            | 25      | 13        | 20.24                   | 20.27        | 20.24        | 21.50         |
|           |            | 25      | 25        | 20.32                   | 20.19        | 20.15        | 21.50         |
|           |            | 50      | 0         | 20.11                   | 20.27        | 20.09        | 21.50         |
|           | 64QAM      | 1       | 0         | 20.28                   | 20.22        | 20.24        | 21.50         |
|           |            | 1       | 25        | 20.16                   | 20.12        | 20.13        | 21.50         |
|           |            | 1       | 49        | 20.18                   | 20.26        | 20.28        | 21.50         |
|           |            | 25      | 0         | 19.27                   | 19.20        | 19.12        | 20.50         |
|           |            | 25      | 13        | 19.28                   | 19.29        | 19.19        | 20.50         |
|           |            | 25      | 25        | 19.34                   | 19.35        | 19.34        | 20.50         |
|           |            | 50      | 0         | 19.23                   | 19.29        | 19.31        | 20.50         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |              |              | Tune-up Limit |
|           |            |         |           | 20025/1717.5            | 20175/1732.5 | 20325/1747.5 |               |
| 15MHz     | QPSK       | 1       | 0         | 22.28                   | 22.36        | 21.89        | 22.50         |
|           |            | 1       | 38        | 22.33                   | 22.33        | 22.15        | 22.50         |
|           |            | 1       | 74        | 22.40                   | 22.44        | 22.21        | 22.50         |
|           |            | 36      | 0         | 21.14                   | 21.45        | 21.11        | 22.50         |
|           |            | 36      | 18        | 21.27                   | 21.29        | 21.13        | 22.50         |
|           |            | 36      | 39        | 21.34                   | 21.36        | 21.30        | 22.50         |
|           |            | 75      | 0         | 21.23                   | 21.25        | 21.31        | 22.50         |
|           | 16QAM      | 1       | 0         | 21.59                   | 21.60        | 21.63        | 22.50         |
|           |            | 1       | 38        | 21.53                   | 21.28        | 21.36        | 22.50         |
|           |            | 1       | 74        | 21.63                   | 21.48        | 21.41        | 22.50         |
|           |            | 36      | 0         | 20.19                   | 20.40        | 20.27        | 21.50         |
|           |            | 36      | 18        | 20.24                   | 20.27        | 20.22        | 21.50         |
|           |            | 36      | 39        | 20.31                   | 20.16        | 20.17        | 21.50         |
|           |            | 75      | 0         | 20.12                   | 20.25        | 20.09        | 21.50         |
|           | 64QAM      | 1       | 0         | 20.25                   | 20.24        | 20.23        | 21.50         |

|              |            | 1       | 38        | 20.15                   | 20.11        | 20.14      | 21.50         |
|--------------|------------|---------|-----------|-------------------------|--------------|------------|---------------|
|              |            | 1       | 74        | 20.18                   | 20.27        | 20.27      | 21.50         |
|              |            | 36      | 0         | 19.25                   | 19.19        | 19.14      | 20.50         |
|              |            | 36      | 18        | 19.29                   | 19.27        | 19.19      | 20.50         |
|              |            | 36      | 39        | 19.34                   | 19.35        | 19.32      | 20.50         |
|              |            | 75      | 0         | 19.21                   | 19.26        | 19.30      | 20.50         |
| Bandwidth    | Modulation | RB size | RB offset | Channel/Frequency (MHz) |              |            | Tune-up Limit |
|              |            |         |           | 20050/1720              | 20175/1732.5 | 20300/1745 |               |
| <b>20MHz</b> | QPSK       | 1       | 0         | 22.25                   | 22.32        | 21.86      | 22.50         |
|              |            | 1       | 50        | 22.32                   | 22.29        | 22.13      | 22.50         |
|              |            | 1       | 99        | 22.38                   | 22.43        | 22.18      | 22.50         |
|              |            | 50      | 0         | 21.11                   | 21.40        | 21.07      | 22.50         |
|              |            | 50      | 25        | 21.25                   | 21.25        | 21.10      | 22.50         |
|              |            | 50      | 50        | 21.31                   | 21.31        | 21.26      | 22.50         |
|              |            | 100     | 0         | 21.20                   | 21.20        | 21.27      | 22.50         |
|              | 16QAM      | 1       | 0         | 21.57                   | 21.56        | 21.58      | 22.50         |
|              |            | 1       | 50        | 21.49                   | 21.26        | 21.32      | 22.50         |
|              |            | 1       | 99        | 21.61                   | 21.45        | 21.39      | 22.50         |
|              |            | 50      | 0         | 20.16                   | 20.36        | 20.24      | 21.50         |
|              |            | 50      | 25        | 20.21                   | 20.25        | 20.19      | 21.50         |
|              |            | 50      | 50        | 20.28                   | 20.11        | 20.13      | 21.50         |
|              |            | 100     | 0         | 20.10                   | 20.21        | 20.06      | 21.50         |
|              | 64QAM      | 1       | 0         | 20.23                   | 20.20        | 20.18      | 21.50         |
|              |            | 1       | 50        | 20.11                   | 20.09        | 20.10      | 21.50         |
|              |            | 1       | 99        | 20.16                   | 20.24        | 20.25      | 21.50         |
|              |            | 50      | 0         | 19.22                   | 19.15        | 19.11      | 20.50         |
|              |            | 50      | 25        | 19.26                   | 19.25        | 19.16      | 20.50         |
|              |            | 50      | 50        | 19.31                   | 19.30        | 19.28      | 20.50         |
|              |            | 100     | 0         | 19.19                   | 19.22        | 19.27      | 20.50         |

| LTE FDD Band 4<br>(Hotspot on+Receiver off+SAR sensor on Level D1&D2) |            |         |           | Conducted Power(dBm)    |              |              | Tune-up<br>Limit |
|-----------------------------------------------------------------------|------------|---------|-----------|-------------------------|--------------|--------------|------------------|
| Bandwidth                                                             | Modulation | RB size | RB offset | Channel/Frequency (MHz) |              |              |                  |
|                                                                       |            |         |           | 19957/1710.7            | 20175/1732.5 | 20393/1754.3 |                  |
| 1.4MHz                                                                | QPSK       | 1       | 0         | 19.46                   | 19.62        | 19.54        | 20.00            |
|                                                                       |            | 1       | 2         | 19.48                   | 19.44        | 19.44        | 20.00            |
|                                                                       |            | 1       | 5         | 19.55                   | 19.51        | 19.50        | 20.00            |
|                                                                       |            | 3       | 0         | 19.55                   | 19.56        | 19.48        | 20.00            |
|                                                                       |            | 3       | 2         | 19.52                   | 19.56        | 19.54        | 20.00            |
|                                                                       |            | 3       | 3         | 19.57                   | 19.48        | 19.44        | 20.00            |
|                                                                       |            | 6       | 0         | 19.54                   | 19.55        | 19.43        | 20.00            |
|                                                                       | 16QAM      | 1       | 0         | 19.53                   | 19.78        | 19.71        | 20.00            |
|                                                                       |            | 1       | 2         | 19.74                   | 19.66        | 19.54        | 20.00            |

|           |            | 1       | 5         | 19.82                   | 19.61        | 19.58        | 20.00         |
|-----------|------------|---------|-----------|-------------------------|--------------|--------------|---------------|
|           |            | 3       | 0         | 19.32                   | 19.47        | 19.45        | 20.00         |
|           |            | 3       | 2         | 19.37                   | 19.45        | 19.42        | 20.00         |
|           |            | 3       | 3         | 19.42                   | 19.40        | 19.33        | 20.00         |
|           |            | 6       | 0         | 19.35                   | 19.43        | 19.34        | 20.00         |
|           | 64QAM      | 1       | 0         | 19.47                   | 19.45        | 19.50        | 20.00         |
|           |            | 1       | 2         | 19.44                   | 19.40        | 19.39        | 20.00         |
|           |            | 1       | 5         | 19.39                   | 19.38        | 19.45        | 20.00         |
|           |            | 3       | 0         | 19.43                   | 19.38        | 19.40        | 20.00         |
|           |            | 3       | 2         | 19.51                   | 19.52        | 19.50        | 20.00         |
|           |            | 3       | 3         | 19.26                   | 19.22        | 19.34        | 20.00         |
|           |            | 6       | 0         | 19.36                   | 19.44        | 19.42        | 20.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |              |              | Tune-up Limit |
|           |            |         |           | 19965/1711.5            | 20175/1732.5 | 20385/1753.5 |               |
| 3MHz      | QPSK       | 1       | 0         | 19.48                   | 19.66        | 19.57        | 20.00         |
|           |            | 1       | 7         | 19.48                   | 19.46        | 19.48        | 20.00         |
|           |            | 1       | 14        | 19.58                   | 19.56        | 19.54        | 20.00         |
|           |            | 8       | 0         | 19.59                   | 19.63        | 19.55        | 20.00         |
|           |            | 8       | 4         | 19.55                   | 19.64        | 19.60        | 20.00         |
|           |            | 8       | 7         | 19.61                   | 19.53        | 19.48        | 20.00         |
|           |            | 15      | 0         | 19.56                   | 19.59        | 19.46        | 20.00         |
|           | 16QAM      | 1       | 0         | 19.56                   | 19.80        | 19.74        | 20.00         |
|           |            | 1       | 7         | 19.77                   | 19.68        | 19.58        | 20.00         |
|           |            | 1       | 14        | 19.84                   | 19.65        | 19.61        | 20.00         |
|           |            | 8       | 0         | 19.37                   | 19.51        | 19.48        | 20.00         |
|           |            | 8       | 4         | 19.42                   | 19.52        | 19.48        | 20.00         |
|           |            | 8       | 7         | 19.46                   | 19.46        | 19.40        | 20.00         |
|           |            | 15      | 0         | 19.38                   | 19.47        | 19.37        | 20.00         |
|           | 64QAM      | 1       | 0         | 19.50                   | 19.47        | 19.53        | 20.00         |
|           |            | 1       | 7         | 19.47                   | 19.42        | 19.43        | 20.00         |
|           |            | 1       | 14        | 19.41                   | 19.42        | 19.48        | 20.00         |
|           |            | 8       | 0         | 19.48                   | 19.42        | 19.43        | 20.00         |
|           |            | 8       | 4         | 19.56                   | 19.59        | 19.56        | 20.00         |
|           |            | 8       | 7         | 19.30                   | 19.28        | 19.41        | 20.00         |
|           |            | 15      | 0         | 19.38                   | 19.50        | 19.47        | 20.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |              |              | Tune-up Limit |
|           |            |         |           | 19975/1712.5            | 20175/1732.5 | 20375/1752.5 |               |
| 5MHz      | QPSK       | 1       | 0         | 19.45                   | 19.64        | 19.53        | 20.00         |
|           |            | 1       | 13        | 19.46                   | 19.42        | 19.45        | 20.00         |
|           |            | 1       | 24        | 19.55                   | 19.51        | 19.50        | 20.00         |
|           |            | 12      | 0         | 19.56                   | 19.58        | 19.51        | 20.00         |
|           |            | 12      | 6         | 19.53                   | 19.60        | 19.55        | 20.00         |
|           |            | 12      | 13        | 19.59                   | 19.51        | 19.44        | 20.00         |

|           | 16QAM      | 25      | 0         | 19.54                   | 19.58        | 19.44        | 20.00         |
|-----------|------------|---------|-----------|-------------------------|--------------|--------------|---------------|
|           |            | 1       | 0         | 19.53                   | 19.76        | 19.71        | 20.00         |
|           |            | 1       | 13        | 19.74                   | 19.66        | 19.55        | 20.00         |
|           |            | 1       | 24        | 19.81                   | 19.63        | 19.57        | 20.00         |
|           |            | 12      | 0         | 19.35                   | 19.47        | 19.45        | 20.00         |
|           |            | 12      | 6         | 19.39                   | 19.47        | 19.44        | 20.00         |
|           |            | 12      | 13        | 19.43                   | 19.41        | 19.36        | 20.00         |
|           |            | 25      | 0         | 19.36                   | 19.43        | 19.32        | 20.00         |
|           | 64QAM      | 1       | 0         | 19.47                   | 19.43        | 19.50        | 20.00         |
|           |            | 1       | 13        | 19.44                   | 19.40        | 19.40        | 20.00         |
|           |            | 1       | 24        | 19.38                   | 19.40        | 19.44        | 20.00         |
|           |            | 12      | 0         | 19.46                   | 19.38        | 19.40        | 20.00         |
|           |            | 12      | 6         | 19.53                   | 19.54        | 19.52        | 20.00         |
|           |            | 12      | 13        | 19.27                   | 19.23        | 19.37        | 20.00         |
|           |            | 25      | 0         | 19.36                   | 19.46        | 19.42        | 20.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |              |              | Tune-up Limit |
|           |            |         |           | 20000/1715              | 20175/1732.5 | 20350/1750   |               |
| 10MHz     | QPSK       | 1       | 0         | 19.46                   | 19.63        | 19.55        | 20.00         |
|           |            | 1       | 25        | 19.47                   | 19.46        | 19.47        | 20.00         |
|           |            | 1       | 49        | 19.56                   | 19.53        | 19.52        | 20.00         |
|           |            | 25      | 0         | 19.57                   | 19.62        | 19.53        | 20.00         |
|           |            | 25      | 13        | 19.55                   | 19.63        | 19.58        | 20.00         |
|           |            | 25      | 25        | 19.59                   | 19.51        | 19.48        | 20.00         |
|           |            | 50      | 0         | 19.54                   | 19.59        | 19.45        | 20.00         |
|           | 16QAM      | 1       | 0         | 19.52                   | 19.74        | 19.71        | 20.00         |
|           |            | 1       | 25        | 19.76                   | 19.69        | 19.53        | 20.00         |
|           |            | 1       | 49        | 19.82                   | 19.61        | 19.59        | 20.00         |
|           |            | 25      | 0         | 19.33                   | 19.51        | 19.46        | 20.00         |
|           |            | 25      | 13        | 19.38                   | 19.46        | 19.45        | 20.00         |
|           |            | 25      | 25        | 19.45                   | 19.45        | 19.35        | 20.00         |
|           |            | 50      | 0         | 19.35                   | 19.45        | 19.32        | 20.00         |
|           | 64QAM      | 1       | 0         | 19.47                   | 19.42        | 19.51        | 20.00         |
|           |            | 1       | 25        | 19.46                   | 19.42        | 19.40        | 20.00         |
|           |            | 1       | 49        | 19.38                   | 19.37        | 19.45        | 20.00         |
|           |            | 25      | 0         | 19.48                   | 19.42        | 19.39        | 20.00         |
|           |            | 25      | 13        | 19.51                   | 19.55        | 19.51        | 20.00         |
|           |            | 25      | 25        | 19.28                   | 19.24        | 19.40        | 20.00         |
|           |            | 50      | 0         | 19.38                   | 19.49        | 19.43        | 20.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |              |              | Tune-up Limit |
|           |            |         |           | 20025/1717.5            | 20175/1732.5 | 20325/1747.5 |               |
| 15MHz     | QPSK       | 1       | 0         | 19.46                   | 19.61        | 19.54        | 20.00         |
|           |            | 1       | 38        | 19.47                   | 19.46        | 19.46        | 20.00         |
|           |            | 1       | 74        | 19.54                   | 19.50        | 19.49        | 20.00         |

|           |            | 36      | 0         | 19.57                   | 19.59        | 19.52      | 20.00         |
|-----------|------------|---------|-----------|-------------------------|--------------|------------|---------------|
|           |            | 36      | 18        | 19.53                   | 19.60        | 19.55      | 20.00         |
|           |            | 36      | 39        | 19.58                   | 19.52        | 19.45      | 20.00         |
|           |            | 75      | 0         | 19.57                   | 19.56        | 19.43      | 20.00         |
|           | 16QAM      | 1       | 0         | 19.50                   | 19.77        | 19.71      | 20.00         |
|           |            | 1       | 38        | 19.75                   | 19.67        | 19.56      | 20.00         |
|           |            | 1       | 74        | 19.81                   | 19.61        | 19.57      | 20.00         |
|           |            | 36      | 0         | 19.35                   | 19.50        | 19.46      | 20.00         |
|           |            | 36      | 18        | 19.38                   | 19.46        | 19.43      | 20.00         |
|           |            | 36      | 39        | 19.44                   | 19.42        | 19.37      | 20.00         |
|           |            | 75      | 0         | 19.36                   | 19.43        | 19.32      | 20.00         |
|           | 64QAM      | 1       | 0         | 19.44                   | 19.44        | 19.50      | 20.00         |
|           |            | 1       | 38        | 19.45                   | 19.41        | 19.41      | 20.00         |
|           |            | 1       | 74        | 19.38                   | 19.38        | 19.44      | 20.00         |
|           |            | 36      | 0         | 19.46                   | 19.41        | 19.41      | 20.00         |
|           |            | 36      | 18        | 19.52                   | 19.53        | 19.51      | 20.00         |
|           |            | 36      | 39        | 19.28                   | 19.24        | 19.38      | 20.00         |
|           |            | 75      | 0         | 19.36                   | 19.46        | 19.42      | 20.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |              |            | Tune-up Limit |
|           |            |         |           | 20050/1720              | 20175/1732.5 | 20300/1745 |               |
| 20MHz     | QPSK       | 1       | 0         | 19.43                   | 19.57        | 19.51      | 20.00         |
|           |            | 1       | 50        | 19.46                   | 19.42        | 19.44      | 20.00         |
|           |            | 1       | 99        | 19.52                   | 19.49        | 19.46      | 20.00         |
|           |            | 50      | 0         | 19.54                   | 19.54        | 19.48      | 20.00         |
|           |            | 50      | 25        | 19.51                   | 19.56        | 19.52      | 20.00         |
|           |            | 50      | 50        | 19.55                   | 19.47        | 19.41      | 20.00         |
|           |            | 100     | 0         | 19.54                   | 19.51        | 19.39      | 20.00         |
|           | 16QAM      | 1       | 0         | 19.48                   | 19.73        | 19.66      | 20.00         |
|           |            | 1       | 50        | 19.71                   | 19.65        | 19.52      | 20.00         |
|           |            | 1       | 99        | 19.79                   | 19.58        | 19.55      | 20.00         |
|           |            | 50      | 0         | 19.32                   | 19.46        | 19.43      | 20.00         |
|           |            | 50      | 25        | 19.35                   | 19.44        | 19.40      | 20.00         |
|           |            | 50      | 50        | 19.41                   | 19.37        | 19.33      | 20.00         |
|           |            | 100     | 0         | 19.34                   | 19.39        | 19.29      | 20.00         |
|           | 64QAM      | 1       | 0         | 19.42                   | 19.40        | 19.45      | 20.00         |
|           |            | 1       | 50        | 19.41                   | 19.39        | 19.37      | 20.00         |
|           |            | 1       | 99        | 19.36                   | 19.35        | 19.42      | 20.00         |
|           |            | 50      | 0         | 19.43                   | 19.37        | 19.38      | 20.00         |
|           |            | 50      | 25        | 19.49                   | 19.51        | 19.48      | 20.00         |
|           |            | 50      | 50        | 19.25                   | 19.19        | 19.34      | 20.00         |
|           |            | 100     | 0         | 19.34                   | 19.42        | 19.39      | 20.00         |

| LTE FDD Band 5<br>(Receiver on)<br>(Receiver off+SAR sensor on Level D1&D2)<br>(Receiver off+SAR sensor on Level D3)<br>(Receiver off+SAR sensor on Level D7)<br>(Sensor off+Hotspot off) |            |         |           | Conducted Power(dBm)    |             |             | Tune-up<br>Limit |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------|-----------|-------------------------|-------------|-------------|------------------|
| Bandwidth                                                                                                                                                                                 | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             |                  |
|                                                                                                                                                                                           |            |         |           | 20407/824.7             | 20525/836.5 | 20643/848.3 |                  |
| 1.4MHz                                                                                                                                                                                    | QPSK       | 1       | 0         | 24.14                   | 24.12       | 23.97       | 25.00            |
|                                                                                                                                                                                           |            | 1       | 2         | 24.02                   | 24.19       | 24.01       | 25.00            |
|                                                                                                                                                                                           |            | 1       | 5         | 23.98                   | 23.93       | 24.03       | 25.00            |
|                                                                                                                                                                                           |            | 3       | 0         | 22.96                   | 22.94       | 22.98       | 24.00            |
|                                                                                                                                                                                           |            | 3       | 2         | 22.92                   | 22.87       | 22.88       | 24.00            |
|                                                                                                                                                                                           |            | 3       | 3         | 22.87                   | 22.97       | 22.86       | 24.00            |
|                                                                                                                                                                                           |            | 6       | 0         | 23.06                   | 22.93       | 23.11       | 24.00            |
|                                                                                                                                                                                           | 16QAM      | 1       | 0         | 23.54                   | 23.23       | 23.37       | 24.00            |
|                                                                                                                                                                                           |            | 1       | 2         | 23.41                   | 23.38       | 23.15       | 24.00            |
|                                                                                                                                                                                           |            | 1       | 5         | 23.33                   | 23.16       | 23.32       | 24.00            |
|                                                                                                                                                                                           |            | 3       | 0         | 22.06                   | 21.97       | 21.98       | 23.00            |
|                                                                                                                                                                                           |            | 3       | 2         | 22.04                   | 21.86       | 21.90       | 23.00            |
|                                                                                                                                                                                           |            | 3       | 3         | 22.04                   | 21.89       | 21.80       | 23.00            |
|                                                                                                                                                                                           |            | 6       | 0         | 21.86                   | 21.87       | 22.04       | 23.00            |
|                                                                                                                                                                                           | 64QAM      | 1       | 0         | 22.03                   | 21.92       | 21.91       | 23.00            |
|                                                                                                                                                                                           |            | 1       | 2         | 21.91                   | 21.97       | 21.95       | 23.00            |
|                                                                                                                                                                                           |            | 1       | 5         | 22.05                   | 22.09       | 22.06       | 23.00            |
|                                                                                                                                                                                           |            | 3       | 0         | 21.56                   | 21.43       | 21.42       | 22.00            |
|                                                                                                                                                                                           |            | 3       | 2         | 21.35                   | 21.49       | 21.54       | 22.00            |
|                                                                                                                                                                                           |            | 3       | 3         | 21.53                   | 21.47       | 21.30       | 22.00            |
|                                                                                                                                                                                           |            | 6       | 0         | 21.10                   | 21.16       | 21.15       | 22.00            |
| Bandwidth                                                                                                                                                                                 | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up<br>Limit |
|                                                                                                                                                                                           |            |         |           | 20415/825.5             | 20525/836.5 | 20635/847.5 |                  |
| 3MHz                                                                                                                                                                                      | QPSK       | 1       | 0         | 24.16                   | 24.04       | 24.02       | 25.00            |
|                                                                                                                                                                                           |            | 1       | 7         | 24.02                   | 24.21       | 24.05       | 25.00            |
|                                                                                                                                                                                           |            | 1       | 14        | 24.03                   | 23.98       | 24.07       | 25.00            |
|                                                                                                                                                                                           |            | 8       | 0         | 23.00                   | 23.01       | 23.05       | 24.00            |
|                                                                                                                                                                                           |            | 8       | 4         | 22.95                   | 22.95       | 22.94       | 24.00            |
|                                                                                                                                                                                           |            | 8       | 7         | 22.91                   | 23.02       | 22.90       | 24.00            |
|                                                                                                                                                                                           |            | 15      | 0         | 23.08                   | 22.97       | 23.14       | 24.00            |
|                                                                                                                                                                                           | 16QAM      | 1       | 0         | 23.57                   | 23.25       | 23.40       | 24.00            |
|                                                                                                                                                                                           |            | 1       | 7         | 23.44                   | 23.40       | 23.19       | 24.00            |
|                                                                                                                                                                                           |            | 1       | 14        | 23.35                   | 23.20       | 23.35       | 24.00            |
|                                                                                                                                                                                           |            | 8       | 0         | 22.11                   | 22.04       | 22.01       | 23.00            |
|                                                                                                                                                                                           |            | 8       | 4         | 22.09                   | 21.93       | 21.96       | 23.00            |

|           |            | 8       | 7         | 22.08                   | 21.95       | 21.87       | 23.00         |
|-----------|------------|---------|-----------|-------------------------|-------------|-------------|---------------|
|           |            | 15      | 0         | 21.89                   | 21.91       | 22.07       | 23.00         |
|           | 64QAM      | 1       | 0         | 22.06                   | 21.94       | 22.03       | 23.00         |
|           |            | 1       | 7         | 21.94                   | 21.99       | 21.99       | 23.00         |
|           |            | 1       | 14        | 22.07                   | 22.13       | 22.09       | 23.00         |
|           |            | 8       | 0         | 21.61                   | 21.47       | 21.45       | 22.00         |
|           |            | 8       | 4         | 21.40                   | 21.56       | 21.60       | 22.00         |
|           |            | 8       | 7         | 21.57                   | 21.53       | 21.37       | 22.00         |
|           |            | 15      | 0         | 21.12                   | 21.22       | 21.20       | 22.00         |
|           |            |         |           |                         |             |             |               |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up Limit |
|           |            |         |           | 20425/826.5             | 20525/836.5 | 20625/846.5 |               |
| 5MHz      | QPSK       | 1       | 0         | 24.13                   | 24.02       | 23.96       | 25.00         |
|           |            | 1       | 13        | 24.05                   | 24.17       | 24.02       | 25.00         |
|           |            | 1       | 24        | 24.02                   | 23.93       | 24.03       | 25.00         |
|           |            | 12      | 0         | 22.97                   | 22.96       | 23.01       | 24.00         |
|           |            | 12      | 6         | 22.93                   | 22.91       | 22.89       | 24.00         |
|           |            | 12      | 13        | 22.89                   | 23.01       | 22.86       | 24.00         |
|           |            | 25      | 0         | 23.06                   | 22.96       | 23.12       | 24.00         |
|           | 16QAM      | 1       | 0         | 23.54                   | 23.21       | 23.37       | 24.00         |
|           |            | 1       | 13        | 23.41                   | 23.38       | 23.16       | 24.00         |
|           |            | 1       | 24        | 23.32                   | 23.18       | 23.31       | 24.00         |
|           |            | 12      | 0         | 22.09                   | 21.92       | 21.98       | 23.00         |
|           |            | 12      | 6         | 22.06                   | 21.88       | 21.92       | 23.00         |
|           |            | 12      | 13        | 22.05                   | 21.90       | 21.83       | 23.00         |
|           |            | 25      | 0         | 21.87                   | 21.87       | 22.02       | 23.00         |
|           | 64QAM      | 1       | 0         | 22.03                   | 21.90       | 21.94       | 23.00         |
|           |            | 1       | 13        | 21.91                   | 21.97       | 21.96       | 23.00         |
|           |            | 1       | 24        | 22.04                   | 22.11       | 22.05       | 23.00         |
|           |            | 12      | 0         | 21.59                   | 21.43       | 21.42       | 22.00         |
|           |            | 12      | 6         | 21.37                   | 21.51       | 21.56       | 22.00         |
|           |            | 12      | 13        | 21.54                   | 21.48       | 21.33       | 22.00         |
|           |            | 25      | 0         | 21.10                   | 21.18       | 21.15       | 22.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up Limit |
|           |            |         |           | 20450/829               | 20525/836.5 | 20600/844   |               |
| 10MHz     | QPSK       | 1       | 0         | 24.11                   | 23.95       | 23.94       | 25.00         |
|           |            | 1       | 25        | 24.00                   | 24.17       | 24.01       | 25.00         |
|           |            | 1       | 49        | 23.97                   | 23.91       | 23.99       | 25.00         |
|           |            | 25      | 0         | 22.95                   | 22.92       | 22.98       | 24.00         |
|           |            | 25      | 13        | 22.91                   | 22.87       | 22.86       | 24.00         |
|           |            | 25      | 25        | 22.85                   | 22.96       | 22.83       | 24.00         |
|           |            | 50      | 0         | 23.06                   | 22.89       | 23.07       | 24.00         |
|           | 16QAM      | 1       | 0         | 23.49                   | 23.18       | 23.32       | 24.00         |
|           |            | 1       | 25        | 23.38                   | 23.37       | 23.13       | 24.00         |



|  |       |    |    |       |       |       |       |
|--|-------|----|----|-------|-------|-------|-------|
|  |       | 1  | 49 | 23.30 | 23.13 | 23.29 | 24.00 |
|  |       | 25 | 0  | 22.06 | 21.99 | 21.96 | 23.00 |
|  |       | 25 | 13 | 22.02 | 21.85 | 21.88 | 23.00 |
|  |       | 25 | 25 | 22.03 | 21.86 | 21.80 | 23.00 |
|  |       | 50 | 0  | 21.85 | 21.83 | 21.99 | 23.00 |
|  | 64QAM | 1  | 0  | 21.98 | 21.87 | 21.95 | 23.00 |
|  |       | 1  | 25 | 21.88 | 21.96 | 21.93 | 23.00 |
|  |       | 1  | 49 | 22.02 | 22.06 | 22.03 | 23.00 |
|  |       | 25 | 0  | 21.56 | 21.42 | 21.40 | 22.00 |
|  |       | 25 | 13 | 21.33 | 21.48 | 21.52 | 22.00 |
|  |       | 25 | 25 | 21.52 | 21.44 | 21.30 | 22.00 |
|  |       | 50 | 0  | 21.08 | 21.14 | 21.12 | 22.00 |

| LTE FDD Band 5<br>(Hotspot on+Receiver on)<br>(Hotspot on+Receiver off+SAR sensor on Level D1&D2)<br>(Hotspot on+Receiver off+SAR sensor on Level D3)<br>(Hotspot on+Receiver off+SAR sensor on Level D7)<br>(sensor off+hotspot on) |            |         |           | Conducted Power(dBm)    |             |             | Tune-up<br>Limit |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------|-----------|-------------------------|-------------|-------------|------------------|
| Bandwidth                                                                                                                                                                                                                            | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             |                  |
|                                                                                                                                                                                                                                      |            |         |           | 20407/824.7             | 20525/836.5 | 20643/848.3 |                  |
| 1.4MHz                                                                                                                                                                                                                               | QPSK       | 1       | 0         | 22.49                   | 22.77       | 22.74       | 24.00            |
|                                                                                                                                                                                                                                      |            | 1       | 2         | 22.62                   | 22.57       | 22.52       | 24.00            |
|                                                                                                                                                                                                                                      |            | 1       | 5         | 22.45                   | 22.50       | 22.49       | 24.00            |
|                                                                                                                                                                                                                                      |            | 3       | 0         | 22.65                   | 22.60       | 22.63       | 24.00            |
|                                                                                                                                                                                                                                      |            | 3       | 2         | 22.56                   | 22.51       | 22.62       | 24.00            |
|                                                                                                                                                                                                                                      |            | 3       | 3         | 22.56                   | 22.54       | 22.38       | 24.00            |
|                                                                                                                                                                                                                                      |            | 6       | 0         | 22.63                   | 22.68       | 22.70       | 24.00            |
|                                                                                                                                                                                                                                      | 16QAM      | 1       | 0         | 22.74                   | 22.83       | 22.79       | 24.00            |
|                                                                                                                                                                                                                                      |            | 1       | 2         | 22.68                   | 22.75       | 22.70       | 24.00            |
|                                                                                                                                                                                                                                      |            | 1       | 5         | 22.60                   | 22.69       | 22.67       | 24.00            |
|                                                                                                                                                                                                                                      |            | 3       | 0         | 21.55                   | 21.57       | 21.52       | 24.00            |
|                                                                                                                                                                                                                                      |            | 3       | 2         | 21.54                   | 21.45       | 21.58       | 24.00            |
|                                                                                                                                                                                                                                      |            | 3       | 3         | 21.40                   | 21.63       | 21.43       | 24.00            |
|                                                                                                                                                                                                                                      |            | 6       | 0         | 21.55                   | 21.62       | 21.54       | 23.00            |
|                                                                                                                                                                                                                                      | 64QAM      | 1       | 0         | 22.50                   | 22.80       | 22.55       | 23.00            |
|                                                                                                                                                                                                                                      |            | 1       | 2         | 22.50                   | 22.39       | 22.54       | 23.00            |
|                                                                                                                                                                                                                                      |            | 1       | 5         | 22.55                   | 22.42       | 22.46       | 23.00            |
|                                                                                                                                                                                                                                      |            | 3       | 0         | 21.52                   | 21.40       | 21.50       | 23.00            |
|                                                                                                                                                                                                                                      |            | 3       | 2         | 21.55                   | 21.46       | 21.56       | 23.00            |
|                                                                                                                                                                                                                                      |            | 3       | 3         | 21.55                   | 21.40       | 21.41       | 23.00            |
|                                                                                                                                                                                                                                      |            | 6       | 0         | 21.47                   | 21.44       | 21.48       | 22.00            |

| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up Limit |
|-----------|------------|---------|-----------|-------------------------|-------------|-------------|---------------|
|           |            |         |           | 20415/825.5             | 20525/836.5 | 20635/847.5 |               |
| 3MHz      | QPSK       | 1       | 0         | 22.51                   | 22.81       | 22.77       | 24.00         |
|           |            | 1       | 7         | 22.65                   | 22.62       | 22.56       | 24.00         |
|           |            | 1       | 14        | 22.48                   | 22.55       | 22.53       | 24.00         |
|           |            | 8       | 0         | 22.73                   | 22.70       | 22.74       | 24.00         |
|           |            | 8       | 4         | 22.66                   | 22.59       | 22.72       | 24.00         |
|           |            | 8       | 7         | 22.64                   | 22.63       | 22.46       | 24.00         |
|           |            | 15      | 0         | 22.66                   | 22.72       | 22.73       | 24.00         |
|           | 16QAM      | 1       | 0         | 22.77                   | 22.85       | 22.82       | 24.00         |
|           |            | 1       | 7         | 22.71                   | 22.80       | 22.74       | 24.00         |
|           |            | 1       | 14        | 22.62                   | 22.73       | 22.70       | 24.00         |
|           |            | 8       | 0         | 21.64                   | 21.68       | 21.62       | 23.00         |
|           |            | 8       | 4         | 21.63                   | 21.56       | 21.68       | 23.00         |
|           |            | 8       | 7         | 21.48                   | 21.73       | 21.54       | 23.00         |
|           |            | 15      | 0         | 21.58                   | 21.66       | 21.57       | 23.00         |
|           | 64QAM      | 1       | 0         | 22.53                   | 22.82       | 22.58       | 23.00         |
|           |            | 1       | 7         | 22.53                   | 22.44       | 22.58       | 23.00         |
|           |            | 1       | 14        | 22.57                   | 22.46       | 22.49       | 23.00         |
|           |            | 8       | 0         | 21.61                   | 21.51       | 21.60       | 22.00         |
|           |            | 8       | 4         | 21.64                   | 21.57       | 21.66       | 22.00         |
|           |            | 8       | 7         | 21.63                   | 21.50       | 21.52       | 22.00         |
|           |            | 15      | 0         | 21.50                   | 21.48       | 21.51       | 22.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up Limit |
|           |            |         |           | 20425/826.5             | 20525/836.5 | 20625/846.5 |               |
| 5MHz      | QPSK       | 1       | 0         | 22.48                   | 22.79       | 22.73       | 24.00         |
|           |            | 1       | 13        | 22.63                   | 22.58       | 22.53       | 24.00         |
|           |            | 1       | 24        | 22.45                   | 22.50       | 22.49       | 24.00         |
|           |            | 12      | 0         | 22.70                   | 22.65       | 22.70       | 24.00         |
|           |            | 12      | 6         | 22.64                   | 22.55       | 22.67       | 24.00         |
|           |            | 12      | 13        | 22.62                   | 22.61       | 22.42       | 24.00         |
|           |            | 25      | 0         | 22.64                   | 22.71       | 22.71       | 24.00         |
|           | 16QAM      | 1       | 0         | 22.74                   | 22.81       | 22.79       | 24.00         |
|           |            | 1       | 13        | 22.68                   | 22.78       | 22.71       | 24.00         |
|           |            | 1       | 24        | 22.59                   | 22.71       | 22.66       | 24.00         |
|           |            | 12      | 0         | 21.62                   | 21.64       | 21.59       | 23.00         |
|           |            | 12      | 6         | 21.60                   | 21.51       | 21.64       | 23.00         |
|           |            | 12      | 13        | 21.45                   | 21.68       | 21.50       | 23.00         |
|           |            | 25      | 0         | 21.56                   | 21.62       | 21.52       | 23.00         |
|           | 64QAM      | 1       | 0         | 22.50                   | 22.78       | 22.55       | 23.00         |
|           |            | 1       | 13        | 22.50                   | 22.42       | 22.55       | 23.00         |
|           |            | 1       | 24        | 22.54                   | 22.44       | 22.45       | 23.00         |
|           |            | 12      | 0         | 21.59                   | 21.47       | 21.57       | 22.00         |

|           |            | 12      | 6         | 21.61                   | 21.52       | 21.62     | 22.00         |
|-----------|------------|---------|-----------|-------------------------|-------------|-----------|---------------|
|           |            | 12      | 13        | 21.60                   | 21.45       | 21.48     | 22.00         |
|           |            | 25      | 0         | 21.48                   | 21.44       | 21.46     | 22.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |           | Tune-up Limit |
|           |            |         |           | 20450/829               | 20525/836.5 | 20600/844 |               |
| 10MHz     | QPSK       | 1       | 0         | 22.46                   | 22.72       | 22.71     | 24.00         |
|           |            | 1       | 25        | 22.63                   | 22.58       | 22.52     | 24.00         |
|           |            | 1       | 49        | 22.42                   | 22.48       | 22.45     | 24.00         |
|           |            | 25      | 0         | 22.68                   | 22.61       | 22.67     | 24.00         |
|           |            | 25      | 13        | 22.62                   | 22.51       | 22.64     | 24.00         |
|           |            | 25      | 25        | 22.58                   | 22.57       | 22.39     | 24.00         |
|           |            | 50      | 0         | 22.67                   | 22.64       | 22.66     | 24.00         |
|           | 16QAM      | 1       | 0         | 22.69                   | 22.78       | 22.74     | 24.00         |
|           |            | 1       | 25        | 22.65                   | 22.77       | 22.68     | 24.00         |
|           |            | 1       | 49        | 22.57                   | 22.66       | 22.64     | 24.00         |
|           |            | 25      | 0         | 21.59                   | 21.63       | 21.57     | 23.00         |
|           |            | 25      | 13        | 21.56                   | 21.48       | 21.60     | 23.00         |
|           |            | 25      | 25        | 21.43                   | 21.64       | 21.47     | 23.00         |
|           |            | 50      | 0         | 21.54                   | 21.58       | 21.49     | 23.00         |
|           | 64QAM      | 1       | 0         | 22.45                   | 22.75       | 22.50     | 23.00         |
|           |            | 1       | 25        | 22.47                   | 22.41       | 22.52     | 23.00         |
|           |            | 1       | 49        | 22.52                   | 22.39       | 22.43     | 23.00         |
|           |            | 25      | 0         | 21.56                   | 21.46       | 21.55     | 22.00         |
|           |            | 25      | 13        | 21.57                   | 21.49       | 21.58     | 22.00         |
|           |            | 25      | 25        | 21.58                   | 21.41       | 21.45     | 22.00         |
|           |            | 50      | 0         | 21.46                   | 21.40       | 21.43     | 22.00         |

| LTE FDD Band 7<br>(Receiver on)<br>(Receiver off+SAR sensor on Level D7)<br>(Sensor off+Hotspot off) |            |         |           | Conducted Power(dBm)    |            |              | Tune-up<br>Limit |
|------------------------------------------------------------------------------------------------------|------------|---------|-----------|-------------------------|------------|--------------|------------------|
| Bandwidth                                                                                            | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              |                  |
|                                                                                                      |            |         |           | 20775/2502.5            | 21100/2535 | 21425/2567.5 |                  |
| 5MHz                                                                                                 | QPSK       | 1       | 0         | 22.89                   | 22.96      | 23.15        | 24.00            |
|                                                                                                      |            | 1       | 13        | 22.93                   | 22.84      | 22.96        | 24.00            |
|                                                                                                      |            | 1       | 24        | 23.01                   | 23.23      | 22.22        | 24.00            |
|                                                                                                      |            | 12      | 0         | 21.73                   | 22.02      | 22.06        | 23.00            |
|                                                                                                      |            | 12      | 6         | 21.78                   | 21.90      | 21.99        | 23.00            |
|                                                                                                      |            | 12      | 13        | 21.85                   | 22.12      | 22.12        | 23.00            |
|                                                                                                      |            | 25      | 0         | 21.92                   | 22.02      | 22.21        | 23.00            |
|                                                                                                      | 16QAM      | 1       | 0         | 22.19                   | 22.26      | 22.43        | 23.00            |
|                                                                                                      |            | 1       | 13        | 22.26                   | 22.17      | 22.16        | 23.00            |
|                                                                                                      |            | 1       | 24        | 22.34                   | 22.48      | 22.26        | 23.00            |

|           |            | 12      | 0         | 20.72                   | 20.95      | 21.08        | 22.00         |
|-----------|------------|---------|-----------|-------------------------|------------|--------------|---------------|
|           |            | 12      | 6         | 20.76                   | 21.00      | 21.05        | 22.00         |
|           |            | 12      | 13        | 20.83                   | 21.05      | 21.00        | 22.00         |
|           |            | 25      | 0         | 20.89                   | 21.07      | 21.12        | 22.00         |
|           | 64QAM      | 1       | 0         | 21.81                   | 21.86      | 21.95        | 22.00         |
|           |            | 1       | 13        | 21.64                   | 21.76      | 21.95        | 22.00         |
|           |            | 1       | 24        | 21.69                   | 21.86      | 21.55        | 22.00         |
|           |            | 12      | 0         | 20.72                   | 20.96      | 20.99        | 21.00         |
|           |            | 12      | 6         | 20.71                   | 20.84      | 20.90        | 21.00         |
|           |            | 12      | 13        | 20.83                   | 20.92      | 20.96        | 21.00         |
|           |            | 25      | 0         | 20.87                   | 20.97      | 20.98        | 21.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 20800/2505              | 21100/2535 | 21400/2565   |               |
| 10MHz     | QPSK       | 1       | 0         | 22.90                   | 22.95      | 23.17        | 24.00         |
|           |            | 1       | 25        | 22.94                   | 22.88      | 22.98        | 24.00         |
|           |            | 1       | 49        | 23.02                   | 23.25      | 22.24        | 24.00         |
|           |            | 25      | 0         | 21.74                   | 22.06      | 22.08        | 23.00         |
|           |            | 25      | 13        | 21.80                   | 21.93      | 22.02        | 23.00         |
|           |            | 25      | 25        | 21.85                   | 22.12      | 22.16        | 23.00         |
|           |            | 50      | 0         | 21.92                   | 22.03      | 22.22        | 23.00         |
|           | 16QAM      | 1       | 0         | 22.18                   | 22.24      | 22.43        | 23.00         |
|           |            | 1       | 25        | 22.28                   | 22.20      | 22.14        | 23.00         |
|           |            | 1       | 49        | 22.35                   | 22.46      | 22.28        | 23.00         |
|           |            | 25      | 0         | 20.70                   | 20.99      | 21.09        | 22.00         |
|           |            | 25      | 13        | 20.75                   | 20.99      | 21.06        | 22.00         |
|           |            | 25      | 25        | 20.85                   | 21.09      | 20.99        | 22.00         |
|           |            | 50      | 0         | 20.88                   | 21.09      | 21.12        | 22.00         |
|           | 64QAM      | 1       | 0         | 21.81                   | 21.85      | 21.96        | 22.00         |
|           |            | 1       | 25        | 21.66                   | 21.78      | 21.95        | 22.00         |
|           |            | 1       | 49        | 21.69                   | 21.83      | 21.56        | 22.00         |
|           |            | 25      | 0         | 20.74                   | 21.00      | 20.98        | 21.00         |
|           |            | 25      | 13        | 20.69                   | 20.85      | 20.89        | 21.00         |
|           |            | 25      | 25        | 20.84                   | 20.93      | 20.99        | 21.00         |
|           |            | 50      | 0         | 20.89                   | 21.00      | 20.99        | 21.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 20825/2507.5            | 21100/2535 | 21375/2562.5 |               |
| 15MHz     | QPSK       | 1       | 0         | 22.90                   | 22.93      | 23.16        | 24.00         |
|           |            | 1       | 38        | 22.94                   | 22.88      | 22.97        | 24.00         |
|           |            | 1       | 74        | 23.00                   | 23.22      | 22.21        | 24.00         |
|           |            | 36      | 0         | 21.74                   | 22.03      | 22.07        | 23.00         |
|           |            | 36      | 18        | 21.78                   | 21.90      | 21.99        | 23.00         |
|           |            | 36      | 39        | 21.84                   | 22.13      | 22.13        | 23.00         |
|           |            | 75      | 0         | 21.95                   | 22.00      | 22.20        | 23.00         |

|           | 16QAM      | 1       | 0         | 22.16                   | 22.27      | 22.43      | 23.00         |
|-----------|------------|---------|-----------|-------------------------|------------|------------|---------------|
|           |            | 1       | 38        | 22.27                   | 22.18      | 22.17      | 23.00         |
|           |            | 1       | 74        | 22.34                   | 22.46      | 22.26      | 23.00         |
|           |            | 36      | 0         | 20.72                   | 20.98      | 21.09      | 22.00         |
|           |            | 36      | 18        | 20.75                   | 20.99      | 21.04      | 22.00         |
|           |            | 36      | 39        | 20.84                   | 21.06      | 21.01      | 22.00         |
|           |            | 75      | 0         | 20.89                   | 21.07      | 21.12      | 22.00         |
|           | 64QAM      | 1       | 0         | 21.78                   | 21.87      | 21.95      | 22.00         |
|           |            | 1       | 38        | 21.65                   | 21.77      | 21.96      | 22.00         |
|           |            | 1       | 74        | 21.69                   | 21.84      | 21.55      | 22.00         |
|           |            | 36      | 0         | 20.72                   | 20.99      | 21.00      | 21.00         |
|           |            | 36      | 18        | 20.70                   | 20.83      | 20.89      | 21.00         |
|           |            | 36      | 39        | 20.84                   | 20.93      | 20.97      | 21.00         |
|           |            | 75      | 0         | 20.87                   | 20.97      | 20.98      | 21.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |            | Tune-up Limit |
|           |            |         |           | 20850/2510              | 21100/2535 | 21350/2560 |               |
| 20MHz     | QPSK       | 1       | 0         | 22.87                   | 22.89      | 23.13      | 24.00         |
|           |            | 1       | 50        | 22.93                   | 22.84      | 22.95      | 24.00         |
|           |            | 1       | 99        | 22.98                   | 23.21      | 22.18      | 24.00         |
|           |            | 50      | 0         | 21.71                   | 21.98      | 22.03      | 23.00         |
|           |            | 50      | 25        | 21.76                   | 21.86      | 21.96      | 23.00         |
|           |            | 50      | 50        | 21.81                   | 22.08      | 22.09      | 23.00         |
|           |            | 100     | 0         | 21.92                   | 21.95      | 22.16      | 23.00         |
|           | 16QAM      | 1       | 0         | 22.14                   | 22.23      | 22.38      | 23.00         |
|           |            | 1       | 50        | 22.23                   | 22.16      | 22.13      | 23.00         |
|           |            | 1       | 99        | 22.32                   | 22.43      | 22.24      | 23.00         |
|           |            | 50      | 0         | 20.69                   | 20.94      | 21.06      | 22.00         |
|           |            | 50      | 25        | 20.72                   | 20.97      | 21.01      | 22.00         |
|           |            | 50      | 50        | 20.81                   | 21.01      | 20.97      | 22.00         |
|           |            | 100     | 0         | 20.87                   | 21.03      | 21.09      | 22.00         |
|           | 64QAM      | 1       | 0         | 21.76                   | 21.83      | 21.90      | 22.00         |
|           |            | 1       | 50        | 21.61                   | 21.75      | 21.92      | 22.00         |
|           |            | 1       | 99        | 21.67                   | 21.81      | 21.53      | 22.00         |
|           |            | 50      | 0         | 20.69                   | 20.95      | 20.97      | 21.00         |
|           |            | 50      | 25        | 20.67                   | 20.81      | 20.86      | 21.00         |
|           |            | 50      | 50        | 20.81                   | 20.88      | 20.93      | 21.00         |
|           |            | 100     | 0         | 20.85                   | 20.93      | 20.95      | 21.00         |

| LTE FDD Band 7<br>(Hotspot on+Receiver on)<br>(Hotspot on+Receiver off+SAR sensor on Level D7)<br>(sensor off+hotspot on) |            |         |           | Conducted Power(dBm)    |            |              | Tune-up<br>Limit |
|---------------------------------------------------------------------------------------------------------------------------|------------|---------|-----------|-------------------------|------------|--------------|------------------|
| Bandwidth                                                                                                                 | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              |                  |
|                                                                                                                           |            |         |           | 20775/2502.5            | 21100/2535 | 21425/2567.5 |                  |
| 5MHz                                                                                                                      | QPSK       | 1       | 0         | 19.36                   | 19.58      | 19.64        | 20.50            |
|                                                                                                                           |            | 1       | 13        | 19.36                   | 19.48      | 19.51        | 20.50            |
|                                                                                                                           |            | 1       | 24        | 19.63                   | 19.77      | 19.68        | 20.50            |
|                                                                                                                           |            | 12      | 0         | 19.37                   | 19.52      | 19.75        | 20.50            |
|                                                                                                                           |            | 12      | 6         | 19.34                   | 19.54      | 19.54        | 20.50            |
|                                                                                                                           |            | 12      | 13        | 19.38                   | 19.59      | 19.53        | 20.50            |
|                                                                                                                           |            | 25      | 0         | 19.41                   | 19.59      | 19.71        | 20.50            |
|                                                                                                                           | 16QAM      | 1       | 0         | 19.83                   | 19.79      | 20.06        | 20.50            |
|                                                                                                                           |            | 1       | 13        | 19.80                   | 19.80      | 19.79        | 20.50            |
|                                                                                                                           |            | 1       | 24        | 20.05                   | 20.09      | 20.02        | 20.50            |
|                                                                                                                           |            | 12      | 0         | 19.34                   | 19.47      | 19.64        | 20.50            |
|                                                                                                                           |            | 12      | 6         | 19.32                   | 19.53      | 19.58        | 20.50            |
|                                                                                                                           |            | 12      | 13        | 19.29                   | 19.57      | 19.44        | 20.50            |
|                                                                                                                           |            | 25      | 0         | 19.35                   | 19.45      | 19.58        | 20.50            |
|                                                                                                                           | 64QAM      | 1       | 0         | 19.70                   | 19.57      | 19.62        | 20.50            |
|                                                                                                                           |            | 1       | 13        | 19.60                   | 19.52      | 19.51        | 20.50            |
|                                                                                                                           |            | 1       | 24        | 19.70                   | 19.48      | 19.47        | 20.50            |
|                                                                                                                           |            | 12      | 0         | 19.35                   | 19.29      | 19.32        | 20.50            |
|                                                                                                                           |            | 12      | 6         | 19.32                   | 19.34      | 19.26        | 20.50            |
|                                                                                                                           |            | 12      | 13        | 19.21                   | 19.19      | 19.19        | 20.50            |
|                                                                                                                           |            | 25      | 0         | 19.23                   | 19.20      | 19.17        | 20.50            |
| Bandwidth                                                                                                                 | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up<br>Limit |
|                                                                                                                           |            |         |           | 20800/2505              | 21100/2535 | 21400/2565   |                  |
| 10MHz                                                                                                                     | QPSK       | 1       | 0         | 19.37                   | 19.57      | 19.66        | 20.50            |
|                                                                                                                           |            | 1       | 25        | 19.37                   | 19.52      | 19.53        | 20.50            |
|                                                                                                                           |            | 1       | 49        | 19.64                   | 19.79      | 19.70        | 20.50            |
|                                                                                                                           |            | 25      | 0         | 19.38                   | 19.56      | 19.77        | 20.50            |
|                                                                                                                           |            | 25      | 13        | 19.36                   | 19.57      | 19.57        | 20.50            |
|                                                                                                                           |            | 25      | 25        | 19.38                   | 19.59      | 19.57        | 20.50            |
|                                                                                                                           |            | 50      | 0         | 19.41                   | 19.60      | 19.72        | 20.50            |
|                                                                                                                           | 16QAM      | 1       | 0         | 19.82                   | 19.77      | 20.06        | 20.50            |
|                                                                                                                           |            | 1       | 25        | 19.82                   | 19.83      | 19.77        | 20.50            |
|                                                                                                                           |            | 1       | 49        | 20.06                   | 20.07      | 20.04        | 20.50            |
|                                                                                                                           |            | 25      | 0         | 19.32                   | 19.51      | 19.65        | 20.50            |
|                                                                                                                           |            | 25      | 13        | 19.31                   | 19.52      | 19.59        | 20.50            |
|                                                                                                                           |            | 25      | 25        | 19.31                   | 19.61      | 19.43        | 20.50            |
|                                                                                                                           |            | 50      | 0         | 19.34                   | 19.47      | 19.58        | 20.50            |

|           | 64QAM      | 1       | 0         | 19.70                   | 19.56      | 19.63        | 20.50         |
|-----------|------------|---------|-----------|-------------------------|------------|--------------|---------------|
|           |            | 1       | 25        | 19.62                   | 19.54      | 19.51        | 20.50         |
|           |            | 1       | 49        | 19.70                   | 19.45      | 19.48        | 20.50         |
|           |            | 25      | 0         | 19.37                   | 19.33      | 19.31        | 20.50         |
|           |            | 25      | 13        | 19.30                   | 19.35      | 19.25        | 20.50         |
|           |            | 25      | 25        | 19.22                   | 19.20      | 19.22        | 20.50         |
|           |            | 50      | 0         | 19.25                   | 19.23      | 19.18        | 20.50         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 20825/2507.5            | 21100/2535 | 21375/2562.5 |               |
| 15MHz     | QPSK       | 1       | 0         | 19.37                   | 19.55      | 19.65        | 20.50         |
|           |            | 1       | 38        | 19.37                   | 19.52      | 19.52        | 20.50         |
|           |            | 1       | 74        | 19.62                   | 19.76      | 19.67        | 20.50         |
|           |            | 36      | 0         | 19.38                   | 19.53      | 19.76        | 20.50         |
|           |            | 36      | 18        | 19.34                   | 19.54      | 19.54        | 20.50         |
|           |            | 36      | 39        | 19.37                   | 19.60      | 19.54        | 20.50         |
|           |            | 75      | 0         | 19.44                   | 19.57      | 19.70        | 20.50         |
|           | 16QAM      | 1       | 0         | 19.80                   | 19.80      | 20.06        | 20.50         |
|           |            | 1       | 38        | 19.81                   | 19.81      | 19.80        | 20.50         |
|           |            | 1       | 74        | 20.05                   | 20.07      | 20.02        | 20.50         |
|           |            | 36      | 0         | 19.34                   | 19.50      | 19.65        | 20.50         |
|           |            | 36      | 18        | 19.31                   | 19.52      | 19.57        | 20.50         |
|           |            | 36      | 39        | 19.30                   | 19.58      | 19.45        | 20.50         |
|           |            | 75      | 0         | 19.35                   | 19.45      | 19.58        | 20.50         |
|           | 64QAM      | 1       | 0         | 19.67                   | 19.58      | 19.62        | 20.50         |
|           |            | 1       | 38        | 19.61                   | 19.53      | 19.52        | 20.50         |
|           |            | 1       | 74        | 19.70                   | 19.46      | 19.47        | 20.50         |
|           |            | 36      | 0         | 19.35                   | 19.32      | 19.33        | 20.50         |
|           |            | 36      | 18        | 19.31                   | 19.33      | 19.25        | 20.50         |
|           |            | 36      | 39        | 19.22                   | 19.20      | 19.20        | 20.50         |
|           |            | 75      | 0         | 19.23                   | 19.20      | 19.17        | 20.50         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 20850/2510              | 21100/2535 | 21350/2560   |               |
| 20MHz     | QPSK       | 1       | 0         | 19.34                   | 19.51      | 19.62        | 20.50         |
|           |            | 1       | 50        | 19.36                   | 19.48      | 19.50        | 20.50         |
|           |            | 1       | 99        | 19.60                   | 19.75      | 19.64        | 20.50         |
|           |            | 50      | 0         | 19.35                   | 19.48      | 19.72        | 20.50         |
|           |            | 50      | 25        | 19.32                   | 19.50      | 19.51        | 20.50         |
|           |            | 50      | 50        | 19.34                   | 19.55      | 19.50        | 20.50         |
|           |            | 100     | 0         | 19.41                   | 19.52      | 19.66        | 20.50         |
|           | 16QAM      | 1       | 0         | 19.78                   | 19.76      | 20.01        | 20.50         |
|           |            | 1       | 50        | 19.77                   | 19.79      | 19.76        | 20.50         |
|           |            | 1       | 99        | 20.03                   | 20.04      | 20.00        | 20.50         |
|           |            | 50      | 0         | 19.31                   | 19.46      | 19.62        | 20.50         |

|  |       |     |    |       |       |       |       |
|--|-------|-----|----|-------|-------|-------|-------|
|  |       | 50  | 25 | 19.28 | 19.50 | 19.54 | 20.50 |
|  |       | 50  | 50 | 19.27 | 19.53 | 19.41 | 20.50 |
|  |       | 100 | 0  | 19.33 | 19.41 | 19.55 | 20.50 |
|  | 64QAM | 1   | 0  | 19.65 | 19.54 | 19.57 | 20.50 |
|  |       | 1   | 50 | 19.57 | 19.51 | 19.48 | 20.50 |
|  |       | 1   | 99 | 19.68 | 19.43 | 19.45 | 20.50 |
|  |       | 50  | 0  | 19.32 | 19.28 | 19.30 | 20.50 |
|  |       | 50  | 25 | 19.28 | 19.31 | 19.22 | 20.50 |
|  |       | 50  | 50 | 19.19 | 19.15 | 19.16 | 20.50 |
|  |       | 100 | 0  | 19.21 | 19.16 | 19.14 | 20.50 |

| LTE FDD Band 7<br>(Receiver off+SAR sensor on Level D1&D2) |            |         |           | Conducted Power(dBm)    |            |              | Tune-up<br>Limit |
|------------------------------------------------------------|------------|---------|-----------|-------------------------|------------|--------------|------------------|
| Bandwidth                                                  | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              |                  |
|                                                            |            |         |           | 20775/2502.5            | 21100/2535 | 21425/2567.5 |                  |
| 5MHz                                                       | QPSK       | 1       | 0         | 20.50                   | 20.67      | 20.63        | 21.50            |
|                                                            |            | 1       | 13        | 20.52                   | 20.51      | 20.63        | 21.50            |
|                                                            |            | 1       | 24        | 20.68                   | 20.75      | 20.82        | 21.50            |
|                                                            |            | 12      | 0         | 20.35                   | 20.51      | 20.69        | 21.50            |
|                                                            |            | 12      | 6         | 20.32                   | 20.55      | 20.44        | 21.50            |
|                                                            |            | 12      | 13        | 20.32                   | 20.58      | 20.56        | 21.50            |
|                                                            |            | 25      | 0         | 20.37                   | 20.53      | 20.71        | 21.50            |
|                                                            | 16QAM      | 1       | 0         | 20.81                   | 20.70      | 20.79        | 21.50            |
|                                                            |            | 1       | 13        | 20.66                   | 20.65      | 20.51        | 21.50            |
|                                                            |            | 1       | 24        | 20.71                   | 20.93      | 20.93        | 21.50            |
|                                                            |            | 12      | 0         | 20.28                   | 20.41      | 20.63        | 21.50            |
|                                                            |            | 12      | 6         | 20.26                   | 20.45      | 20.50        | 21.50            |
|                                                            |            | 12      | 13        | 20.46                   | 20.64      | 20.53        | 21.50            |
|                                                            |            | 25      | 0         | 20.44                   | 20.55      | 20.54        | 21.50            |
|                                                            | 64QAM      | 1       | 0         | 20.61                   | 20.65      | 20.73        | 21.50            |
|                                                            |            | 1       | 13        | 20.67                   | 20.61      | 20.66        | 21.50            |
|                                                            |            | 1       | 24        | 20.53                   | 20.60      | 20.59        | 21.50            |
|                                                            |            | 12      | 0         | 20.23                   | 20.32      | 20.45        | 21.00            |
|                                                            |            | 12      | 6         | 20.20                   | 20.32      | 20.41        | 21.00            |
|                                                            |            | 12      | 13        | 20.21                   | 20.41      | 20.34        | 21.00            |
|                                                            |            | 25      | 0         | 20.28                   | 20.39      | 20.36        | 21.00            |
| Bandwidth                                                  | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up<br>Limit |
|                                                            |            |         |           | 20800/2505              | 21100/2535 | 21400/2565   |                  |
| 10MHz                                                      | QPSK       | 1       | 0         | 20.51                   | 20.66      | 20.65        | 21.50            |
|                                                            |            | 1       | 25        | 20.53                   | 20.55      | 20.65        | 21.50            |
|                                                            |            | 1       | 49        | 20.69                   | 20.77      | 20.84        | 21.50            |
|                                                            |            | 25      | 0         | 20.36                   | 20.55      | 20.71        | 21.50            |
|                                                            |            | 25      | 13        | 20.34                   | 20.58      | 20.47        | 21.50            |



|           |            | 25      | 25        | 20.32                   | 20.58      | 20.60        | 21.50         |
|-----------|------------|---------|-----------|-------------------------|------------|--------------|---------------|
|           |            | 50      | 0         | 20.37                   | 20.54      | 20.72        | 21.50         |
|           | 16QAM      | 1       | 0         | 20.80                   | 20.68      | 20.79        | 21.50         |
|           |            | 1       | 25        | 20.68                   | 20.68      | 20.49        | 21.50         |
|           |            | 1       | 49        | 20.72                   | 20.91      | 20.95        | 21.50         |
|           |            | 25      | 0         | 20.26                   | 20.45      | 20.64        | 21.50         |
|           |            | 25      | 13        | 20.25                   | 20.44      | 20.51        | 21.50         |
|           |            | 25      | 25        | 20.48                   | 20.68      | 20.52        | 21.50         |
|           |            | 50      | 0         | 20.43                   | 20.57      | 20.54        | 21.50         |
|           |            | 1       | 0         | 20.61                   | 20.64      | 20.74        | 21.50         |
|           | 64QAM      | 1       | 25        | 20.69                   | 20.63      | 20.66        | 21.50         |
|           |            | 1       | 49        | 20.53                   | 20.57      | 20.60        | 21.50         |
|           |            | 25      | 0         | 20.25                   | 20.36      | 20.44        | 21.00         |
|           |            | 25      | 13        | 20.18                   | 20.33      | 20.40        | 21.00         |
|           |            | 25      | 25        | 20.22                   | 20.42      | 20.37        | 21.00         |
|           |            | 50      | 0         | 20.30                   | 20.42      | 20.37        | 21.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 20825/2507.5            | 21100/2535 | 21375/2562.5 |               |
| 15MHz     | QPSK       | 1       | 0         | 20.51                   | 20.64      | 20.64        | 21.50         |
|           |            | 1       | 38        | 20.53                   | 20.55      | 20.64        | 21.50         |
|           |            | 1       | 74        | 20.67                   | 20.74      | 20.81        | 21.50         |
|           |            | 36      | 0         | 20.36                   | 20.52      | 20.70        | 21.50         |
|           |            | 36      | 18        | 20.32                   | 20.55      | 20.44        | 21.50         |
|           |            | 36      | 39        | 20.31                   | 20.59      | 20.57        | 21.50         |
|           |            | 75      | 0         | 20.40                   | 20.51      | 20.70        | 21.50         |
|           | 16QAM      | 1       | 0         | 20.78                   | 20.71      | 20.79        | 21.50         |
|           |            | 1       | 38        | 20.67                   | 20.66      | 20.52        | 21.50         |
|           |            | 1       | 74        | 20.71                   | 20.91      | 20.93        | 21.50         |
|           |            | 36      | 0         | 20.28                   | 20.44      | 20.64        | 21.50         |
|           |            | 36      | 18        | 20.25                   | 20.44      | 20.49        | 21.50         |
|           |            | 36      | 39        | 20.47                   | 20.65      | 20.54        | 21.50         |
|           |            | 75      | 0         | 20.44                   | 20.55      | 20.54        | 21.50         |
|           | 64QAM      | 1       | 0         | 20.58                   | 20.66      | 20.73        | 21.50         |
|           |            | 1       | 38        | 20.68                   | 20.62      | 20.67        | 21.50         |
|           |            | 1       | 74        | 20.53                   | 20.58      | 20.59        | 21.50         |
|           |            | 36      | 0         | 20.23                   | 20.35      | 20.46        | 21.00         |
|           |            | 36      | 18        | 20.19                   | 20.31      | 20.40        | 21.00         |
|           |            | 36      | 39        | 20.22                   | 20.42      | 20.35        | 21.00         |
|           |            | 75      | 0         | 20.28                   | 20.39      | 20.36        | 21.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 20850/2510              | 21100/2535 | 21350/2560   |               |
| 20MHz     | QPSK       | 1       | 0         | 20.48                   | 20.60      | 20.61        | 21.50         |
|           |            | 1       | 50        | 20.52                   | 20.51      | 20.62        | 21.50         |

|  |       |     |    |       |       |       |       |
|--|-------|-----|----|-------|-------|-------|-------|
|  |       | 1   | 99 | 20.65 | 20.73 | 20.78 | 21.50 |
|  |       | 50  | 0  | 20.33 | 20.47 | 20.66 | 21.50 |
|  |       | 50  | 25 | 20.30 | 20.51 | 20.41 | 21.50 |
|  |       | 50  | 50 | 20.28 | 20.54 | 20.53 | 21.50 |
|  |       | 100 | 0  | 20.37 | 20.46 | 20.66 | 21.50 |
|  | 16QAM | 1   | 0  | 20.76 | 20.67 | 20.74 | 21.50 |
|  |       | 1   | 50 | 20.63 | 20.64 | 20.48 | 21.50 |
|  |       | 1   | 99 | 20.69 | 20.88 | 20.91 | 21.50 |
|  |       | 50  | 0  | 20.25 | 20.40 | 20.61 | 21.50 |
|  |       | 50  | 25 | 20.22 | 20.42 | 20.46 | 21.50 |
|  |       | 50  | 50 | 20.44 | 20.60 | 20.50 | 21.50 |
|  |       | 100 | 0  | 20.42 | 20.51 | 20.51 | 21.50 |
|  | 64QAM | 1   | 0  | 20.56 | 20.62 | 20.68 | 21.50 |
|  |       | 1   | 50 | 20.64 | 20.60 | 20.63 | 21.50 |
|  |       | 1   | 99 | 20.51 | 20.55 | 20.57 | 21.50 |
|  |       | 50  | 0  | 20.20 | 20.31 | 20.43 | 21.00 |
|  |       | 50  | 25 | 20.16 | 20.29 | 20.37 | 21.00 |
|  |       | 50  | 50 | 20.19 | 20.37 | 20.31 | 21.00 |
|  |       | 100 | 0  | 20.26 | 20.35 | 20.33 | 21.00 |

| LTE FDD Band 7<br>(Hotspot on+Receiver off+SAR sensor on Level D3) |            |         |           | Conducted Power(dBm)    |            |              | Tune-up<br>Limit |
|--------------------------------------------------------------------|------------|---------|-----------|-------------------------|------------|--------------|------------------|
| Bandwidth                                                          | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              |                  |
|                                                                    |            |         |           | 20775/2502.5            | 21100/2535 | 21425/2567.5 |                  |
| 5MHz                                                               | QPSK       | 1       | 0         | 17.43                   | 17.62      | 17.53        | 19.00            |
|                                                                    |            | 1       | 13        | 17.47                   | 17.46      | 17.50        | 19.00            |
|                                                                    |            | 1       | 24        | 17.52                   | 17.54      | 17.58        | 19.00            |
|                                                                    |            | 12      | 0         | 17.33                   | 17.23      | 17.45        | 19.00            |
|                                                                    |            | 12      | 6         | 17.32                   | 17.41      | 17.51        | 19.00            |
|                                                                    |            | 12      | 13        | 17.39                   | 17.60      | 17.39        | 19.00            |
|                                                                    |            | 25      | 0         | 17.46                   | 17.45      | 17.40        | 19.00            |
|                                                                    | 16QAM      | 1       | 0         | 17.68                   | 17.77      | 17.93        | 19.00            |
|                                                                    |            | 1       | 13        | 17.63                   | 17.78      | 17.86        | 19.00            |
|                                                                    |            | 1       | 24        | 17.77                   | 17.73      | 17.84        | 19.00            |
|                                                                    |            | 12      | 0         | 17.20                   | 17.17      | 17.31        | 19.00            |
|                                                                    |            | 12      | 6         | 17.20                   | 17.38      | 17.29        | 19.00            |
|                                                                    |            | 12      | 13        | 17.42                   | 17.49      | 17.34        | 19.00            |
|                                                                    |            | 25      | 0         | 17.21                   | 17.37      | 17.28        | 19.00            |
|                                                                    | 64QAM      | 1       | 0         | 17.44                   | 17.48      | 17.65        | 19.00            |
|                                                                    |            | 1       | 13        | 17.23                   | 17.30      | 17.58        | 19.00            |
|                                                                    |            | 1       | 24        | 17.27                   | 17.46      | 17.14        | 19.00            |
|                                                                    |            | 12      | 0         | 17.17                   | 17.42      | 17.46        | 19.00            |
|                                                                    |            | 12      | 6         | 17.20                   | 17.33      | 17.40        | 19.00            |

|           |            | 12      | 13        | 17.29                   | 17.44      | 17.43        | 19.00         |
|-----------|------------|---------|-----------|-------------------------|------------|--------------|---------------|
|           |            | 25      | 0         | 17.33                   | 17.47      | 17.56        | 19.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 20800/2505              | 21100/2535 | 21400/2565   |               |
| 10MHz     | QPSK       | 1       | 0         | 17.44                   | 17.61      | 17.55        | 19.00         |
|           |            | 1       | 25        | 17.48                   | 17.50      | 17.52        | 19.00         |
|           |            | 1       | 49        | 17.53                   | 17.56      | 17.60        | 19.00         |
|           |            | 25      | 0         | 17.34                   | 17.27      | 17.47        | 19.00         |
|           |            | 25      | 13        | 17.34                   | 17.44      | 17.54        | 19.00         |
|           |            | 25      | 25        | 17.39                   | 17.60      | 17.43        | 19.00         |
|           |            | 50      | 0         | 17.46                   | 17.46      | 17.41        | 19.00         |
|           | 16QAM      | 1       | 0         | 17.67                   | 17.75      | 17.93        | 19.00         |
|           |            | 1       | 25        | 17.65                   | 17.81      | 17.84        | 19.00         |
|           |            | 1       | 49        | 17.78                   | 17.71      | 17.86        | 19.00         |
|           |            | 25      | 0         | 17.18                   | 17.21      | 17.32        | 19.00         |
|           |            | 25      | 13        | 17.19                   | 17.37      | 17.30        | 19.00         |
|           |            | 25      | 25        | 17.44                   | 17.53      | 17.33        | 19.00         |
|           |            | 50      | 0         | 17.20                   | 17.39      | 17.28        | 19.00         |
|           | 64QAM      | 1       | 0         | 17.44                   | 17.47      | 17.66        | 19.00         |
|           |            | 1       | 25        | 17.25                   | 17.32      | 17.58        | 19.00         |
|           |            | 1       | 49        | 17.27                   | 17.43      | 17.15        | 19.00         |
|           |            | 25      | 0         | 17.19                   | 17.46      | 17.45        | 19.00         |
|           |            | 25      | 13        | 17.18                   | 17.34      | 17.39        | 19.00         |
|           |            | 25      | 25        | 17.30                   | 17.45      | 17.46        | 19.00         |
|           |            | 50      | 0         | 17.35                   | 17.50      | 17.57        | 19.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 20825/2507.5            | 21100/2535 | 21375/2562.5 |               |
| 15MHz     | QPSK       | 1       | 0         | 17.44                   | 17.59      | 17.54        | 19.00         |
|           |            | 1       | 38        | 17.48                   | 17.50      | 17.51        | 19.00         |
|           |            | 1       | 74        | 17.51                   | 17.53      | 17.57        | 19.00         |
|           |            | 36      | 0         | 17.34                   | 17.24      | 17.46        | 19.00         |
|           |            | 36      | 18        | 17.32                   | 17.41      | 17.51        | 19.00         |
|           |            | 36      | 39        | 17.38                   | 17.61      | 17.40        | 19.00         |
|           |            | 75      | 0         | 17.49                   | 17.43      | 17.39        | 19.00         |
|           | 16QAM      | 1       | 0         | 17.65                   | 17.78      | 17.93        | 19.00         |
|           |            | 1       | 38        | 17.64                   | 17.79      | 17.87        | 19.00         |
|           |            | 1       | 74        | 17.77                   | 17.71      | 17.84        | 19.00         |
|           |            | 36      | 0         | 17.20                   | 17.20      | 17.32        | 19.00         |
|           |            | 36      | 18        | 17.19                   | 17.37      | 17.28        | 19.00         |
|           |            | 36      | 39        | 17.43                   | 17.50      | 17.35        | 19.00         |
|           |            | 75      | 0         | 17.21                   | 17.37      | 17.28        | 19.00         |
|           | 64QAM      | 1       | 0         | 17.41                   | 17.49      | 17.65        | 19.00         |
|           |            | 1       | 38        | 17.24                   | 17.31      | 17.59        | 19.00         |

|           |            | 1       | 74        | 17.27                   | 17.44      | 17.14      | 19.00         |
|-----------|------------|---------|-----------|-------------------------|------------|------------|---------------|
|           |            | 36      | 0         | 17.17                   | 17.45      | 17.47      | 19.00         |
|           |            | 36      | 18        | 17.19                   | 17.32      | 17.39      | 19.00         |
|           |            | 36      | 39        | 17.30                   | 17.45      | 17.44      | 19.00         |
|           |            | 75      | 0         | 17.33                   | 17.47      | 17.56      | 19.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |            | Tune-up Limit |
|           |            |         |           | 20850/2510              | 21100/2535 | 21350/2560 |               |
| 20MHz     | QPSK       | 1       | 0         | 17.41                   | 17.55      | 17.51      | 19.00         |
|           |            | 1       | 50        | 17.47                   | 17.46      | 17.49      | 19.00         |
|           |            | 1       | 99        | 17.49                   | 17.52      | 17.54      | 19.00         |
|           |            | 50      | 0         | 17.31                   | 17.19      | 17.42      | 19.00         |
|           |            | 50      | 25        | 17.30                   | 17.37      | 17.48      | 19.00         |
|           |            | 50      | 50        | 17.35                   | 17.56      | 17.36      | 19.00         |
|           |            | 100     | 0         | 17.46                   | 17.38      | 17.35      | 19.00         |
|           | 16QAM      | 1       | 0         | 17.63                   | 17.74      | 17.88      | 19.00         |
|           |            | 1       | 50        | 17.60                   | 17.77      | 17.83      | 19.00         |
|           |            | 1       | 99        | 17.75                   | 17.68      | 17.82      | 19.00         |
|           |            | 50      | 0         | 17.17                   | 17.16      | 17.29      | 19.00         |
|           |            | 50      | 25        | 17.16                   | 17.35      | 17.25      | 19.00         |
|           |            | 50      | 50        | 17.40                   | 17.45      | 17.31      | 19.00         |
|           |            | 100     | 0         | 17.19                   | 17.33      | 17.25      | 19.00         |
|           | 64QAM      | 1       | 0         | 17.39                   | 17.45      | 17.60      | 19.00         |
|           |            | 1       | 50        | 17.20                   | 17.29      | 17.55      | 19.00         |
|           |            | 1       | 99        | 17.25                   | 17.41      | 17.12      | 19.00         |
|           |            | 50      | 0         | 17.14                   | 17.41      | 17.44      | 19.00         |
|           |            | 50      | 25        | 17.16                   | 17.30      | 17.36      | 19.00         |
|           |            | 50      | 50        | 17.27                   | 17.40      | 17.40      | 19.00         |
|           |            | 100     | 0         | 17.31                   | 17.43      | 17.53      | 19.00         |

| LTE FDD Band 7<br>(Hotspot on+Receiver off+SAR sensor on Level D1&D2) |            |         |           | Conducted Power(dBm)    |            |              | Tune-up<br>Limit |
|-----------------------------------------------------------------------|------------|---------|-----------|-------------------------|------------|--------------|------------------|
| Bandwidth                                                             | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              |                  |
|                                                                       |            |         |           | 20775/2502.5            | 21100/2535 | 21425/2567.5 |                  |
| 5MHz                                                                  | QPSK       | 1       | 0         | 16.90                   | 17.24      | 17.22        | 18.00            |
|                                                                       |            | 1       | 13        | 17.05                   | 17.13      | 16.91        | 18.00            |
|                                                                       |            | 1       | 24        | 17.06                   | 17.18      | 17.24        | 18.00            |
|                                                                       |            | 12      | 0         | 16.83                   | 16.95      | 17.11        | 18.00            |
|                                                                       |            | 12      | 6         | 16.79                   | 17.06      | 16.99        | 18.00            |
|                                                                       |            | 12      | 13        | 16.93                   | 17.10      | 17.08        | 18.00            |
|                                                                       |            | 25      | 0         | 16.86                   | 17.04      | 17.09        | 18.00            |
|                                                                       | 16QAM      | 1       | 0         | 17.12                   | 17.23      | 17.44        | 18.00            |
|                                                                       |            | 1       | 13        | 17.15                   | 17.24      | 17.14        | 18.00            |
|                                                                       |            | 1       | 24        | 17.33                   | 17.45      | 17.25        | 18.00            |

|           |            | 12      | 0         | 16.78                   | 17.02      | 17.04        | 18.00         |
|-----------|------------|---------|-----------|-------------------------|------------|--------------|---------------|
|           |            | 12      | 6         | 16.75                   | 17.05      | 16.99        | 18.00         |
|           |            | 12      | 13        | 16.91                   | 17.21      | 17.18        | 18.00         |
|           |            | 25      | 0         | 16.97                   | 16.95      | 17.01        | 18.00         |
|           | 64QAM      | 1       | 0         | 16.94                   | 16.96      | 17.15        | 18.00         |
|           |            | 1       | 13        | 16.73                   | 16.80      | 17.09        | 18.00         |
|           |            | 1       | 24        | 16.76                   | 16.98      | 16.63        | 18.00         |
|           |            | 12      | 0         | 16.70                   | 16.92      | 16.96        | 18.00         |
|           |            | 12      | 6         | 16.72                   | 16.85      | 16.92        | 18.00         |
|           |            | 12      | 13        | 16.80                   | 16.95      | 16.96        | 18.00         |
|           |            | 25      | 0         | 16.83                   | 16.99      | 17.06        | 18.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 20800/2505              | 21100/2535 | 21400/2565   |               |
| 10MHz     | QPSK       | 1       | 0         | 16.91                   | 17.23      | 17.24        | 18.00         |
|           |            | 1       | 25        | 17.06                   | 17.17      | 16.93        | 18.00         |
|           |            | 1       | 49        | 17.07                   | 17.20      | 17.26        | 18.00         |
|           |            | 25      | 0         | 16.84                   | 16.99      | 17.13        | 18.00         |
|           |            | 25      | 13        | 16.81                   | 17.09      | 17.02        | 18.00         |
|           |            | 25      | 25        | 16.93                   | 17.10      | 17.12        | 18.00         |
|           |            | 50      | 0         | 16.86                   | 17.05      | 17.10        | 18.00         |
|           | 16QAM      | 1       | 0         | 17.11                   | 17.21      | 17.44        | 18.00         |
|           |            | 1       | 25        | 17.17                   | 17.27      | 17.12        | 18.00         |
|           |            | 1       | 49        | 17.34                   | 17.43      | 17.27        | 18.00         |
|           |            | 25      | 0         | 16.76                   | 17.06      | 17.05        | 18.00         |
|           |            | 25      | 13        | 16.74                   | 17.04      | 17.00        | 18.00         |
|           |            | 25      | 25        | 16.93                   | 17.25      | 17.17        | 18.00         |
|           |            | 50      | 0         | 16.96                   | 16.97      | 17.01        | 18.00         |
|           | 64QAM      | 1       | 0         | 16.94                   | 16.95      | 17.16        | 18.00         |
|           |            | 1       | 25        | 16.75                   | 16.82      | 17.09        | 18.00         |
|           |            | 1       | 49        | 16.76                   | 16.95      | 16.64        | 18.00         |
|           |            | 25      | 0         | 16.72                   | 16.96      | 16.95        | 18.00         |
|           |            | 25      | 13        | 16.70                   | 16.86      | 16.91        | 18.00         |
|           |            | 25      | 25        | 16.81                   | 16.96      | 16.99        | 18.00         |
|           |            | 50      | 0         | 16.85                   | 17.02      | 17.07        | 18.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 20825/2507.5            | 21100/2535 | 21375/2562.5 |               |
| 15MHz     | QPSK       | 1       | 0         | 16.91                   | 17.21      | 17.23        | 18.00         |
|           |            | 1       | 38        | 17.06                   | 17.17      | 16.92        | 18.00         |
|           |            | 1       | 74        | 17.05                   | 17.17      | 17.23        | 18.00         |
|           |            | 36      | 0         | 16.84                   | 16.96      | 17.12        | 18.00         |
|           |            | 36      | 18        | 16.79                   | 17.06      | 16.99        | 18.00         |
|           |            | 36      | 39        | 16.92                   | 17.11      | 17.09        | 18.00         |
|           |            | 75      | 0         | 16.89                   | 17.02      | 17.08        | 18.00         |

|           | 16QAM      | 1       | 0         | 17.09                   | 17.24      | 17.44      | 18.00         |
|-----------|------------|---------|-----------|-------------------------|------------|------------|---------------|
|           |            | 1       | 38        | 17.16                   | 17.25      | 17.15      | 18.00         |
|           |            | 1       | 74        | 17.33                   | 17.43      | 17.25      | 18.00         |
|           |            | 36      | 0         | 16.78                   | 17.05      | 17.05      | 18.00         |
|           |            | 36      | 18        | 16.74                   | 17.04      | 16.98      | 18.00         |
|           |            | 36      | 39        | 16.92                   | 17.22      | 17.19      | 18.00         |
|           |            | 75      | 0         | 16.97                   | 16.95      | 17.01      | 18.00         |
|           | 64QAM      | 1       | 0         | 16.91                   | 16.97      | 17.15      | 18.00         |
|           |            | 1       | 38        | 16.74                   | 16.81      | 17.10      | 18.00         |
|           |            | 1       | 74        | 16.76                   | 16.96      | 16.63      | 18.00         |
|           |            | 36      | 0         | 16.70                   | 16.95      | 16.97      | 18.00         |
|           |            | 36      | 18        | 16.71                   | 16.84      | 16.91      | 18.00         |
|           |            | 36      | 39        | 16.81                   | 16.96      | 16.97      | 18.00         |
|           |            | 75      | 0         | 16.83                   | 16.99      | 17.06      | 18.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |            | Tune-up Limit |
|           |            |         |           | 20850/2510              | 21100/2535 | 21350/2560 |               |
| 20MHz     | QPSK       | 1       | 0         | 16.88                   | 17.17      | 17.20      | 18.00         |
|           |            | 1       | 50        | 17.05                   | 17.13      | 16.90      | 18.00         |
|           |            | 1       | 99        | 17.03                   | 17.16      | 17.20      | 18.00         |
|           |            | 50      | 0         | 16.81                   | 16.91      | 17.08      | 18.00         |
|           |            | 50      | 25        | 16.77                   | 17.02      | 16.96      | 18.00         |
|           |            | 50      | 50        | 16.89                   | 17.06      | 17.05      | 18.00         |
|           |            | 100     | 0         | 16.86                   | 16.97      | 17.04      | 18.00         |
|           | 16QAM      | 1       | 0         | 17.07                   | 17.20      | 17.39      | 18.00         |
|           |            | 1       | 50        | 17.12                   | 17.23      | 17.11      | 18.00         |
|           |            | 1       | 99        | 17.31                   | 17.40      | 17.23      | 18.00         |
|           |            | 50      | 0         | 16.75                   | 17.01      | 17.02      | 18.00         |
|           |            | 50      | 25        | 16.71                   | 17.02      | 16.95      | 18.00         |
|           |            | 50      | 50        | 16.89                   | 17.17      | 17.15      | 18.00         |
|           |            | 100     | 0         | 16.95                   | 16.91      | 16.98      | 18.00         |
|           | 64QAM      | 1       | 0         | 16.89                   | 16.93      | 17.10      | 18.00         |
|           |            | 1       | 50        | 16.70                   | 16.79      | 17.06      | 18.00         |
|           |            | 1       | 99        | 16.74                   | 16.93      | 16.61      | 18.00         |
|           |            | 50      | 0         | 16.67                   | 16.91      | 16.94      | 18.00         |
|           |            | 50      | 25        | 16.68                   | 16.82      | 16.88      | 18.00         |
|           |            | 50      | 50        | 16.78                   | 16.91      | 16.93      | 18.00         |
|           |            | 100     | 0         | 16.81                   | 16.95      | 17.03      | 18.00         |

| LTE FDD Band 12<br>(Receiver on)<br>Receiver off+SAR sensor on Level D1&D2<br>(Receiver off+SAR sensor on Level D3)<br>(Receiver off+SAR sensor on Level D7)<br>(Sensor off+Hotspot off) |            |         |           | Conducted Power(dBm)    |             |             | Tune-up<br>Limit |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------|-----------|-------------------------|-------------|-------------|------------------|
| Bandwidth                                                                                                                                                                                | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             |                  |
|                                                                                                                                                                                          |            |         |           | 23017/699.7             | 23095/707.5 | 23173/715.3 |                  |
| 1.4MHz                                                                                                                                                                                   | QPSK       | 1       | 0         | 24.06                   | 23.88       | 23.72       | 25.00            |
|                                                                                                                                                                                          |            | 1       | 2         | 23.91                   | 24.01       | 23.95       | 25.00            |
|                                                                                                                                                                                          |            | 1       | 5         | 23.81                   | 24.06       | 23.74       | 25.00            |
|                                                                                                                                                                                          |            | 3       | 0         | 22.90                   | 22.76       | 22.75       | 24.00            |
|                                                                                                                                                                                          |            | 3       | 2         | 22.82                   | 22.95       | 22.87       | 24.00            |
|                                                                                                                                                                                          |            | 3       | 3         | 22.99                   | 23.03       | 23.04       | 24.00            |
|                                                                                                                                                                                          |            | 6       | 0         | 22.96                   | 23.01       | 22.90       | 24.00            |
|                                                                                                                                                                                          | 16QAM      | 1       | 0         | 23.20                   | 23.25       | 23.15       | 24.00            |
|                                                                                                                                                                                          |            | 1       | 2         | 22.99                   | 23.22       | 23.19       | 24.00            |
|                                                                                                                                                                                          |            | 1       | 5         | 23.22                   | 23.15       | 23.08       | 24.00            |
|                                                                                                                                                                                          |            | 3       | 0         | 21.87                   | 21.66       | 21.88       | 23.00            |
|                                                                                                                                                                                          |            | 3       | 2         | 21.77                   | 21.96       | 21.96       | 23.00            |
|                                                                                                                                                                                          |            | 3       | 3         | 21.99                   | 21.84       | 21.97       | 23.00            |
|                                                                                                                                                                                          |            | 6       | 0         | 21.74                   | 21.92       | 21.87       | 23.00            |
|                                                                                                                                                                                          | 64QAM      | 1       | 0         | 21.60                   | 21.63       | 21.71       | 23.00            |
|                                                                                                                                                                                          |            | 1       | 2         | 21.66                   | 21.66       | 21.79       | 23.00            |
|                                                                                                                                                                                          |            | 1       | 5         | 21.64                   | 21.62       | 21.68       | 23.00            |
|                                                                                                                                                                                          |            | 3       | 0         | 20.59                   | 20.67       | 20.70       | 22.00            |
|                                                                                                                                                                                          |            | 3       | 2         | 20.63                   | 20.61       | 20.65       | 22.00            |
|                                                                                                                                                                                          |            | 3       | 3         | 20.71                   | 20.75       | 20.73       | 22.00            |
|                                                                                                                                                                                          |            | 6       | 0         | 20.66                   | 20.67       | 20.62       | 22.00            |
| Bandwidth                                                                                                                                                                                | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up<br>Limit |
|                                                                                                                                                                                          |            |         |           | 23025/700.5             | 23095/707.5 | 23165/714.5 |                  |
| 3MHz                                                                                                                                                                                     | QPSK       | 1       | 0         | 24.08                   | 23.92       | 23.75       | 25.00            |
|                                                                                                                                                                                          |            | 1       | 7         | 23.91                   | 24.03       | 23.99       | 25.00            |
|                                                                                                                                                                                          |            | 1       | 14        | 23.84                   | 24.11       | 23.78       | 25.00            |
|                                                                                                                                                                                          |            | 8       | 0         | 22.94                   | 22.83       | 22.82       | 24.00            |
|                                                                                                                                                                                          |            | 8       | 4         | 22.85                   | 23.03       | 22.93       | 24.00            |
|                                                                                                                                                                                          |            | 8       | 7         | 23.03                   | 23.08       | 23.08       | 24.00            |
|                                                                                                                                                                                          |            | 15      | 0         | 22.98                   | 23.05       | 22.93       | 24.00            |
|                                                                                                                                                                                          | 16QAM      | 1       | 0         | 23.23                   | 23.27       | 23.18       | 24.00            |
|                                                                                                                                                                                          |            | 1       | 7         | 23.02                   | 23.24       | 23.23       | 24.00            |
|                                                                                                                                                                                          |            | 1       | 14        | 23.24                   | 23.19       | 23.11       | 24.00            |
|                                                                                                                                                                                          |            | 8       | 0         | 21.92                   | 21.70       | 21.91       | 23.00            |
|                                                                                                                                                                                          |            | 8       | 4         | 21.82                   | 22.03       | 22.02       | 23.00            |

|           |            | 8       | 7         | 22.03                   | 21.90       | 22.04       | 23.00         |
|-----------|------------|---------|-----------|-------------------------|-------------|-------------|---------------|
|           |            | 15      | 0         | 21.77                   | 21.96       | 21.90       | 23.00         |
|           | 64QAM      | 1       | 0         | 21.63                   | 21.65       | 21.74       | 23.00         |
|           |            | 1       | 7         | 21.69                   | 21.68       | 21.83       | 23.00         |
|           |            | 1       | 14        | 21.66                   | 21.66       | 21.71       | 23.00         |
|           |            | 8       | 0         | 20.64                   | 20.71       | 20.73       | 22.00         |
|           |            | 8       | 4         | 20.68                   | 20.68       | 20.71       | 22.00         |
|           |            | 8       | 7         | 20.75                   | 20.81       | 20.80       | 22.00         |
|           |            | 15      | 0         | 20.68                   | 20.73       | 20.67       | 22.00         |
|           |            |         |           |                         |             |             |               |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up Limit |
|           |            |         |           | 23035/701.5             | 23095/707.5 | 23155/713.5 |               |
| 5MHz      | QPSK       | 1       | 0         | 24.05                   | 23.90       | 23.71       | 25.00         |
|           |            | 1       | 13        | 23.89                   | 23.99       | 23.96       | 25.00         |
|           |            | 1       | 24        | 23.81                   | 24.06       | 23.74       | 25.00         |
|           |            | 12      | 0         | 22.91                   | 22.78       | 22.78       | 24.00         |
|           |            | 12      | 6         | 22.83                   | 22.99       | 22.88       | 24.00         |
|           |            | 12      | 13        | 23.01                   | 23.06       | 23.04       | 24.00         |
|           |            | 25      | 0         | 22.96                   | 23.04       | 22.91       | 24.00         |
|           | 16QAM      | 1       | 0         | 23.20                   | 23.23       | 23.15       | 24.00         |
|           |            | 1       | 13        | 22.99                   | 23.22       | 23.20       | 24.00         |
|           |            | 1       | 24        | 23.21                   | 23.17       | 23.07       | 24.00         |
|           |            | 12      | 0         | 21.90                   | 21.66       | 21.88       | 23.00         |
|           |            | 12      | 6         | 21.79                   | 21.98       | 21.98       | 23.00         |
|           |            | 12      | 13        | 22.00                   | 21.85       | 22.00       | 23.00         |
|           |            | 25      | 0         | 21.75                   | 21.92       | 21.85       | 23.00         |
|           | 64QAM      | 1       | 0         | 21.60                   | 21.61       | 21.71       | 23.00         |
|           |            | 1       | 13        | 21.66                   | 21.66       | 21.80       | 23.00         |
|           |            | 1       | 24        | 21.63                   | 21.64       | 21.67       | 23.00         |
|           |            | 12      | 0         | 20.62                   | 20.67       | 20.70       | 22.00         |
|           |            | 12      | 6         | 20.65                   | 20.63       | 20.67       | 22.00         |
|           |            | 12      | 13        | 20.72                   | 20.76       | 20.76       | 22.00         |
|           |            | 25      | 0         | 20.66                   | 20.69       | 20.62       | 22.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up Limit |
|           |            |         |           | 23060/704               | 23095/707.5 | 23130/711   |               |
| 10MHz     | QPSK       | 1       | 0         | 24.03                   | 23.83       | 23.69       | 25.00         |
|           |            | 1       | 25        | 23.89                   | 23.99       | 23.95       | 25.00         |
|           |            | 1       | 49        | 23.78                   | 24.04       | 23.70       | 25.00         |
|           |            | 25      | 0         | 22.89                   | 22.74       | 22.75       | 24.00         |
|           |            | 25      | 13        | 22.81                   | 22.95       | 22.85       | 24.00         |
|           |            | 25      | 25        | 22.97                   | 23.02       | 23.01       | 24.00         |
|           |            | 50      | 0         | 22.96                   | 22.97       | 22.86       | 24.00         |
|           | 16QAM      | 1       | 0         | 23.15                   | 23.20       | 23.10       | 24.00         |
|           |            | 1       | 25        | 22.96                   | 23.21       | 23.17       | 24.00         |



|  |       |    |    |       |       |       |       |
|--|-------|----|----|-------|-------|-------|-------|
|  |       | 1  | 49 | 23.19 | 23.12 | 23.05 | 24.00 |
|  |       | 25 | 0  | 21.87 | 21.65 | 21.86 | 23.00 |
|  |       | 25 | 13 | 21.75 | 21.95 | 21.94 | 23.00 |
|  |       | 25 | 25 | 21.98 | 21.81 | 21.97 | 23.00 |
|  |       | 50 | 0  | 21.73 | 21.88 | 21.82 | 23.00 |
|  | 64QAM | 1  | 0  | 21.55 | 21.58 | 21.66 | 23.00 |
|  |       | 1  | 25 | 21.63 | 21.65 | 21.77 | 23.00 |
|  |       | 1  | 49 | 21.61 | 21.59 | 21.65 | 23.00 |
|  |       | 25 | 0  | 20.59 | 20.66 | 20.68 | 22.00 |
|  |       | 25 | 13 | 20.61 | 20.60 | 20.63 | 22.00 |
|  |       | 25 | 25 | 20.70 | 20.72 | 20.73 | 22.00 |
|  |       | 50 | 0  | 20.64 | 20.65 | 20.59 | 22.00 |

| LTE FDD Band 12<br>(Hotspot on+Receiver on)<br>(Hotspot on+Receiver off+SAR sensor on Level D1&D2)<br>(Hotspot on+Receiver off+SAR sensor on Level D3)<br>(Hotspot on+Receiver off+SAR sensor on Level D7)<br>(sensor off+hotspot on) |            |         |           | Conducted Power(dBm)    |             |             | Tune-up Limit |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------|-----------|-------------------------|-------------|-------------|---------------|
| Bandwidth                                                                                                                                                                                                                             | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             |               |
|                                                                                                                                                                                                                                       |            |         |           | 23017/699.7             | 23095/707.5 | 23173/715.3 |               |
| 1.4MHz                                                                                                                                                                                                                                | QPSK       | 1       | 0         | 23.25                   | 23.11       | 23.20       | 24.50         |
|                                                                                                                                                                                                                                       |            | 1       | 2         | 23.24                   | 23.39       | 23.21       | 24.50         |
|                                                                                                                                                                                                                                       |            | 1       | 5         | 23.40                   | 23.25       | 23.13       | 24.50         |
|                                                                                                                                                                                                                                       |            | 3       | 0         | 22.57                   | 22.66       | 22.48       | 24.50         |
|                                                                                                                                                                                                                                       |            | 3       | 2         | 22.72                   | 22.66       | 22.52       | 24.50         |
|                                                                                                                                                                                                                                       |            | 3       | 3         | 22.73                   | 22.62       | 22.57       | 24.50         |
|                                                                                                                                                                                                                                       |            | 6       | 0         | 22.67                   | 22.64       | 22.68       | 24.00         |
|                                                                                                                                                                                                                                       | 16QAM      | 1       | 0         | 22.84                   | 23.21       | 22.93       | 24.00         |
|                                                                                                                                                                                                                                       |            | 1       | 2         | 22.96                   | 22.96       | 22.92       | 24.00         |
|                                                                                                                                                                                                                                       |            | 1       | 5         | 23.12                   | 23.08       | 22.92       | 24.00         |
|                                                                                                                                                                                                                                       |            | 3       | 0         | 21.48                   | 21.50       | 21.51       | 24.00         |
|                                                                                                                                                                                                                                       |            | 3       | 2         | 21.48                   | 21.54       | 21.50       | 24.00         |
|                                                                                                                                                                                                                                       |            | 3       | 3         | 21.70                   | 21.61       | 21.54       | 24.00         |
|                                                                                                                                                                                                                                       |            | 6       | 0         | 21.69                   | 21.69       | 21.58       | 23.00         |
|                                                                                                                                                                                                                                       | 64QAM      | 1       | 0         | 22.68                   | 22.75       | 22.72       | 23.00         |
|                                                                                                                                                                                                                                       |            | 1       | 2         | 22.70                   | 22.62       | 22.74       | 23.00         |
|                                                                                                                                                                                                                                       |            | 1       | 5         | 22.52                   | 22.53       | 22.91       | 23.00         |
|                                                                                                                                                                                                                                       |            | 3       | 0         | 21.44                   | 21.65       | 21.47       | 23.00         |
|                                                                                                                                                                                                                                       |            | 3       | 2         | 21.44                   | 21.66       | 21.52       | 23.00         |
|                                                                                                                                                                                                                                       |            | 3       | 3         | 21.51                   | 21.64       | 21.56       | 23.00         |
|                                                                                                                                                                                                                                       |            | 6       | 0         | 21.54                   | 21.73       | 21.56       | 22.00         |

| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up Limit |
|-----------|------------|---------|-----------|-------------------------|-------------|-------------|---------------|
|           |            |         |           | 23025/700.5             | 23095/707.5 | 23165/714.5 |               |
| 3MHz      | QPSK       | 1       | 0         | 23.27                   | 23.15       | 23.23       | 24.50         |
|           |            | 1       | 7         | 23.27                   | 23.44       | 23.25       | 24.50         |
|           |            | 1       | 14        | 23.43                   | 23.30       | 23.17       | 24.50         |
|           |            | 8       | 0         | 22.65                   | 22.76       | 22.59       | 24.00         |
|           |            | 8       | 4         | 22.82                   | 22.74       | 22.62       | 24.00         |
|           |            | 8       | 7         | 22.81                   | 22.71       | 22.65       | 24.00         |
|           |            | 15      | 0         | 22.70                   | 22.68       | 22.71       | 24.00         |
|           | 16QAM      | 1       | 0         | 22.87                   | 23.23       | 22.96       | 24.00         |
|           |            | 1       | 7         | 22.99                   | 23.01       | 22.96       | 24.00         |
|           |            | 1       | 14        | 23.14                   | 23.12       | 22.95       | 24.00         |
|           |            | 8       | 0         | 21.57                   | 21.61       | 21.61       | 23.00         |
|           |            | 8       | 4         | 21.57                   | 21.65       | 21.60       | 23.00         |
|           |            | 8       | 7         | 21.78                   | 21.71       | 21.65       | 23.00         |
|           |            | 15      | 0         | 21.72                   | 21.73       | 21.61       | 23.00         |
|           | 64QAM      | 1       | 0         | 22.71                   | 22.77       | 22.75       | 23.00         |
|           |            | 1       | 7         | 22.73                   | 22.67       | 22.78       | 23.00         |
|           |            | 1       | 14        | 22.54                   | 22.57       | 22.94       | 23.00         |
|           |            | 8       | 0         | 21.53                   | 21.76       | 21.57       | 22.00         |
|           |            | 8       | 4         | 21.53                   | 21.77       | 21.62       | 22.00         |
|           |            | 8       | 7         | 21.59                   | 21.74       | 21.67       | 22.00         |
|           |            | 15      | 0         | 21.57                   | 21.77       | 21.59       | 22.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up Limit |
|           |            |         |           | 23035/701.5             | 23095/707.5 | 23155/713.5 |               |
| 5MHz      | QPSK       | 1       | 0         | 23.24                   | 23.13       | 23.19       | 24.50         |
|           |            | 1       | 13        | 23.25                   | 23.40       | 23.22       | 24.50         |
|           |            | 1       | 24        | 23.40                   | 23.25       | 23.13       | 24.50         |
|           |            | 12      | 0         | 22.62                   | 22.71       | 22.55       | 24.00         |
|           |            | 12      | 6         | 22.80                   | 22.70       | 22.57       | 24.00         |
|           |            | 12      | 13        | 22.79                   | 22.69       | 22.61       | 24.00         |
|           |            | 25      | 0         | 22.68                   | 22.67       | 22.69       | 24.00         |
|           | 16QAM      | 1       | 0         | 22.84                   | 23.19       | 22.93       | 24.00         |
|           |            | 1       | 13        | 22.96                   | 22.99       | 22.93       | 24.00         |
|           |            | 1       | 24        | 23.11                   | 23.10       | 22.91       | 24.00         |
|           |            | 12      | 0         | 21.55                   | 21.57       | 21.58       | 23.00         |
|           |            | 12      | 6         | 21.54                   | 21.60       | 21.56       | 23.00         |
|           |            | 12      | 13        | 21.75                   | 21.66       | 21.61       | 23.00         |
|           |            | 25      | 0         | 21.70                   | 21.69       | 21.56       | 23.00         |
|           | 64QAM      | 1       | 0         | 22.68                   | 22.73       | 22.72       | 23.00         |
|           |            | 1       | 13        | 22.70                   | 22.65       | 22.75       | 23.00         |
|           |            | 1       | 24        | 22.51                   | 22.55       | 22.90       | 23.00         |
|           |            | 12      | 0         | 21.51                   | 21.72       | 21.54       | 22.00         |

|           |            | 12      | 6         | 21.50                   | 21.72       | 21.58     | 22.00         |
|-----------|------------|---------|-----------|-------------------------|-------------|-----------|---------------|
|           |            | 12      | 13        | 21.56                   | 21.69       | 21.63     | 22.00         |
|           |            | 25      | 0         | 21.55                   | 21.73       | 21.54     | 22.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |           | Tune-up Limit |
|           |            |         |           | 23060/704               | 23095/707.5 | 23130/711 |               |
| 10MHz     | QPSK       | 1       | 0         | 23.22                   | 23.06       | 23.17     | 24.50         |
|           |            | 1       | 25        | 23.25                   | 23.40       | 23.21     | 24.50         |
|           |            | 1       | 49        | 23.37                   | 23.23       | 23.09     | 24.50         |
|           |            | 25      | 0         | 22.60                   | 22.67       | 22.52     | 24.00         |
|           |            | 25      | 13        | 22.78                   | 22.66       | 22.54     | 24.00         |
|           |            | 25      | 25        | 22.75                   | 22.65       | 22.58     | 24.00         |
|           |            | 50      | 0         | 22.71                   | 22.60       | 22.64     | 24.00         |
|           | 16QAM      | 1       | 0         | 22.79                   | 23.16       | 22.88     | 24.00         |
|           |            | 1       | 25        | 22.93                   | 22.98       | 22.90     | 24.00         |
|           |            | 1       | 49        | 23.09                   | 23.05       | 22.89     | 24.00         |
|           |            | 25      | 0         | 21.52                   | 21.56       | 21.56     | 23.00         |
|           |            | 25      | 13        | 21.50                   | 21.57       | 21.52     | 23.00         |
|           |            | 25      | 25        | 21.73                   | 21.62       | 21.58     | 23.00         |
|           |            | 50      | 0         | 21.68                   | 21.65       | 21.53     | 23.00         |
|           | 64QAM      | 1       | 0         | 22.63                   | 22.70       | 22.67     | 23.00         |
|           |            | 1       | 25        | 22.67                   | 22.64       | 22.72     | 23.00         |
|           |            | 1       | 49        | 22.49                   | 22.50       | 22.88     | 23.00         |
|           |            | 25      | 0         | 21.48                   | 21.71       | 21.52     | 22.00         |
|           |            | 25      | 13        | 21.46                   | 21.69       | 21.54     | 22.00         |
|           |            | 25      | 25        | 21.54                   | 21.65       | 21.60     | 22.00         |
|           |            | 50      | 0         | 21.53                   | 21.69       | 21.51     | 22.00         |

| LTE FDD Band 17<br>(Receiver on)<br>(Receiver off+SAR sensor on Level D1&D2)<br>(Receiver off+SAR sensor on Level D3)<br>(Receiver off+SAR sensor on Level D7)<br>(Sensor off+Hotspot off) |            |         |           | Conducted Power(dBm)    |           |             | Tune-up<br>Limit |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------|-----------|-------------------------|-----------|-------------|------------------|
| Bandwidth                                                                                                                                                                                  | Modulation | RB size | RB offset | Channel/Frequency (MHz) |           |             |                  |
|                                                                                                                                                                                            |            |         |           | 23755/706.5             | 23790/710 | 23825/713.5 |                  |
| 5MHz                                                                                                                                                                                       | QPSK       | 1       | 0         | 23.76                   | 23.85     | 23.89       | 25.00            |
|                                                                                                                                                                                            |            | 1       | 13        | 23.93                   | 24.03     | 23.82       | 25.00            |
|                                                                                                                                                                                            |            | 1       | 24        | 23.97                   | 23.92     | 23.90       | 25.00            |
|                                                                                                                                                                                            |            | 12      | 0         | 22.78                   | 22.83     | 22.76       | 24.00            |
|                                                                                                                                                                                            |            | 12      | 6         | 22.89                   | 22.94     | 22.82       | 24.00            |
|                                                                                                                                                                                            |            | 12      | 13        | 22.87                   | 22.92     | 22.90       | 24.00            |
|                                                                                                                                                                                            |            | 25      | 0         | 22.81                   | 22.89     | 22.85       | 24.00            |
|                                                                                                                                                                                            | 16QAM      | 1       | 0         | 23.10                   | 23.26     | 23.03       | 24.00            |

|           |            | 1       | 13        | 23.04                   | 23.15     | 23.06     | 24.00         |
|-----------|------------|---------|-----------|-------------------------|-----------|-----------|---------------|
|           |            | 1       | 24        | 23.09                   | 23.06     | 23.12     | 24.00         |
|           |            | 12      | 0         | 21.71                   | 21.73     | 21.88     | 23.00         |
|           |            | 12      | 6         | 21.76                   | 21.82     | 21.88     | 23.00         |
|           |            | 12      | 13        | 21.81                   | 21.98     | 21.80     | 23.00         |
|           |            | 25      | 0         | 21.87                   | 21.72     | 21.72     | 23.00         |
|           | 64QAM      | 1       | 0         | 21.89                   | 21.96     | 21.88     | 23.00         |
|           |            | 1       | 13        | 21.84                   | 21.90     | 21.86     | 23.00         |
|           |            | 1       | 24        | 21.87                   | 21.81     | 21.81     | 23.00         |
|           |            | 12      | 0         | 21.77                   | 21.85     | 21.88     | 22.00         |
|           |            | 12      | 6         | 21.83                   | 21.66     | 21.91     | 22.00         |
|           |            | 12      | 13        | 21.82                   | 21.89     | 21.80     | 22.00         |
|           |            | 25      | 0         | 21.84                   | 21.81     | 21.84     | 22.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |           |           | Tune-up Limit |
|           |            |         |           | 23780/709               | 23790/710 | 23800/711 |               |
| 10MHz     | QPSK       | 1       | 0         | 23.74                   | 23.78     | 23.87     | 25.00         |
|           |            | 1       | 25        | 23.93                   | 24.03     | 23.81     | 25.00         |
|           |            | 1       | 49        | 23.94                   | 23.90     | 23.86     | 25.00         |
|           |            | 25      | 0         | 22.76                   | 22.79     | 22.73     | 24.00         |
|           |            | 25      | 13        | 22.87                   | 22.90     | 22.79     | 24.00         |
|           |            | 25      | 25        | 22.83                   | 22.88     | 22.87     | 24.00         |
|           |            | 50      | 0         | 22.81                   | 22.82     | 22.80     | 24.00         |
|           | 16QAM      | 1       | 0         | 23.05                   | 23.23     | 22.98     | 24.00         |
|           |            | 1       | 25        | 23.01                   | 23.14     | 23.03     | 24.00         |
|           |            | 1       | 49        | 23.07                   | 23.01     | 23.10     | 24.00         |
|           |            | 25      | 0         | 21.68                   | 21.72     | 21.86     | 23.00         |
|           |            | 25      | 13        | 21.72                   | 21.79     | 21.84     | 23.00         |
|           |            | 25      | 25        | 21.79                   | 21.94     | 21.77     | 23.00         |
|           |            | 50      | 0         | 21.85                   | 21.68     | 21.69     | 23.00         |
|           | 64QAM      | 1       | 0         | 21.84                   | 21.93     | 21.83     | 23.00         |
|           |            | 1       | 25        | 21.81                   | 21.89     | 21.83     | 23.00         |
|           |            | 1       | 49        | 21.85                   | 21.76     | 21.79     | 23.00         |
|           |            | 25      | 0         | 21.74                   | 21.84     | 21.86     | 22.00         |
|           |            | 25      | 13        | 21.79                   | 21.63     | 21.87     | 22.00         |
|           |            | 25      | 25        | 21.80                   | 21.85     | 21.77     | 22.00         |
|           |            | 50      | 0         | 21.82                   | 21.77     | 21.81     | 22.00         |

| LTE FDD Band 17<br>(Hotspot on+Receiver on)<br>(Hotspot on+Receiver off+SAR sensor on Level D1&D2)<br>(Hotspot on+Receiver off+SAR sensor on Level D3)<br>(Hotspot on+Receiver off+SAR sensor on Level D7)<br>(sensor off+hotspot on) |            |         |           | Conducted Power(dBm)    |           |             | Tune-up Limit |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------|-----------|-------------------------|-----------|-------------|---------------|
| Bandwidth                                                                                                                                                                                                                             | Modulation | RB size | RB offset | Channel/Frequency (MHz) |           |             |               |
|                                                                                                                                                                                                                                       |            |         |           | 23755/706.5             | 23790/710 | 23825/713.5 |               |
| 5MHz                                                                                                                                                                                                                                  | QPSK       | 1       | 0         | 23.14                   | 23.12     | 23.18       | 24.50         |
|                                                                                                                                                                                                                                       |            | 1       | 13        | 23.24                   | 23.24     | 23.20       | 24.50         |
|                                                                                                                                                                                                                                       |            | 1       | 24        | 23.35                   | 23.30     | 23.08       | 24.50         |
|                                                                                                                                                                                                                                       |            | 12      | 0         | 22.58                   | 22.57     | 22.53       | 24.00         |
|                                                                                                                                                                                                                                       |            | 12      | 6         | 22.72                   | 22.76     | 22.67       | 24.00         |
|                                                                                                                                                                                                                                       |            | 12      | 13        | 22.65                   | 22.67     | 22.79       | 24.00         |
|                                                                                                                                                                                                                                       |            | 25      | 0         | 22.49                   | 22.69     | 22.57       | 24.00         |
|                                                                                                                                                                                                                                       | 16QAM      | 1       | 0         | 23.10                   | 23.20     | 23.07       | 24.00         |
|                                                                                                                                                                                                                                       |            | 1       | 13        | 23.10                   | 22.79     | 22.98       | 24.00         |
|                                                                                                                                                                                                                                       |            | 1       | 24        | 23.06                   | 23.07     | 22.81       | 24.00         |
|                                                                                                                                                                                                                                       |            | 12      | 0         | 21.61                   | 21.51     | 21.52       | 23.00         |
|                                                                                                                                                                                                                                       |            | 12      | 6         | 21.53                   | 21.54     | 21.61       | 23.00         |
|                                                                                                                                                                                                                                       |            | 12      | 13        | 21.54                   | 21.60     | 21.64       | 23.00         |
|                                                                                                                                                                                                                                       |            | 25      | 0         | 21.50                   | 21.59     | 21.62       | 23.00         |
|                                                                                                                                                                                                                                       | 64QAM      | 1       | 0         | 22.52                   | 22.69     | 22.87       | 23.00         |
|                                                                                                                                                                                                                                       |            | 1       | 13        | 22.59                   | 22.69     | 22.57       | 23.00         |
|                                                                                                                                                                                                                                       |            | 1       | 24        | 22.68                   | 22.75     | 22.53       | 23.00         |
|                                                                                                                                                                                                                                       |            | 12      | 0         | 21.54                   | 21.47     | 21.48       | 22.00         |
|                                                                                                                                                                                                                                       |            | 12      | 6         | 21.61                   | 21.52     | 21.51       | 22.00         |
|                                                                                                                                                                                                                                       |            | 12      | 13        | 21.57                   | 21.80     | 21.62       | 22.00         |
|                                                                                                                                                                                                                                       |            | 25      | 0         | 21.49                   | 21.66     | 21.65       | 22.00         |
| Bandwidth                                                                                                                                                                                                                             | Modulation | RB size | RB offset | Channel/Frequency (MHz) |           |             | Tune-up Limit |
|                                                                                                                                                                                                                                       |            |         |           | 23780/709               | 23790/710 | 23800/711   |               |
| 10MHz                                                                                                                                                                                                                                 | QPSK       | 1       | 0         | 23.12                   | 23.05     | 23.16       | 24.50         |
|                                                                                                                                                                                                                                       |            | 1       | 25        | 23.24                   | 23.24     | 23.19       | 24.50         |
|                                                                                                                                                                                                                                       |            | 1       | 49        | 23.32                   | 23.28     | 23.04       | 24.50         |
|                                                                                                                                                                                                                                       |            | 25      | 0         | 22.56                   | 22.53     | 22.50       | 24.00         |
|                                                                                                                                                                                                                                       |            | 25      | 13        | 22.70                   | 22.72     | 22.64       | 24.00         |
|                                                                                                                                                                                                                                       |            | 25      | 25        | 22.61                   | 22.63     | 22.76       | 24.00         |
|                                                                                                                                                                                                                                       |            | 50      | 0         | 22.52                   | 22.62     | 22.52       | 24.00         |
|                                                                                                                                                                                                                                       | 16QAM      | 1       | 0         | 23.05                   | 23.17     | 23.02       | 24.00         |
|                                                                                                                                                                                                                                       |            | 1       | 25        | 23.07                   | 22.78     | 22.95       | 24.00         |
|                                                                                                                                                                                                                                       |            | 1       | 49        | 23.04                   | 23.02     | 22.79       | 24.00         |
|                                                                                                                                                                                                                                       |            | 25      | 0         | 21.58                   | 21.50     | 21.50       | 23.00         |

|  |       |    |    |       |       |       |       |
|--|-------|----|----|-------|-------|-------|-------|
|  |       | 25 | 13 | 21.49 | 21.51 | 21.57 | 23.00 |
|  |       | 25 | 25 | 21.52 | 21.56 | 21.61 | 23.00 |
|  |       | 50 | 0  | 21.48 | 21.55 | 21.59 | 23.00 |
|  | 64QAM | 1  | 0  | 22.47 | 22.66 | 22.82 | 23.00 |
|  |       | 1  | 25 | 22.56 | 22.68 | 22.54 | 23.00 |
|  |       | 1  | 49 | 22.66 | 22.70 | 22.51 | 23.00 |
|  |       | 25 | 0  | 21.51 | 21.46 | 21.46 | 22.00 |
|  |       | 25 | 13 | 21.57 | 21.49 | 21.47 | 22.00 |
|  |       | 25 | 25 | 21.55 | 21.76 | 21.59 | 22.00 |
|  |       | 50 | 0  | 21.47 | 21.62 | 21.62 | 22.00 |

| LTE FDD Band 26<br>(Receiver on)<br>(Receiver off+SAR sensor on Level D1&D2)<br>(Receiver off+SAR sensor on Level D3)<br>(Receiver off+SAR sensor on Level D7)<br>(Sensor off+Hotspot off) |            |         |           | Conducted Power(dBm)    |             |             | Tune-up<br>Limit |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------|-----------|-------------------------|-------------|-------------|------------------|
| Bandwidth                                                                                                                                                                                  | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             |                  |
|                                                                                                                                                                                            |            |         |           | 26697/814.7             | 26865/831.5 | 27033/848.3 |                  |
| 1.4MHz                                                                                                                                                                                     | QPSK       | 1       | 0         | 23.65                   | 23.63       | 23.64       | 25.00            |
|                                                                                                                                                                                            |            | 1       | 2         | 23.72                   | 23.73       | 23.62       | 25.00            |
|                                                                                                                                                                                            |            | 1       | 5         | 23.70                   | 23.63       | 23.51       | 25.00            |
|                                                                                                                                                                                            |            | 3       | 0         | 23.68                   | 23.73       | 23.74       | 25.00            |
|                                                                                                                                                                                            |            | 3       | 2         | 23.53                   | 23.71       | 23.40       | 25.00            |
|                                                                                                                                                                                            |            | 3       | 3         | 23.43                   | 23.39       | 23.43       | 25.00            |
|                                                                                                                                                                                            |            | 6       | 0         | 22.60                   | 22.57       | 22.66       | 24.00            |
|                                                                                                                                                                                            | 16QAM      | 1       | 0         | 23.13                   | 22.93       | 23.05       | 24.00            |
|                                                                                                                                                                                            |            | 1       | 2         | 23.11                   | 23.01       | 22.93       | 24.00            |
|                                                                                                                                                                                            |            | 1       | 5         | 22.88                   | 22.92       | 22.87       | 24.00            |
|                                                                                                                                                                                            |            | 3       | 0         | 22.62                   | 22.52       | 22.55       | 24.00            |
|                                                                                                                                                                                            |            | 3       | 2         | 22.47                   | 22.45       | 22.43       | 24.00            |
|                                                                                                                                                                                            |            | 3       | 3         | 22.43                   | 22.34       | 22.36       | 23.00            |
|                                                                                                                                                                                            |            | 6       | 0         | 21.60                   | 21.63       | 21.68       | 23.00            |
|                                                                                                                                                                                            | 64QAM      | 1       | 0         | 22.05                   | 21.96       | 22.05       | 23.00            |
|                                                                                                                                                                                            |            | 1       | 2         | 21.95                   | 22.01       | 22.01       | 23.00            |
|                                                                                                                                                                                            |            | 1       | 5         | 22.11                   | 22.20       | 22.12       | 23.00            |
|                                                                                                                                                                                            |            | 3       | 0         | 22.55                   | 22.42       | 22.40       | 23.00            |
|                                                                                                                                                                                            |            | 3       | 2         | 22.33                   | 22.47       | 22.54       | 23.00            |
|                                                                                                                                                                                            |            | 3       | 3         | 22.50                   | 22.46       | 22.28       | 23.00            |
|                                                                                                                                                                                            |            | 6       | 0         | 21.11                   | 21.22       | 21.20       | 22.00            |
| Bandwidth                                                                                                                                                                                  | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up<br>Limit |
|                                                                                                                                                                                            |            |         |           | 26705/815.5             | 26865/831.5 | 27025/847.5 |                  |
| 3MHz                                                                                                                                                                                       | QPSK       | 1       | 0         | 23.66                   | 23.66       | 23.66       | 25.00            |

|           |            | 1       | 7         | 23.71                   | 23.77       | 23.67       | 25.00         |
|-----------|------------|---------|-----------|-------------------------|-------------|-------------|---------------|
|           |            | 1       | 14        | 23.72                   | 23.67       | 23.54       | 25.00         |
|           |            | 8       | 0         | 22.78                   | 22.85       | 22.87       | 24.00         |
|           |            | 8       | 4         | 22.66                   | 22.82       | 22.51       | 24.00         |
|           |            | 8       | 7         | 22.53                   | 22.52       | 22.54       | 24.00         |
|           |            | 15      | 0         | 22.64                   | 22.62       | 22.71       | 24.00         |
|           | 16QAM      | 1       | 0         | 23.15                   | 22.94       | 23.07       | 24.00         |
|           |            | 1       | 7         | 23.14                   | 23.03       | 22.97       | 24.00         |
|           |            | 1       | 14        | 22.90                   | 22.96       | 22.89       | 24.00         |
|           |            | 8       | 0         | 21.74                   | 21.66       | 21.68       | 23.00         |
|           |            | 8       | 4         | 21.57                   | 21.57       | 21.54       | 23.00         |
|           |            | 8       | 7         | 21.53                   | 21.46       | 21.49       | 23.00         |
|           |            | 15      | 0         | 21.64                   | 21.68       | 21.70       | 23.00         |
|           | 64QAM      | 1       | 0         | 22.07                   | 21.97       | 22.07       | 23.00         |
|           |            | 1       | 7         | 21.98                   | 22.03       | 22.03       | 23.00         |
|           |            | 1       | 14        | 22.13                   | 22.19       | 22.14       | 23.00         |
|           |            | 8       | 0         | 21.67                   | 21.56       | 21.53       | 22.00         |
|           |            | 8       | 4         | 21.43                   | 21.59       | 21.65       | 22.00         |
|           |            | 8       | 7         | 21.60                   | 21.58       | 21.41       | 22.00         |
|           |            | 15      | 0         | 21.15                   | 21.27       | 21.22       | 22.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up Limit |
|           |            |         |           | 26715/816.5             | 26865/831.5 | 27015/846.5 |               |
| 5MHz      | QPSK       | 1       | 0         | 23.64                   | 23.65       | 23.63       | 25.00         |
|           |            | 1       | 13        | 23.68                   | 23.72       | 23.63       | 25.00         |
|           |            | 1       | 24        | 23.70                   | 23.63       | 23.51       | 25.00         |
|           |            | 12      | 0         | 22.75                   | 22.80       | 22.83       | 24.00         |
|           |            | 12      | 6         | 22.63                   | 22.77       | 22.47       | 24.00         |
|           |            | 12      | 13        | 22.51                   | 22.48       | 22.49       | 24.00         |
|           |            | 25      | 0         | 22.60                   | 22.60       | 22.67       | 24.00         |
|           | 16QAM      | 1       | 0         | 23.13                   | 22.91       | 23.05       | 24.00         |
|           |            | 1       | 13        | 23.11                   | 22.99       | 22.94       | 24.00         |
|           |            | 1       | 24        | 22.87                   | 22.94       | 22.86       | 24.00         |
|           |            | 12      | 0         | 21.71                   | 21.61       | 21.64       | 23.00         |
|           |            | 12      | 6         | 21.55                   | 21.53       | 21.51       | 23.00         |
|           |            | 12      | 13        | 21.50                   | 21.41       | 21.45       | 23.00         |
|           |            | 25      | 0         | 21.61                   | 21.63       | 21.66       | 23.00         |
|           | 64QAM      | 1       | 0         | 22.05                   | 21.98       | 22.05       | 23.00         |
|           |            | 1       | 13        | 21.95                   | 22.03       | 22.00       | 23.00         |
|           |            | 1       | 24        | 22.14                   | 22.17       | 22.11       | 23.00         |
|           |            | 12      | 0         | 21.64                   | 21.51       | 21.53       | 22.00         |
|           |            | 12      | 6         | 21.41                   | 21.55       | 21.62       | 22.00         |
|           |            | 12      | 13        | 21.57                   | 21.53       | 21.37       | 22.00         |
|           |            | 25      | 0         | 21.12                   | 21.22       | 21.18       | 22.00         |

| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up Limit |
|-----------|------------|---------|-----------|-------------------------|-------------|-------------|---------------|
|           |            |         |           | 26750/820               | 26865/831.5 | 26990/844   |               |
| 10MHz     | QPSK       | 1       | 0         | 23.65                   | 23.62       | 23.64       | 25.00         |
|           |            | 1       | 25        | 23.69                   | 23.76       | 23.64       | 25.00         |
|           |            | 1       | 49        | 23.69                   | 23.62       | 23.50       | 25.00         |
|           |            | 25      | 0         | 22.76                   | 22.81       | 22.84       | 24.00         |
|           |            | 25      | 13        | 22.63                   | 22.77       | 22.47       | 24.00         |
|           |            | 25      | 25        | 22.50                   | 22.49       | 22.50       | 24.00         |
|           |            | 50      | 0         | 22.62                   | 22.58       | 22.66       | 24.00         |
|           | 16QAM      | 1       | 0         | 23.10                   | 22.92       | 23.05       | 24.00         |
|           |            | 1       | 25        | 23.12                   | 23.00       | 22.95       | 24.00         |
|           |            | 1       | 49        | 22.87                   | 22.92       | 22.86       | 24.00         |
|           |            | 25      | 0         | 21.71                   | 21.64       | 21.65       | 23.00         |
|           |            | 25      | 13        | 21.54                   | 21.52       | 21.50       | 23.00         |
|           |            | 25      | 25        | 21.51                   | 21.42       | 21.46       | 23.00         |
|           |            | 50      | 0         | 21.61                   | 21.63       | 21.66       | 23.00         |
|           | 64QAM      | 1       | 0         | 22.02                   | 21.95       | 22.05       | 23.00         |
|           |            | 1       | 25        | 21.96                   | 22.00       | 22.01       | 23.00         |
|           |            | 1       | 49        | 22.14                   | 22.18       | 22.15       | 23.00         |
|           |            | 25      | 0         | 21.66                   | 21.58       | 21.54       | 22.00         |
|           |            | 25      | 13        | 21.41                   | 21.56       | 21.64       | 22.00         |
|           |            | 25      | 25        | 21.58                   | 21.54       | 21.38       | 22.00         |
|           |            | 50      | 0         | 21.12                   | 21.22       | 21.18       | 22.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up Limit |
|           |            |         |           | 26775/822.5             | 26865/831.5 | 26965/841.5 |               |
| 15MHz     | QPSK       | 1       | 0         | 23.62                   | 23.58       | 23.61       | 25.00         |
|           |            | 1       | 38        | 23.68                   | 23.72       | 23.62       | 25.00         |
|           |            | 1       | 74        | 23.67                   | 23.61       | 23.47       | 25.00         |
|           |            | 36      | 0         | 22.73                   | 22.76       | 22.80       | 24.00         |
|           |            | 36      | 18        | 22.61                   | 22.73       | 22.44       | 24.00         |
|           |            | 36      | 39        | 22.47                   | 22.44       | 22.46       | 24.00         |
|           |            | 75      | 0         | 22.59                   | 22.53       | 22.62       | 24.00         |
|           | 16QAM      | 1       | 0         | 23.01                   | 22.88       | 23.00       | 24.00         |
|           |            | 1       | 38        | 23.08                   | 22.98       | 22.91       | 24.00         |
|           |            | 1       | 74        | 22.85                   | 22.89       | 22.84       | 24.00         |
|           |            | 36      | 0         | 21.68                   | 21.60       | 21.62       | 23.00         |
|           |            | 36      | 18        | 21.51                   | 21.50       | 21.47       | 23.00         |
|           |            | 36      | 39        | 21.48                   | 21.37       | 21.42       | 23.00         |
|           |            | 75      | 0         | 21.59                   | 21.59       | 21.63       | 23.00         |
|           | 64QAM      | 1       | 0         | 22.00                   | 21.91       | 22.00       | 23.00         |
|           |            | 1       | 38        | 21.92                   | 21.98       | 21.97       | 23.00         |
|           |            | 1       | 74        | 22.08                   | 22.12       | 22.09       | 23.00         |
|           |            | 36      | 0         | 21.61                   | 21.50       | 21.47       | 22.00         |



|  |  |    |    |       |       |       |       |
|--|--|----|----|-------|-------|-------|-------|
|  |  | 36 | 18 | 21.37 | 21.52 | 21.58 | 22.00 |
|  |  | 36 | 39 | 21.55 | 21.49 | 21.34 | 22.00 |
|  |  | 75 | 0  | 21.10 | 21.18 | 21.15 | 22.00 |

| LTE FDD Band 26<br>( Hotspot on+Receiver on)<br>(Hotspot on+Receiver off+SAR sensor on Level D1&D2)<br>(Hotspot on+Receiver off+SAR sensor on Level D3)<br>(Hotspot on+Receiver off+SAR sensor on Level D7)<br>(sensor off+hotspot on) |            |         |           | Conducted Power(dBm)    |             |             | Tune-up<br>Limit |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------|-----------|-------------------------|-------------|-------------|------------------|
| Bandwidth                                                                                                                                                                                                                              | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             |                  |
|                                                                                                                                                                                                                                        |            |         |           | 26697/814.7             | 26865/831.5 | 27033/848.3 |                  |
| 1.4MHz                                                                                                                                                                                                                                 | QPSK       | 1       | 0         | 22.66                   | 22.66       | 22.71       | 24.00            |
|                                                                                                                                                                                                                                        |            | 1       | 2         | 22.74                   | 22.71       | 22.53       | 24.00            |
|                                                                                                                                                                                                                                        |            | 1       | 5         | 22.69                   | 22.52       | 22.65       | 24.00            |
|                                                                                                                                                                                                                                        |            | 3       | 0         | 23.67                   | 23.73       | 23.52       | 24.00            |
|                                                                                                                                                                                                                                        |            | 3       | 2         | 23.51                   | 23.79       | 23.50       | 24.00            |
|                                                                                                                                                                                                                                        |            | 3       | 3         | 23.56                   | 23.69       | 23.45       | 24.00            |
|                                                                                                                                                                                                                                        |            | 6       | 0         | 22.57                   | 22.71       | 22.61       | 24.00            |
|                                                                                                                                                                                                                                        | 16QAM      | 1       | 0         | 23.01                   | 22.80       | 23.01       | 24.00            |
|                                                                                                                                                                                                                                        |            | 1       | 2         | 22.99                   | 22.87       | 22.89       | 24.00            |
|                                                                                                                                                                                                                                        |            | 1       | 5         | 22.75                   | 22.89       | 22.88       | 24.00            |
|                                                                                                                                                                                                                                        |            | 3       | 0         | 22.72                   | 22.69       | 22.66       | 24.00            |
|                                                                                                                                                                                                                                        |            | 3       | 2         | 22.52                   | 22.68       | 22.52       | 24.00            |
|                                                                                                                                                                                                                                        |            | 3       | 3         | 22.60                   | 22.40       | 22.51       | 24.00            |
|                                                                                                                                                                                                                                        |            | 6       | 0         | 21.65                   | 21.62       | 21.69       | 23.00            |
|                                                                                                                                                                                                                                        | 64QAM      | 1       | 0         | 22.57                   | 22.56       | 22.83       | 23.00            |
|                                                                                                                                                                                                                                        |            | 1       | 2         | 22.60                   | 22.59       | 22.49       | 23.00            |
|                                                                                                                                                                                                                                        |            | 1       | 5         | 22.47                   | 22.78       | 22.69       | 23.00            |
|                                                                                                                                                                                                                                        |            | 3       | 0         | 22.67                   | 22.64       | 22.52       | 23.00            |
|                                                                                                                                                                                                                                        |            | 3       | 2         | 22.58                   | 22.70       | 22.42       | 23.00            |
|                                                                                                                                                                                                                                        |            | 3       | 3         | 22.62                   | 22.42       | 22.47       | 23.00            |
|                                                                                                                                                                                                                                        |            | 6       | 0         | 21.65                   | 21.64       | 21.67       | 22.00            |
| Bandwidth                                                                                                                                                                                                                              | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up<br>Limit |
|                                                                                                                                                                                                                                        |            |         |           | 26705/815.5             | 26865/831.5 | 27025/847.5 |                  |
| 3MHz                                                                                                                                                                                                                                   | QPSK       | 1       | 0         | 22.68                   | 22.70       | 22.74       | 24.00            |
|                                                                                                                                                                                                                                        |            | 1       | 7         | 22.77                   | 22.76       | 22.57       | 24.00            |
|                                                                                                                                                                                                                                        |            | 1       | 14        | 22.72                   | 22.57       | 22.69       | 24.00            |
|                                                                                                                                                                                                                                        |            | 8       | 0         | 22.77                   | 22.85       | 22.65       | 24.00            |
|                                                                                                                                                                                                                                        |            | 8       | 4         | 22.63                   | 22.89       | 22.62       | 24.00            |
|                                                                                                                                                                                                                                        |            | 8       | 7         | 22.66                   | 22.80       | 22.55       | 24.00            |
|                                                                                                                                                                                                                                        |            | 15      | 0         | 22.60                   | 22.75       | 22.64       | 24.00            |

|           | 16QAM      | 1       | 0         | 23.04                   | 22.82       | 23.04       | 24.00         |
|-----------|------------|---------|-----------|-------------------------|-------------|-------------|---------------|
|           |            | 1       | 7         | 23.02                   | 22.92       | 22.93       | 24.00         |
|           |            | 1       | 14        | 22.77                   | 22.93       | 22.91       | 24.00         |
|           |            | 8       | 0         | 21.83                   | 21.82       | 21.78       | 23.00         |
|           |            | 8       | 4         | 21.63                   | 21.81       | 21.64       | 23.00         |
|           |            | 8       | 7         | 21.70                   | 21.52       | 21.64       | 23.00         |
|           |            | 15      | 0         | 21.68                   | 21.66       | 21.72       | 23.00         |
|           | 64QAM      | 1       | 0         | 22.60                   | 22.58       | 22.86       | 23.00         |
|           |            | 1       | 7         | 22.63                   | 22.64       | 22.53       | 23.00         |
|           |            | 1       | 14        | 22.49                   | 22.82       | 22.72       | 23.00         |
|           |            | 8       | 0         | 21.78                   | 21.77       | 21.64       | 22.00         |
|           |            | 8       | 4         | 21.69                   | 21.83       | 21.54       | 22.00         |
|           |            | 8       | 7         | 21.72                   | 21.54       | 21.60       | 22.00         |
|           |            | 15      | 0         | 21.68                   | 21.68       | 21.70       | 22.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up Limit |
|           |            |         |           | 26715/816.5             | 26865/831.5 | 27015/846.5 |               |
| 5MHz      | QPSK       | 1       | 0         | 22.65                   | 22.68       | 22.70       | 24.00         |
|           |            | 1       | 13        | 22.75                   | 22.72       | 22.54       | 24.00         |
|           |            | 1       | 24        | 22.69                   | 22.52       | 22.65       | 24.00         |
|           |            | 12      | 0         | 22.74                   | 22.80       | 22.61       | 24.00         |
|           |            | 12      | 6         | 22.61                   | 22.85       | 22.57       | 24.00         |
|           |            | 12      | 13        | 22.64                   | 22.78       | 22.51       | 24.00         |
|           |            | 25      | 0         | 22.58                   | 22.74       | 22.62       | 24.00         |
|           | 16QAM      | 1       | 0         | 23.01                   | 22.78       | 23.01       | 24.00         |
|           |            | 1       | 13        | 22.99                   | 22.90       | 22.90       | 24.00         |
|           |            | 1       | 24        | 22.74                   | 22.91       | 22.87       | 24.00         |
|           |            | 12      | 0         | 21.81                   | 21.78       | 21.75       | 23.00         |
|           |            | 12      | 6         | 21.60                   | 21.76       | 21.60       | 23.00         |
|           |            | 12      | 13        | 21.67                   | 21.47       | 21.60       | 23.00         |
|           |            | 25      | 0         | 21.66                   | 21.62       | 21.67       | 23.00         |
|           | 64QAM      | 1       | 0         | 22.57                   | 22.54       | 22.83       | 23.00         |
|           |            | 1       | 13        | 22.60                   | 22.62       | 22.50       | 23.00         |
|           |            | 1       | 24        | 22.46                   | 22.80       | 22.68       | 23.00         |
|           |            | 12      | 0         | 21.76                   | 21.73       | 21.61       | 22.00         |
|           |            | 12      | 6         | 21.66                   | 21.78       | 21.50       | 22.00         |
|           |            | 12      | 13        | 21.69                   | 21.49       | 21.56       | 22.00         |
|           |            | 25      | 0         | 21.66                   | 21.64       | 21.65       | 22.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up Limit |
|           |            |         |           | 26750/820               | 26865/831.5 | 26990/844   |               |
| 10MHz     | QPSK       | 1       | 0         | 22.67                   | 22.69       | 22.73       | 24.00         |
|           |            | 1       | 25        | 22.78                   | 22.77       | 22.58       | 24.00         |
|           |            | 1       | 49        | 22.71                   | 22.56       | 22.68       | 24.00         |
|           |            | 25      | 0         | 22.77                   | 22.85       | 22.65       | 24.00         |

|           |            | 25      | 13        | 22.64                   | 22.90       | 22.61       | 24.00         |
|-----------|------------|---------|-----------|-------------------------|-------------|-------------|---------------|
|           |            | 25      | 25        | 22.66                   | 22.82       | 22.56       | 24.00         |
|           |            | 50      | 0         | 22.66                   | 22.76       | 22.66       | 24.00         |
|           | 16QAM      | 1       | 0         | 23.03                   | 22.81       | 23.03       | 24.00         |
|           |            | 1       | 25        | 23.02                   | 22.94       | 22.93       | 24.00         |
|           |            | 1       | 49        | 22.77                   | 22.93       | 22.90       | 24.00         |
|           |            | 25      | 0         | 21.84                   | 21.83       | 21.79       | 23.00         |
|           |            | 25      | 13        | 21.62                   | 21.80       | 21.63       | 23.00         |
|           |            | 25      | 25        | 21.70                   | 21.52       | 21.64       | 23.00         |
|           |            | 50      | 0         | 21.69                   | 21.67       | 21.71       | 23.00         |
|           |            | 1       | 0         | 22.59                   | 22.57       | 22.85       | 23.00         |
|           | 64QAM      | 1       | 25        | 22.63                   | 22.66       | 22.53       | 23.00         |
|           |            | 1       | 49        | 22.49                   | 22.82       | 22.71       | 23.00         |
|           |            | 25      | 0         | 21.79                   | 21.78       | 21.65       | 22.00         |
|           |            | 25      | 13        | 21.68                   | 21.82       | 21.53       | 22.00         |
|           |            | 25      | 25        | 21.72                   | 21.54       | 21.60       | 22.00         |
|           |            | 50      | 0         | 21.69                   | 21.69       | 21.69       | 22.00         |
|           |            | 1       | 0         | 22.59                   | 22.57       | 22.85       | 23.00         |
|           |            | 1       | 25        | 22.63                   | 22.66       | 22.53       | 23.00         |
|           |            | 1       | 49        | 22.49                   | 22.82       | 22.71       | 23.00         |
|           |            | 25      | 0         | 21.79                   | 21.78       | 21.65       | 22.00         |
|           |            | 25      | 13        | 21.68                   | 21.82       | 21.53       | 22.00         |
|           |            | 25      | 25        | 21.72                   | 21.54       | 21.60       | 22.00         |
|           |            | 50      | 0         | 21.69                   | 21.69       | 21.69       | 22.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up Limit |
|           |            |         |           | 26775/822.5             | 26865/831.5 | 26965/841.5 |               |
| 15MHz     | QPSK       | 1       | 0         | 22.63                   | 22.61       | 22.68       | 24.00         |
|           |            | 1       | 38        | 22.75                   | 22.72       | 22.53       | 24.00         |
|           |            | 1       | 74        | 22.66                   | 22.50       | 22.61       | 24.00         |
|           |            | 36      | 0         | 22.72                   | 22.76       | 22.58       | 24.00         |
|           |            | 36      | 18        | 22.59                   | 22.81       | 22.54       | 24.00         |
|           |            | 36      | 39        | 22.60                   | 22.74       | 22.48       | 24.00         |
|           |            | 75      | 0         | 22.61                   | 22.67       | 22.57       | 24.00         |
|           | 16QAM      | 1       | 0         | 22.76                   | 22.75       | 22.96       | 24.00         |
|           |            | 1       | 38        | 22.96                   | 22.89       | 22.87       | 24.00         |
|           |            | 1       | 74        | 22.72                   | 22.86       | 22.85       | 24.00         |
|           |            | 36      | 0         | 21.78                   | 21.77       | 21.73       | 23.00         |
|           |            | 36      | 18        | 21.56                   | 21.73       | 21.56       | 23.00         |
|           |            | 36      | 39        | 21.65                   | 21.43       | 21.57       | 23.00         |
|           |            | 75      | 0         | 21.64                   | 21.58       | 21.64       | 23.00         |
|           | 64QAM      | 1       | 0         | 22.52                   | 22.51       | 22.78       | 23.00         |
|           |            | 1       | 38        | 22.57                   | 22.61       | 22.47       | 23.00         |
|           |            | 1       | 74        | 22.44                   | 22.75       | 22.66       | 23.00         |
|           |            | 36      | 0         | 21.73                   | 21.72       | 21.59       | 22.00         |
|           |            | 36      | 18        | 21.62                   | 21.75       | 21.46       | 22.00         |
|           |            | 36      | 39        | 21.67                   | 21.45       | 21.53       | 22.00         |
|           |            | 75      | 0         | 21.64                   | 21.60       | 21.62       | 22.00         |

| LTE TDD Band 38<br>(Receiver on)<br>(Receiver off+SAR sensor on Level D3)<br>(Receiver off+SAR sensor on Level D7)<br>(Sensor off+Hotspot off) |            |         |           | Conducted Power(dBm)    |            |              | Tune-up<br>Limit |
|------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------|-----------|-------------------------|------------|--------------|------------------|
| Bandwidth                                                                                                                                      | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              |                  |
|                                                                                                                                                |            |         |           | 37775/2572.5            | 38000/2595 | 38225/2617.5 |                  |
| 5MHz                                                                                                                                           | QPSK       | 1       | 0         | 22.96                   | 23.09      | 23.00        | 23.63            |
|                                                                                                                                                |            | 1       | 13        | 22.77                   | 22.99      | 22.81        | 23.63            |
|                                                                                                                                                |            | 1       | 24        | 23.13                   | 23.03      | 23.12        | 23.63            |
|                                                                                                                                                |            | 12      | 0         | 21.89                   | 21.87      | 21.91        | 22.63            |
|                                                                                                                                                |            | 12      | 6         | 21.81                   | 21.79      | 21.84        | 22.63            |
|                                                                                                                                                |            | 12      | 13        | 21.89                   | 21.86      | 21.90        | 22.63            |
|                                                                                                                                                |            | 25      | 0         | 21.83                   | 21.85      | 21.89        | 22.63            |
|                                                                                                                                                | 16QAM      | 1       | 0         | 22.18                   | 22.27      | 22.28        | 22.63            |
|                                                                                                                                                |            | 1       | 13        | 22.16                   | 22.17      | 21.20        | 22.63            |
|                                                                                                                                                |            | 1       | 24        | 22.25                   | 22.25      | 22.29        | 22.63            |
|                                                                                                                                                |            | 12      | 0         | 20.83                   | 20.76      | 20.83        | 21.63            |
|                                                                                                                                                |            | 12      | 6         | 20.77                   | 20.71      | 20.89        | 21.63            |
|                                                                                                                                                |            | 12      | 13        | 20.81                   | 20.80      | 20.84        | 21.63            |
|                                                                                                                                                |            | 25      | 0         | 20.72                   | 20.70      | 20.85        | 21.63            |
|                                                                                                                                                | 64QAM      | 1       | 0         | 20.72                   | 20.92      | 20.82        | 21.63            |
|                                                                                                                                                |            | 1       | 13        | 20.82                   | 20.74      | 20.73        | 21.63            |
|                                                                                                                                                |            | 1       | 24        | 20.92                   | 20.93      | 20.99        | 21.63            |
|                                                                                                                                                |            | 12      | 0         | 20.26                   | 20.20      | 20.19        | 20.63            |
|                                                                                                                                                |            | 12      | 6         | 20.18                   | 20.23      | 20.30        | 20.63            |
|                                                                                                                                                |            | 12      | 13        | 20.25                   | 20.21      | 20.16        | 20.63            |
|                                                                                                                                                |            | 25      | 0         | 20.25                   | 20.31      | 20.35        | 20.63            |
| Bandwidth                                                                                                                                      | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up<br>Limit |
|                                                                                                                                                |            |         |           | 37800/2575              | 38000/2595 | 38200/2615   |                  |
| 10MHz                                                                                                                                          | QPSK       | 1       | 0         | 22.98                   | 23.10      | 23.03        | 23.63            |
|                                                                                                                                                |            | 1       | 25        | 22.80                   | 23.04      | 22.85        | 23.63            |
|                                                                                                                                                |            | 1       | 49        | 23.15                   | 23.07      | 23.15        | 23.63            |
|                                                                                                                                                |            | 25      | 0         | 21.92                   | 21.92      | 21.95        | 22.63            |
|                                                                                                                                                |            | 25      | 13        | 21.84                   | 21.84      | 21.88        | 22.63            |
|                                                                                                                                                |            | 25      | 25        | 21.91                   | 21.90      | 21.95        | 22.63            |
|                                                                                                                                                |            | 50      | 0         | 21.87                   | 21.87      | 21.93        | 22.63            |
|                                                                                                                                                | 16QAM      | 1       | 0         | 22.20                   | 22.30      | 22.30        | 22.63            |
|                                                                                                                                                |            | 1       | 25        | 22.19                   | 22.21      | 21.23        | 22.63            |
|                                                                                                                                                |            | 1       | 49        | 22.28                   | 22.27      | 22.32        | 22.63            |
|                                                                                                                                                |            | 25      | 0         | 20.86                   | 20.81      | 20.87        | 21.63            |
|                                                                                                                                                |            | 25      | 13        | 20.79                   | 20.75      | 20.92        | 21.63            |
| 25                                                                                                                                             | 25         | 20.84   | 20.85     | 20.88                   | 21.63      |              |                  |

|           | 64QAM      | 50      | 0         | 20.75                   | 20.75      | 20.89        | 21.63         |
|-----------|------------|---------|-----------|-------------------------|------------|--------------|---------------|
|           |            | 1       | 0         | 20.74                   | 20.91      | 20.84        | 21.63         |
|           |            | 1       | 25        | 20.85                   | 20.74      | 20.76        | 21.63         |
|           |            | 1       | 49        | 20.91                   | 20.95      | 21.02        | 21.63         |
|           |            | 25      | 0         | 20.29                   | 20.25      | 20.19        | 20.63         |
|           |            | 25      | 13        | 20.20                   | 20.27      | 20.33        | 20.63         |
|           |            | 25      | 25        | 20.28                   | 20.26      | 20.20        | 20.63         |
|           |            | 50      | 0         | 20.28                   | 20.36      | 20.39        | 20.63         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 37825/2577.5            | 38000/2595 | 38175/2612.5 |               |
| 15MHz     | QPSK       | 1       | 0         | 22.97                   | 23.06      | 23.01        | 23.63         |
|           |            | 1       | 38        | 22.78                   | 23.03      | 22.82        | 23.63         |
|           |            | 1       | 74        | 23.12                   | 23.02      | 23.11        | 23.63         |
|           |            | 36      | 0         | 21.90                   | 21.88      | 21.92        | 22.63         |
|           |            | 36      | 18        | 21.81                   | 21.79      | 21.84        | 22.63         |
|           |            | 36      | 39        | 21.88                   | 21.87      | 21.91        | 22.63         |
|           |            | 75      | 0         | 21.85                   | 21.83      | 21.88        | 22.63         |
|           | 16QAM      | 1       | 0         | 22.15                   | 22.28      | 22.28        | 22.63         |
|           |            | 1       | 38        | 22.17                   | 22.18      | 21.21        | 22.63         |
|           |            | 1       | 74        | 22.25                   | 22.23      | 22.29        | 22.63         |
|           |            | 36      | 0         | 20.83                   | 20.79      | 20.84        | 21.63         |
|           |            | 36      | 18        | 20.76                   | 20.70      | 20.88        | 21.63         |
|           |            | 36      | 39        | 20.82                   | 20.81      | 20.85        | 21.63         |
|           |            | 75      | 0         | 20.72                   | 20.70      | 20.85        | 21.63         |
|           | 64QAM      | 1       | 0         | 20.69                   | 20.89      | 20.82        | 21.63         |
|           |            | 1       | 38        | 20.83                   | 20.71      | 20.74        | 21.63         |
|           |            | 1       | 74        | 20.92                   | 20.94      | 21.03        | 21.63         |
|           |            | 36      | 0         | 20.28                   | 20.27      | 20.20        | 20.63         |
|           |            | 36      | 18        | 20.18                   | 20.24      | 20.32        | 20.63         |
|           |            | 36      | 39        | 20.26                   | 20.22      | 20.17        | 20.63         |
|           |            | 75      | 0         | 20.25                   | 20.31      | 20.35        | 20.63         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 37850/2580              | 38000/2595 | 38150/2610   |               |
| 20MHz     | QPSK       | 1       | 0         | 22.94                   | 23.02      | 22.98        | 23.63         |
|           |            | 1       | 50        | 22.77                   | 22.99      | 22.80        | 23.63         |
|           |            | 1       | 99        | 23.10                   | 23.01      | 23.08        | 23.63         |
|           |            | 50      | 0         | 21.87                   | 21.83      | 21.88        | 22.63         |
|           |            | 50      | 25        | 21.79                   | 21.75      | 21.81        | 22.63         |
|           |            | 50      | 50        | 21.85                   | 21.82      | 21.87        | 22.63         |
|           |            | 100     | 0         | 21.82                   | 21.78      | 21.84        | 22.63         |
|           | 16QAM      | 1       | 0         | 22.23                   | 22.24      | 22.23        | 22.63         |
|           |            | 1       | 50        | 22.13                   | 22.16      | 21.17        | 22.63         |
|           |            | 1       | 99        | 22.23                   | 22.20      | 22.27        | 22.63         |

|  |       |     |    |       |       |       |       |
|--|-------|-----|----|-------|-------|-------|-------|
|  |       | 50  | 0  | 20.80 | 20.75 | 20.81 | 21.63 |
|  |       | 50  | 25 | 20.73 | 20.68 | 20.85 | 21.63 |
|  |       | 50  | 50 | 20.79 | 20.76 | 20.81 | 21.63 |
|  |       | 100 | 0  | 20.70 | 20.66 | 20.82 | 21.63 |
|  | 64QAM | 1   | 0  | 20.67 | 20.85 | 20.77 | 21.63 |
|  |       | 1   | 50 | 20.79 | 20.69 | 20.70 | 21.63 |
|  |       | 1   | 99 | 20.86 | 20.88 | 20.97 | 21.63 |
|  |       | 50  | 0  | 20.23 | 20.19 | 20.13 | 20.63 |
|  |       | 50  | 25 | 20.14 | 20.20 | 20.26 | 20.63 |
|  |       | 50  | 50 | 20.23 | 20.17 | 20.13 | 20.63 |
|  |       | 100 | 0  | 20.23 | 20.27 | 20.32 | 20.63 |

| LTE TDD Band 38<br>(Hotspot on+Receiver on)<br>(Hotspot on+Receiver off+SAR sensor on Level D3)<br>(Hotspot on+Receiver off+SAR sensor on Level D7)<br>(sensor off+hotspot on) |            |         |           | Conducted Power(dBm)    |            |              | Tune-up<br>Limit |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------|-----------|-------------------------|------------|--------------|------------------|
| Bandwidth                                                                                                                                                                      | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              |                  |
|                                                                                                                                                                                |            |         |           | 37775/2572.5            | 38000/2595 | 38225/2617.5 |                  |
| 5MHz                                                                                                                                                                           | QPSK       | 1       | 0         | 20.78                   | 20.82      | 20.65        | 21.63            |
|                                                                                                                                                                                |            | 1       | 13        | 20.62                   | 20.74      | 20.86        | 21.63            |
|                                                                                                                                                                                |            | 1       | 24        | 20.74                   | 20.82      | 20.84        | 21.63            |
|                                                                                                                                                                                |            | 12      | 0         | 20.56                   | 20.57      | 20.64        | 21.63            |
|                                                                                                                                                                                |            | 12      | 6         | 20.61                   | 20.66      | 20.72        | 21.63            |
|                                                                                                                                                                                |            | 12      | 13        | 20.86                   | 20.74      | 20.75        | 21.63            |
|                                                                                                                                                                                |            | 25      | 0         | 20.50                   | 20.63      | 20.78        | 21.63            |
|                                                                                                                                                                                | 16QAM      | 1       | 0         | 21.00                   | 21.01      | 21.02        | 21.63            |
|                                                                                                                                                                                |            | 1       | 13        | 20.72                   | 20.78      | 20.95        | 21.63            |
|                                                                                                                                                                                |            | 1       | 24        | 20.84                   | 21.00      | 21.05        | 21.63            |
|                                                                                                                                                                                |            | 12      | 0         | 20.54                   | 20.67      | 20.47        | 21.63            |
|                                                                                                                                                                                |            | 12      | 6         | 20.61                   | 20.68      | 20.58        | 21.63            |
|                                                                                                                                                                                |            | 12      | 13        | 20.51                   | 20.76      | 20.70        | 21.63            |
|                                                                                                                                                                                |            | 25      | 0         | 20.52                   | 20.57      | 20.60        | 21.63            |
|                                                                                                                                                                                | 64QAM      | 1       | 0         | 20.86                   | 20.61      | 20.87        | 21.63            |
|                                                                                                                                                                                |            | 1       | 13        | 21.02                   | 20.56      | 20.93        | 21.63            |
|                                                                                                                                                                                |            | 1       | 24        | 20.86                   | 20.67      | 20.91        | 21.63            |
|                                                                                                                                                                                |            | 12      | 0         | 20.52                   | 20.60      | 20.59        | 20.63            |
|                                                                                                                                                                                |            | 12      | 6         | 20.61                   | 20.58      | 20.58        | 20.63            |
|                                                                                                                                                                                |            | 12      | 13        | 20.51                   | 20.60      | 20.57        | 20.63            |
|                                                                                                                                                                                |            | 25      | 0         | 20.52                   | 20.56      | 20.60        | 20.63            |
| Bandwidth                                                                                                                                                                      | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up<br>Limit |
|                                                                                                                                                                                |            |         |           | 37800/2575              | 38000/2595 | 38200/2615   |                  |
| 10MHz                                                                                                                                                                          | QPSK       | 1       | 0         | 20.80                   | 20.83      | 20.68        | 21.63            |

|           |            | 1       | 25        | 20.65                   | 20.79      | 20.90        | 21.63         |
|-----------|------------|---------|-----------|-------------------------|------------|--------------|---------------|
|           |            | 1       | 49        | 20.76                   | 20.86      | 20.87        | 21.63         |
|           |            | 25      | 0         | 20.59                   | 20.62      | 20.68        | 21.63         |
|           |            | 25      | 13        | 20.64                   | 20.71      | 20.76        | 21.63         |
|           |            | 25      | 25        | 20.88                   | 20.78      | 20.80        | 21.63         |
|           |            | 50      | 0         | 20.58                   | 20.65      | 20.82        | 21.63         |
|           | 16QAM      | 1       | 0         | 21.02                   | 21.04      | 21.04        | 21.63         |
|           |            | 1       | 25        | 20.75                   | 20.82      | 20.98        | 21.63         |
|           |            | 1       | 49        | 20.87                   | 21.02      | 21.08        | 21.63         |
|           |            | 25      | 0         | 20.57                   | 20.72      | 20.51        | 21.63         |
|           |            | 25      | 13        | 20.63                   | 20.72      | 20.61        | 21.63         |
|           |            | 25      | 25        | 20.54                   | 20.81      | 20.74        | 21.63         |
|           |            | 50      | 0         | 20.55                   | 20.62      | 20.64        | 21.63         |
|           | 64QAM      | 1       | 0         | 20.88                   | 20.64      | 20.89        | 21.63         |
|           |            | 1       | 25        | 21.05                   | 20.60      | 20.96        | 21.63         |
|           |            | 1       | 49        | 20.89                   | 20.69      | 20.94        | 21.63         |
|           |            | 25      | 0         | 20.61                   | 20.60      | 20.57        | 20.63         |
|           |            | 25      | 13        | 20.60                   | 20.59      | 20.61        | 20.63         |
|           |            | 25      | 25        | 20.54                   | 20.60      | 20.55        | 20.63         |
|           |            | 50      | 0         | 20.55                   | 20.59      | 20.58        | 20.63         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 37825/2577.5            | 38000/2595 | 38175/2612.5 |               |
| 15MHz     | QPSK       | 1       | 0         | 20.79                   | 20.79      | 20.66        | 21.63         |
|           |            | 1       | 38        | 20.63                   | 20.78      | 20.87        | 21.63         |
|           |            | 1       | 74        | 20.73                   | 20.81      | 20.83        | 21.63         |
|           |            | 36      | 0         | 20.57                   | 20.58      | 20.65        | 21.63         |
|           |            | 36      | 18        | 20.61                   | 20.66      | 20.72        | 21.63         |
|           |            | 36      | 39        | 20.85                   | 20.75      | 20.76        | 21.63         |
|           |            | 75      | 0         | 20.56                   | 20.61      | 20.77        | 21.63         |
|           | 16QAM      | 1       | 0         | 20.97                   | 21.02      | 21.02        | 21.63         |
|           |            | 1       | 38        | 20.73                   | 20.79      | 20.96        | 21.63         |
|           |            | 1       | 74        | 20.84                   | 20.98      | 21.05        | 21.63         |
|           |            | 36      | 0         | 20.54                   | 20.70      | 20.48        | 21.63         |
|           |            | 36      | 18        | 20.60                   | 20.67      | 20.57        | 21.63         |
|           |            | 36      | 39        | 20.52                   | 20.77      | 20.71        | 21.63         |
|           |            | 75      | 0         | 20.52                   | 20.57      | 20.60        | 21.63         |
|           | 64QAM      | 1       | 0         | 20.83                   | 20.62      | 20.87        | 21.63         |
|           |            | 1       | 38        | 21.03                   | 20.57      | 20.94        | 21.63         |
|           |            | 1       | 74        | 20.86                   | 20.65      | 20.91        | 21.63         |
|           |            | 36      | 0         | 20.57                   | 20.60      | 20.54        | 20.63         |
|           |            | 36      | 18        | 20.61                   | 20.57      | 20.56        | 20.63         |
|           |            | 36      | 39        | 20.52                   | 20.56      | 20.58        | 20.63         |
|           |            | 75      | 0         | 20.52                   | 20.60      | 20.60        | 20.63         |

| Bandwidth    | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |            | Tune-up Limit |
|--------------|------------|---------|-----------|-------------------------|------------|------------|---------------|
|              |            |         |           | 37850/2580              | 38000/2595 | 38150/2610 |               |
| <b>20MHz</b> | QPSK       | 1       | 0         | 20.76                   | 20.75      | 20.63      | 21.63         |
|              |            | 1       | 50        | 20.62                   | 20.74      | 20.85      | 21.63         |
|              |            | 1       | 99        | 20.71                   | 20.80      | 20.80      | 21.63         |
|              |            | 50      | 0         | 20.54                   | 20.53      | 20.61      | 21.63         |
|              |            | 50      | 25        | 20.59                   | 20.62      | 20.69      | 21.63         |
|              |            | 50      | 50        | 20.82                   | 20.70      | 20.72      | 21.63         |
|              |            | 100     | 0         | 20.53                   | 20.56      | 20.73      | 21.63         |
|              | 16QAM      | 1       | 0         | 20.95                   | 20.98      | 20.97      | 21.63         |
|              |            | 1       | 50        | 20.69                   | 20.77      | 20.92      | 21.63         |
|              |            | 1       | 99        | 20.82                   | 20.95      | 21.03      | 21.63         |
|              |            | 50      | 0         | 20.51                   | 20.66      | 20.45      | 21.63         |
|              |            | 50      | 25        | 20.57                   | 20.65      | 20.54      | 21.63         |
|              |            | 50      | 50        | 20.49                   | 20.72      | 20.67      | 21.63         |
|              |            | 100     | 0         | 20.50                   | 20.53      | 20.57      | 21.63         |
|              | 64QAM      | 1       | 0         | 20.81                   | 20.58      | 20.82      | 21.63         |
|              |            | 1       | 50        | 20.99                   | 20.55      | 20.90      | 21.63         |
|              |            | 1       | 99        | 20.84                   | 20.62      | 20.89      | 21.63         |
|              |            | 50      | 0         | 20.52                   | 20.60      | 20.57      | 20.63         |
|              |            | 50      | 25        | 20.58                   | 20.55      | 20.54      | 20.63         |
|              |            | 50      | 50        | 20.49                   | 20.57      | 20.55      | 20.63         |
|              |            | 100     | 0         | 20.50                   | 20.56      | 20.57      | 20.63         |

| LTE TDD Band 38<br>(Receiver off+SAR sensor on Level D1&D2) |            |         |           | Conducted Power(dBm)    |            |              | Tune-up<br>Limit |
|-------------------------------------------------------------|------------|---------|-----------|-------------------------|------------|--------------|------------------|
| Bandwidth                                                   | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              |                  |
|                                                             |            |         |           | 37775/2572.5            | 38000/2595 | 38225/2617.5 |                  |
| 5MHz                                                        | QPSK       | 1       | 0         | 22.25                   | 22.27      | 22.29        | 22.63            |
|                                                             |            | 1       | 13        | 22.32                   | 22.21      | 22.37        | 22.63            |
|                                                             |            | 1       | 24        | 22.54                   | 21.71      | 21.73        | 22.63            |
|                                                             |            | 12      | 0         | 21.13                   | 21.11      | 21.24        | 22.63            |
|                                                             |            | 12      | 6         | 21.12                   | 21.15      | 21.17        | 22.63            |
|                                                             |            | 12      | 13        | 21.39                   | 21.24      | 21.25        | 22.63            |
|                                                             |            | 25      | 0         | 21.13                   | 21.21      | 21.22        | 22.63            |
|                                                             | 16QAM      | 1       | 0         | 21.34                   | 21.68      | 21.64        | 22.63            |
|                                                             |            | 1       | 13        | 21.28                   | 21.54      | 21.40        | 22.63            |
|                                                             |            | 1       | 24        | 21.63                   | 21.65      | 21.53        | 22.63            |
|                                                             |            | 12      | 0         | 20.10                   | 20.06      | 19.91        | 21.63            |
|                                                             |            | 12      | 6         | 19.99                   | 20.00      | 20.13        | 21.63            |
|                                                             |            | 12      | 13        | 20.01                   | 20.11      | 20.19        | 21.63            |
|                                                             |            | 25      | 0         | 20.05                   | 20.09      | 20.18        | 21.63            |
|                                                             | 64QAM      | 1       | 0         | 20.95                   | 20.91      | 20.94        | 21.63            |



|           |            | 1       | 13        | 20.82                   | 20.79      | 21.08        | 21.63         |
|-----------|------------|---------|-----------|-------------------------|------------|--------------|---------------|
|           |            | 1       | 24        | 21.14                   | 21.01      | 21.10        | 21.63         |
|           |            | 12      | 0         | 20.16                   | 19.92      | 19.96        | 20.63         |
|           |            | 12      | 6         | 20.04                   | 19.98      | 20.18        | 20.63         |
|           |            | 12      | 13        | 20.38                   | 20.10      | 20.24        | 20.63         |
|           |            | 25      | 0         | 20.08                   | 20.07      | 20.15        | 20.63         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 37800/2575              | 38000/2595 | 38200/2615   |               |
| 10MHz     | QPSK       | 1       | 0         | 22.26                   | 22.26      | 22.31        | 22.63         |
|           |            | 1       | 25        | 22.33                   | 22.25      | 22.39        | 22.63         |
|           |            | 1       | 49        | 22.55                   | 21.73      | 21.75        | 22.63         |
|           |            | 25      | 0         | 21.14                   | 21.15      | 21.26        | 22.63         |
|           |            | 25      | 13        | 21.14                   | 21.18      | 21.20        | 22.63         |
|           |            | 25      | 25        | 21.39                   | 21.24      | 21.29        | 22.63         |
|           |            | 50      | 0         | 21.13                   | 21.22      | 21.23        | 22.63         |
|           | 16QAM      | 1       | 0         | 21.33                   | 21.66      | 21.64        | 22.63         |
|           |            | 1       | 25        | 21.30                   | 21.57      | 21.38        | 22.63         |
|           |            | 1       | 49        | 21.64                   | 21.63      | 21.55        | 22.63         |
|           |            | 25      | 0         | 20.08                   | 20.10      | 19.92        | 21.63         |
|           |            | 25      | 13        | 19.98                   | 19.99      | 20.14        | 21.63         |
|           |            | 25      | 25        | 20.03                   | 20.15      | 20.18        | 21.63         |
|           |            | 50      | 0         | 20.04                   | 20.11      | 20.18        | 21.63         |
|           | 64QAM      | 1       | 0         | 20.95                   | 20.90      | 20.95        | 21.63         |
|           |            | 1       | 25        | 20.84                   | 20.81      | 21.08        | 21.63         |
|           |            | 1       | 49        | 21.14                   | 20.98      | 21.11        | 21.63         |
|           |            | 25      | 0         | 20.18                   | 19.96      | 19.95        | 20.63         |
|           |            | 25      | 13        | 20.02                   | 19.99      | 20.17        | 20.63         |
|           |            | 25      | 25        | 20.39                   | 20.11      | 20.27        | 20.63         |
|           |            | 50      | 0         | 20.10                   | 20.10      | 20.16        | 20.63         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 37825/2577.5            | 38000/2595 | 38175/2612.5 |               |
| 15MHz     | QPSK       | 1       | 0         | 22.26                   | 22.24      | 22.30        | 22.63         |
|           |            | 1       | 38        | 22.33                   | 22.25      | 22.38        | 22.63         |
|           |            | 1       | 74        | 22.53                   | 21.70      | 21.72        | 22.63         |
|           |            | 36      | 0         | 21.14                   | 21.12      | 21.25        | 22.63         |
|           |            | 36      | 18        | 21.12                   | 21.15      | 21.17        | 22.63         |
|           |            | 36      | 39        | 21.38                   | 21.25      | 21.26        | 22.63         |
|           |            | 75      | 0         | 21.16                   | 21.19      | 21.21        | 22.63         |
|           | 16QAM      | 1       | 0         | 21.31                   | 21.69      | 21.64        | 22.63         |
|           |            | 1       | 38        | 21.29                   | 21.55      | 21.41        | 22.63         |
|           |            | 1       | 74        | 21.64                   | 21.63      | 21.53        | 22.63         |
|           |            | 36      | 0         | 20.10                   | 20.09      | 19.92        | 21.63         |
|           |            | 36      | 18        | 19.98                   | 19.99      | 20.12        | 21.63         |

|           |            | 36      | 39        | 20.02                   | 20.12      | 20.20      | 21.63         |
|-----------|------------|---------|-----------|-------------------------|------------|------------|---------------|
|           |            | 75      | 0         | 20.05                   | 20.09      | 20.18      | 21.63         |
|           | 64QAM      | 1       | 0         | 20.92                   | 20.92      | 20.94      | 21.63         |
|           |            | 1       | 38        | 20.83                   | 20.80      | 21.09      | 21.63         |
|           |            | 1       | 74        | 21.14                   | 20.99      | 21.10      | 21.63         |
|           |            | 36      | 0         | 20.16                   | 19.95      | 19.97      | 20.63         |
|           |            | 36      | 18        | 20.03                   | 19.97      | 20.17      | 20.63         |
|           |            | 36      | 39        | 20.39                   | 20.11      | 20.25      | 20.63         |
|           |            | 75      | 0         | 20.08                   | 20.07      | 20.15      | 20.63         |
|           |            |         |           |                         |            |            |               |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |            | Tune-up Limit |
|           |            |         |           | 37850/2580              | 38000/2595 | 38150/2610 |               |
| 20MHz     | QPSK       | 1       | 0         | 22.23                   | 22.20      | 22.27      | 22.63         |
|           |            | 1       | 50        | 22.32                   | 22.21      | 22.36      | 22.63         |
|           |            | 1       | 99        | 22.51                   | 21.69      | 21.69      | 22.63         |
|           |            | 50      | 0         | 21.11                   | 21.07      | 21.21      | 22.63         |
|           |            | 50      | 25        | 21.10                   | 21.11      | 21.14      | 22.63         |
|           |            | 50      | 50        | 21.35                   | 21.20      | 21.22      | 22.63         |
|           |            | 100     | 0         | 21.13                   | 21.14      | 21.17      | 22.63         |
|           | 16QAM      | 1       | 0         | 21.29                   | 21.65      | 21.59      | 22.63         |
|           |            | 1       | 50        | 21.25                   | 21.53      | 21.37      | 22.63         |
|           |            | 1       | 99        | 21.61                   | 21.60      | 21.51      | 22.63         |
|           |            | 50      | 0         | 20.07                   | 20.05      | 19.89      | 21.63         |
|           |            | 50      | 25        | 19.95                   | 19.97      | 20.09      | 21.63         |
|           |            | 50      | 50        | 19.99                   | 20.07      | 20.16      | 21.63         |
|           |            | 100     | 0         | 20.03                   | 20.05      | 20.15      | 21.63         |
|           | 64QAM      | 1       | 0         | 20.90                   | 20.88      | 20.89      | 21.63         |
|           |            | 1       | 50        | 20.79                   | 20.78      | 21.05      | 21.63         |
|           |            | 1       | 99        | 21.12                   | 20.96      | 21.08      | 21.63         |
|           |            | 50      | 0         | 20.13                   | 19.91      | 19.94      | 20.63         |
|           |            | 50      | 25        | 20.00                   | 19.95      | 20.14      | 20.63         |
|           |            | 50      | 50        | 20.36                   | 20.06      | 20.21      | 20.63         |
|           |            | 100     | 0         | 20.06                   | 20.03      | 20.12      | 20.63         |

| LTE TDD Band 38<br>(Hotspot on+Receiver off+SAR sensor on Level D1&D2) |            |         |           | Conducted Power(dBm)    |            |              | Tune-up<br>Limit |
|------------------------------------------------------------------------|------------|---------|-----------|-------------------------|------------|--------------|------------------|
| Bandwidth                                                              | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              |                  |
|                                                                        |            |         |           | 37775/2572.5            | 38000/2595 | 38225/2617.5 |                  |
| 5MHz                                                                   | QPSK       | 1       | 0         | 19.97                   | 20.06      | 20.07        | 20.63            |
|                                                                        |            | 1       | 13        | 19.90                   | 19.94      | 19.96        | 20.63            |
|                                                                        |            | 1       | 24        | 20.13                   | 20.02      | 20.17        | 20.63            |
|                                                                        |            | 12      | 0         | 20.02                   | 19.95      | 19.76        | 20.63            |
|                                                                        |            | 12      | 6         | 19.88                   | 19.97      | 19.99        | 20.63            |
|                                                                        |            | 12      | 13        | 20.05                   | 20.07      | 19.95        | 20.63            |

|           | 16QAM      | 25      | 0         | 19.93                   | 20.03      | 19.92        | 20.63         |
|-----------|------------|---------|-----------|-------------------------|------------|--------------|---------------|
|           |            | 1       | 0         | 20.46                   | 20.36      | 20.33        | 20.63         |
|           |            | 1       | 13        | 20.20                   | 20.33      | 20.22        | 20.63         |
|           |            | 1       | 24        | 20.38                   | 20.45      | 20.32        | 20.63         |
|           |            | 12      | 0         | 19.81                   | 19.82      | 19.69        | 20.63         |
|           |            | 12      | 6         | 19.80                   | 19.75      | 19.90        | 20.63         |
|           |            | 12      | 13        | 19.82                   | 19.29      | 19.96        | 20.63         |
|           |            | 25      | 0         | 19.78                   | 19.68      | 19.88        | 20.63         |
|           | 64QAM      | 1       | 0         | 19.86                   | 19.77      | 19.73        | 20.63         |
|           |            | 1       | 13        | 19.82                   | 19.85      | 19.83        | 20.63         |
|           |            | 1       | 24        | 19.88                   | 19.95      | 19.89        | 20.63         |
|           |            | 12      | 0         | 19.76                   | 19.66      | 19.60        | 20.63         |
|           |            | 12      | 6         | 19.75                   | 19.72      | 19.85        | 20.63         |
|           |            | 12      | 13        | 19.77                   | 19.82      | 19.91        | 20.63         |
|           |            | 25      | 0         | 19.82                   | 19.83      | 19.92        | 20.63         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 37800/2575              | 38000/2595 | 38200/2615   |               |
| 10MHz     | QPSK       | 1       | 0         | 19.98                   | 20.05      | 20.09        | 20.63         |
|           |            | 1       | 25        | 19.91                   | 19.98      | 19.98        | 20.63         |
|           |            | 1       | 49        | 20.14                   | 20.04      | 20.19        | 20.63         |
|           |            | 25      | 0         | 20.03                   | 19.99      | 19.78        | 20.63         |
|           |            | 25      | 13        | 19.90                   | 20.00      | 20.02        | 20.63         |
|           |            | 25      | 25        | 20.05                   | 20.07      | 19.99        | 20.63         |
|           |            | 50      | 0         | 19.93                   | 20.04      | 19.93        | 20.63         |
|           | 16QAM      | 1       | 0         | 20.45                   | 20.34      | 20.33        | 20.63         |
|           |            | 1       | 25        | 20.22                   | 20.36      | 20.20        | 20.63         |
|           |            | 1       | 49        | 20.39                   | 20.43      | 20.34        | 20.63         |
|           |            | 25      | 0         | 19.79                   | 19.86      | 19.70        | 20.63         |
|           |            | 25      | 13        | 19.79                   | 19.74      | 19.91        | 20.63         |
|           |            | 25      | 25        | 19.84                   | 19.33      | 19.95        | 20.63         |
|           |            | 50      | 0         | 19.77                   | 19.70      | 19.88        | 20.63         |
|           | 64QAM      | 1       | 0         | 19.86                   | 19.76      | 19.74        | 20.63         |
|           |            | 1       | 25        | 19.84                   | 19.87      | 19.83        | 20.63         |
|           |            | 1       | 49        | 19.88                   | 19.92      | 19.90        | 20.63         |
|           |            | 25      | 0         | 19.78                   | 19.70      | 19.59        | 20.63         |
|           |            | 25      | 13        | 19.73                   | 19.73      | 19.84        | 20.63         |
|           |            | 25      | 25        | 19.78                   | 19.83      | 19.94        | 20.63         |
|           |            | 50      | 0         | 19.84                   | 19.86      | 19.93        | 20.63         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 37825/2577.5            | 38000/2595 | 38175/2612.5 |               |
| 15MHz     | QPSK       | 1       | 0         | 19.98                   | 20.03      | 20.08        | 20.63         |
|           |            | 1       | 38        | 19.91                   | 19.98      | 19.97        | 20.63         |
|           |            | 1       | 74        | 20.12                   | 20.01      | 20.16        | 20.63         |

|           |            | 36      | 0         | 20.03                   | 19.96      | 19.77      | 20.63         |
|-----------|------------|---------|-----------|-------------------------|------------|------------|---------------|
|           |            | 36      | 18        | 19.88                   | 19.97      | 19.99      | 20.63         |
|           |            | 36      | 39        | 20.04                   | 20.08      | 19.96      | 20.63         |
|           |            | 75      | 0         | 19.96                   | 20.01      | 19.91      | 20.63         |
|           | 16QAM      | 1       | 0         | 20.43                   | 20.37      | 20.33      | 20.63         |
|           |            | 1       | 38        | 20.21                   | 20.34      | 20.23      | 20.63         |
|           |            | 1       | 74        | 20.38                   | 20.43      | 20.32      | 20.63         |
|           |            | 36      | 0         | 19.81                   | 19.85      | 19.70      | 20.63         |
|           |            | 36      | 18        | 19.79                   | 19.74      | 19.89      | 20.63         |
|           |            | 36      | 39        | 19.83                   | 19.30      | 19.97      | 20.63         |
|           |            | 75      | 0         | 19.78                   | 19.68      | 19.88      | 20.63         |
|           | 64QAM      | 1       | 0         | 19.83                   | 19.78      | 19.73      | 20.63         |
|           |            | 1       | 38        | 19.83                   | 19.86      | 19.84      | 20.63         |
|           |            | 1       | 74        | 19.88                   | 19.93      | 19.89      | 20.63         |
|           |            | 36      | 0         | 19.76                   | 19.69      | 19.61      | 20.63         |
|           |            | 36      | 18        | 19.74                   | 19.71      | 19.84      | 20.63         |
|           |            | 36      | 39        | 19.78                   | 19.83      | 19.92      | 20.63         |
|           |            | 75      | 0         | 19.82                   | 19.83      | 19.92      | 20.63         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |            | Tune-up Limit |
|           |            |         |           | 37850/2580              | 38000/2595 | 38150/2610 |               |
| 20MHz     | QPSK       | 1       | 0         | 19.95                   | 19.99      | 20.05      | 20.63         |
|           |            | 1       | 50        | 19.90                   | 19.94      | 19.95      | 20.63         |
|           |            | 1       | 99        | 20.10                   | 20.00      | 20.13      | 20.63         |
|           |            | 50      | 0         | 20.00                   | 19.91      | 19.73      | 20.63         |
|           |            | 50      | 25        | 19.86                   | 19.93      | 19.96      | 20.63         |
|           |            | 50      | 50        | 20.01                   | 20.03      | 19.92      | 20.63         |
|           |            | 100     | 0         | 19.93                   | 19.96      | 19.87      | 20.63         |
|           | 16QAM      | 1       | 0         | 20.41                   | 20.33      | 20.28      | 20.63         |
|           |            | 1       | 50        | 20.17                   | 20.32      | 20.19      | 20.63         |
|           |            | 1       | 99        | 20.36                   | 20.40      | 20.30      | 20.63         |
|           |            | 50      | 0         | 19.78                   | 19.81      | 19.67      | 20.63         |
|           |            | 50      | 25        | 19.76                   | 19.72      | 19.86      | 20.63         |
|           |            | 50      | 50        | 19.80                   | 19.25      | 19.93      | 20.63         |
|           |            | 100     | 0         | 19.76                   | 19.64      | 19.85      | 20.63         |
|           | 64QAM      | 1       | 0         | 19.81                   | 19.74      | 19.68      | 20.63         |
|           |            | 1       | 50        | 19.79                   | 19.84      | 19.80      | 20.63         |
|           |            | 1       | 99        | 19.86                   | 19.90      | 19.87      | 20.63         |
|           |            | 50      | 0         | 19.73                   | 19.65      | 19.58      | 20.63         |
|           |            | 50      | 25        | 19.71                   | 19.69      | 19.81      | 20.63         |
|           |            | 50      | 50        | 19.75                   | 19.78      | 19.88      | 20.63         |
|           |            | 100     | 0         | 19.80                   | 19.79      | 19.89      | 20.63         |

| LTE TDD Band 41<br>(Receiver on)<br>(Receiver off+SAR sensor on Level D1&D2)<br>(Receiver off+SAR sensor on Level D3)<br>(Receiver off+SAR sensor on Level D7)<br>(Sensor off+Hotspot off) |            |         |           | Conducted Power(dBm)    |            |              | Tune-up<br>Limit |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------|-----------|-------------------------|------------|--------------|------------------|
| Bandwidth                                                                                                                                                                                  | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              |                  |
|                                                                                                                                                                                            |            |         |           | 40148/2545.8            | 40620/2593 | 41093/2640.3 |                  |
| 5MHz                                                                                                                                                                                       | QPSK       | 1       | 0         | 23.02                   | 23.24      | 23.09        | 23.63            |
|                                                                                                                                                                                            |            | 1       | 13        | 23.16                   | 23.07      | 23.14        | 23.63            |
|                                                                                                                                                                                            |            | 1       | 24        | 23.04                   | 23.16      | 23.10        | 23.63            |
|                                                                                                                                                                                            |            | 12      | 0         | 22.01                   | 21.88      | 21.97        | 22.63            |
|                                                                                                                                                                                            |            | 12      | 6         | 21.96                   | 21.92      | 22.06        | 22.63            |
|                                                                                                                                                                                            |            | 12      | 13        | 22.10                   | 21.98      | 22.07        | 22.63            |
|                                                                                                                                                                                            |            | 25      | 0         | 21.98                   | 21.98      | 22.05        | 22.63            |
|                                                                                                                                                                                            | 16QAM      | 1       | 0         | 22.33                   | 22.22      | 22.46        | 22.63            |
|                                                                                                                                                                                            |            | 1       | 13        | 22.31                   | 22.25      | 22.41        | 22.63            |
|                                                                                                                                                                                            |            | 1       | 24        | 22.39                   | 22.36      | 22.41        | 22.63            |
|                                                                                                                                                                                            |            | 12      | 0         | 21.05                   | 20.89      | 20.99        | 21.63            |
|                                                                                                                                                                                            |            | 12      | 6         | 21.01                   | 20.82      | 20.96        | 21.63            |
|                                                                                                                                                                                            |            | 12      | 13        | 20.97                   | 20.89      | 20.98        | 21.63            |
|                                                                                                                                                                                            |            | 25      | 0         | 20.96                   | 20.81      | 20.99        | 21.63            |
|                                                                                                                                                                                            | 64QAM      | 1       | 0         | 20.79                   | 20.98      | 20.89        | 21.63            |
|                                                                                                                                                                                            |            | 1       | 13        | 20.88                   | 20.79      | 20.79        | 21.63            |
|                                                                                                                                                                                            |            | 1       | 24        | 20.97                   | 21.00      | 21.04        | 21.63            |
|                                                                                                                                                                                            |            | 12      | 0         | 20.32                   | 20.26      | 20.25        | 20.63            |
|                                                                                                                                                                                            |            | 12      | 6         | 20.24                   | 20.30      | 20.37        | 20.63            |
|                                                                                                                                                                                            |            | 12      | 13        | 20.30                   | 20.30      | 20.23        | 20.63            |
|                                                                                                                                                                                            |            | 25      | 0         | 20.30                   | 20.40      | 20.42        | 20.63            |
| Bandwidth                                                                                                                                                                                  | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up<br>Limit |
|                                                                                                                                                                                            |            |         |           | 40160/2547              | 40620/2593 | 41080/2639   |                  |
| 10MHz                                                                                                                                                                                      | QPSK       | 1       | 0         | 23.05                   | 23.26      | 23.13        | 23.63            |
|                                                                                                                                                                                            |            | 1       | 25        | 23.18                   | 23.11      | 23.17        | 23.63            |
|                                                                                                                                                                                            |            | 1       | 49        | 23.07                   | 23.21      | 23.14        | 23.63            |
|                                                                                                                                                                                            |            | 25      | 0         | 22.04                   | 21.93      | 22.01        | 22.63            |
|                                                                                                                                                                                            |            | 25      | 13        | 21.98                   | 21.96      | 22.11        | 22.63            |
|                                                                                                                                                                                            |            | 25      | 25        | 22.12                   | 22.00      | 22.11        | 22.63            |
|                                                                                                                                                                                            |            | 50      | 0         | 21.98                   | 21.99      | 22.07        | 22.63            |
|                                                                                                                                                                                            | 16QAM      | 1       | 0         | 22.36                   | 22.26      | 22.49        | 22.63            |
|                                                                                                                                                                                            |            | 1       | 25        | 22.34                   | 22.27      | 22.44        | 22.63            |
|                                                                                                                                                                                            |            | 1       | 49        | 22.42                   | 22.38      | 22.45        | 22.63            |

|           |            | 25      | 0         | 21.07                   | 20.93      | 21.02        | 21.63         |
|-----------|------------|---------|-----------|-------------------------|------------|--------------|---------------|
|           |            | 25      | 13        | 21.04                   | 20.87      | 21.00        | 21.63         |
|           |            | 25      | 25        | 21.00                   | 20.94      | 21.02        | 21.63         |
|           |            | 50      | 0         | 20.98                   | 20.85      | 21.04        | 21.63         |
|           | 64QAM      | 1       | 0         | 20.82                   | 20.98      | 20.92        | 21.63         |
|           |            | 1       | 25        | 20.91                   | 20.77      | 20.82        | 21.63         |
|           |            | 1       | 49        | 20.96                   | 21.02      | 21.08        | 21.63         |
|           |            | 25      | 0         | 20.34                   | 20.30      | 20.24        | 20.63         |
|           |            | 25      | 13        | 20.27                   | 20.35      | 20.41        | 20.63         |
|           |            | 25      | 25        | 20.33                   | 20.35      | 20.27        | 20.63         |
|           |            | 50      | 0         | 20.32                   | 20.44      | 20.47        | 20.63         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 40173/2548.3            | 40620/2593 | 41068/2637.8 |               |
| 15MHz     | QPSK       | 1       | 0         | 23.03                   | 23.21      | 23.10        | 23.63         |
|           |            | 1       | 38        | 23.17                   | 23.11      | 23.15        | 23.63         |
|           |            | 1       | 74        | 23.03                   | 23.15      | 23.09        | 23.63         |
|           |            | 36      | 0         | 22.02                   | 21.89      | 21.98        | 22.63         |
|           |            | 36      | 18        | 21.96                   | 21.92      | 22.06        | 22.63         |
|           |            | 36      | 39        | 22.09                   | 21.99      | 22.08        | 22.63         |
|           |            | 75      | 0         | 22.00                   | 21.96      | 22.04        | 22.63         |
|           | 16QAM      | 1       | 0         | 22.30                   | 22.23      | 22.46        | 22.63         |
|           |            | 1       | 38        | 22.32                   | 22.26      | 22.42        | 22.63         |
|           |            | 1       | 74        | 22.39                   | 22.34      | 22.41        | 22.63         |
|           |            | 36      | 0         | 21.05                   | 20.92      | 21.00        | 21.63         |
|           |            | 36      | 18        | 21.00                   | 20.81      | 20.95        | 21.63         |
|           |            | 36      | 39        | 20.98                   | 20.90      | 20.99        | 21.63         |
|           |            | 75      | 0         | 20.96                   | 20.81      | 20.99        | 21.63         |
|           | 64QAM      | 1       | 0         | 20.76                   | 20.95      | 20.89        | 21.63         |
|           |            | 1       | 38        | 20.89                   | 20.76      | 20.80        | 21.63         |
|           |            | 1       | 74        | 20.97                   | 21.01      | 21.08        | 21.63         |
|           |            | 36      | 0         | 20.34                   | 20.33      | 20.26        | 20.63         |
|           |            | 36      | 18        | 20.24                   | 20.31      | 20.39        | 20.63         |
|           |            | 36      | 39        | 20.31                   | 20.31      | 20.24        | 20.63         |
|           |            | 75      | 0         | 20.30                   | 20.40      | 20.42        | 20.63         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 40185/2549.5            | 40620/2593 | 41055/2636.5 |               |
| 20MHz     | QPSK       | 1       | 0         | 23.00                   | 23.17      | 23.07        | 23.63         |
|           |            | 1       | 50        | 23.16                   | 23.07      | 23.13        | 23.63         |
|           |            | 1       | 99        | 23.01                   | 23.14      | 23.06        | 23.63         |
|           |            | 50      | 0         | 21.99                   | 21.84      | 21.94        | 22.63         |
|           |            | 50      | 25        | 21.94                   | 21.88      | 22.03        | 22.63         |

|  |       |     |    |       |       |       |       |
|--|-------|-----|----|-------|-------|-------|-------|
|  |       | 50  | 50 | 22.06 | 21.94 | 22.04 | 22.63 |
|  |       | 100 | 0  | 21.97 | 21.91 | 22.00 | 22.63 |
|  | 16QAM | 1   | 0  | 22.43 | 22.19 | 22.41 | 22.63 |
|  |       | 1   | 50 | 22.28 | 22.24 | 22.38 | 22.63 |
|  |       | 1   | 99 | 22.37 | 22.31 | 22.39 | 22.63 |
|  |       | 50  | 0  | 21.02 | 20.88 | 20.97 | 21.63 |
|  |       | 50  | 25 | 20.97 | 20.79 | 20.92 | 21.63 |
|  |       | 50  | 50 | 20.95 | 20.85 | 20.95 | 21.63 |
|  |       | 100 | 0  | 20.94 | 20.77 | 20.96 | 21.63 |
|  | 64QAM | 1   | 0  | 20.74 | 20.91 | 20.84 | 21.63 |
|  |       | 1   | 50 | 20.85 | 20.74 | 20.76 | 21.63 |
|  |       | 1   | 99 | 20.91 | 20.95 | 21.02 | 21.63 |
|  |       | 50  | 0  | 20.29 | 20.25 | 20.19 | 20.63 |
|  |       | 50  | 25 | 20.20 | 20.27 | 20.33 | 20.63 |
|  |       | 50  | 50 | 20.28 | 20.26 | 20.20 | 20.63 |
|  |       | 100 | 0  | 20.28 | 20.36 | 20.39 | 20.63 |

| LTE TDD Band 41<br>(Hotspot on+Receiver on)<br>(Hotspot on+Receiver off+SAR sensor on Level D1&D2)<br>(Hotspot on+Receiver off+SAR sensor on Level D3)<br>(Hotspot on+Receiver off+SAR sensor on Level D7)<br>(sensor off+hotspot on) |            |         |           | Conducted Power(dBm)    |            |              | Tune-up Limit |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------|-----------|-------------------------|------------|--------------|---------------|
| Bandwidth                                                                                                                                                                                                                             | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              |               |
|                                                                                                                                                                                                                                       |            |         |           | 40148/2545.8            | 40620/2593 | 41093/2640.3 |               |
| 5MHz                                                                                                                                                                                                                                  | QPSK       | 1       | 0         | 21.25                   | 21.25      | 21.29        | 22.13         |
|                                                                                                                                                                                                                                       |            | 1       | 13        | 21.14                   | 21.21      | 21.21        | 22.13         |
|                                                                                                                                                                                                                                       |            | 1       | 24        | 21.25                   | 21.26      | 21.32        | 22.13         |
|                                                                                                                                                                                                                                       |            | 12      | 0         | 21.28                   | 21.27      | 21.25        | 22.13         |
|                                                                                                                                                                                                                                       |            | 12      | 6         | 21.15                   | 21.24      | 21.15        | 22.13         |
|                                                                                                                                                                                                                                       |            | 12      | 13        | 21.31                   | 21.29      | 21.26        | 22.13         |
|                                                                                                                                                                                                                                       |            | 25      | 0         | 21.16                   | 21.31      | 21.27        | 22.13         |
|                                                                                                                                                                                                                                       | 16QAM      | 1       | 0         | 21.38                   | 21.47      | 21.48        | 22.13         |
|                                                                                                                                                                                                                                       |            | 1       | 13        | 21.38                   | 21.51      | 21.49        | 22.13         |
|                                                                                                                                                                                                                                       |            | 1       | 24        | 21.40                   | 21.44      | 21.47        | 22.13         |
|                                                                                                                                                                                                                                       |            | 12      | 0         | 20.61                   | 20.63      | 20.65        | 21.63         |
|                                                                                                                                                                                                                                       |            | 12      | 6         | 20.60                   | 20.62      | 20.58        | 21.63         |
|                                                                                                                                                                                                                                       |            | 12      | 13        | 20.72                   | 20.79      | 20.68        | 21.63         |
|                                                                                                                                                                                                                                       |            | 25      | 0         | 20.64                   | 20.68      | 20.69        | 21.63         |
|                                                                                                                                                                                                                                       | 64QAM      | 1       | 0         | 21.42                   | 21.33      | 21.45        | 21.63         |
|                                                                                                                                                                                                                                       |            | 1       | 13        | 21.38                   | 21.36      | 21.35        | 21.63         |
|                                                                                                                                                                                                                                       |            | 1       | 24        | 21.34                   | 21.41      | 21.35        | 21.63         |

|           |            | 12      | 0         | 20.53                   | 20.53      | 20.52        | 20.63         |
|-----------|------------|---------|-----------|-------------------------|------------|--------------|---------------|
|           |            | 12      | 6         | 20.51                   | 20.52      | 20.59        | 20.63         |
|           |            | 12      | 13        | 20.51                   | 20.55      | 20.54        | 20.63         |
|           |            | 25      | 0         | 20.54                   | 20.54      | 20.52        | 20.63         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 40160/2547              | 40620/2593 | 41080/2639   |               |
| 10MHz     | QPSK       | 1       | 0         | 21.27                   | 21.26      | 21.32        | 22.13         |
|           |            | 1       | 25        | 21.17                   | 21.26      | 21.25        | 22.13         |
|           |            | 1       | 49        | 21.27                   | 21.30      | 21.35        | 22.13         |
|           |            | 25      | 0         | 21.31                   | 21.32      | 21.29        | 22.13         |
|           |            | 25      | 13        | 21.18                   | 21.29      | 21.19        | 22.13         |
|           |            | 25      | 25        | 21.33                   | 21.33      | 21.31        | 22.13         |
|           |            | 50      | 0         | 21.24                   | 21.33      | 21.31        | 22.13         |
|           | 16QAM      | 1       | 0         | 21.40                   | 21.50      | 21.50        | 22.13         |
|           |            | 1       | 25        | 21.41                   | 21.55      | 21.52        | 22.13         |
|           |            | 1       | 49        | 21.43                   | 21.46      | 21.50        | 22.13         |
|           |            | 25      | 0         | 20.64                   | 20.68      | 20.69        | 21.63         |
|           |            | 25      | 13        | 20.62                   | 20.66      | 20.61        | 21.63         |
|           |            | 25      | 25        | 20.75                   | 20.84      | 20.72        | 21.63         |
|           |            | 50      | 0         | 20.67                   | 20.73      | 20.73        | 21.63         |
|           | 64QAM      | 1       | 0         | 21.44                   | 21.36      | 21.47        | 21.63         |
|           |            | 1       | 25        | 21.41                   | 21.40      | 21.38        | 21.63         |
|           |            | 1       | 49        | 21.37                   | 21.43      | 21.38        | 21.63         |
|           |            | 25      | 0         | 20.56                   | 20.58      | 20.56        | 20.63         |
|           |            | 25      | 13        | 20.53                   | 20.56      | 20.52        | 20.63         |
|           |            | 25      | 25        | 20.54                   | 20.60      | 20.58        | 20.63         |
|           |            | 50      | 0         | 20.57                   | 20.59      | 20.56        | 20.63         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 40173/2548.3            | 40620/2593 | 41068/2637.8 |               |
| 15MHz     | QPSK       | 1       | 0         | 21.26                   | 21.22      | 21.30        | 22.13         |
|           |            | 1       | 38        | 21.15                   | 21.25      | 21.22        | 22.13         |
|           |            | 1       | 74        | 21.24                   | 21.25      | 21.31        | 22.13         |
|           |            | 36      | 0         | 21.29                   | 21.28      | 21.26        | 22.13         |
|           |            | 36      | 18        | 21.15                   | 21.24      | 21.15        | 22.13         |
|           |            | 36      | 39        | 21.30                   | 21.30      | 21.27        | 22.13         |
|           |            | 75      | 0         | 21.22                   | 21.29      | 21.26        | 22.13         |
|           | 16QAM      | 1       | 0         | 21.35                   | 21.48      | 21.48        | 22.13         |
|           |            | 1       | 38        | 21.39                   | 21.52      | 21.50        | 22.13         |
|           |            | 1       | 74        | 21.40                   | 21.42      | 21.47        | 22.13         |
|           |            | 36      | 0         | 20.61                   | 20.66      | 20.66        | 21.63         |
|           |            | 36      | 18        | 20.59                   | 20.61      | 20.57        | 21.63         |



|           |            | 36      | 39        | 20.73                   | 20.80      | 20.69        | 21.63         |
|-----------|------------|---------|-----------|-------------------------|------------|--------------|---------------|
|           |            | 75      | 0         | 20.64                   | 20.68      | 20.69        | 21.63         |
|           | 64QAM      | 1       | 0         | 21.39                   | 21.34      | 21.45        | 21.63         |
|           |            | 1       | 38        | 21.39                   | 21.37      | 21.36        | 21.63         |
|           |            | 1       | 74        | 21.34                   | 21.39      | 21.35        | 21.63         |
|           |            | 36      | 0         | 20.53                   | 20.56      | 20.53        | 20.63         |
|           |            | 36      | 18        | 20.50                   | 20.51      | 20.58        | 20.63         |
|           |            | 36      | 39        | 20.52                   | 20.56      | 20.55        | 20.63         |
|           |            | 75      | 0         | 20.54                   | 20.54      | 20.52        | 20.63         |
|           |            |         |           |                         |            |              |               |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 40185/2549.5            | 40620/2593 | 41055/2636.5 |               |
| 20MHz     | QPSK       | 1       | 0         | 21.23                   | 21.18      | 21.27        | 22.13         |
|           |            | 1       | 50        | 21.14                   | 21.21      | 21.20        | 22.13         |
|           |            | 1       | 99        | 21.22                   | 21.24      | 21.28        | 22.13         |
|           |            | 50      | 0         | 21.26                   | 21.23      | 21.22        | 22.13         |
|           |            | 50      | 25        | 21.13                   | 21.20      | 21.12        | 22.13         |
|           |            | 50      | 50        | 21.27                   | 21.25      | 21.23        | 22.13         |
|           |            | 100     | 0         | 21.19                   | 21.24      | 21.22        | 22.13         |
|           |            |         |           |                         |            |              |               |
|           | 16QAM      | 1       | 0         | 21.33                   | 21.44      | 21.43        | 22.13         |
|           |            | 1       | 50        | 21.35                   | 21.50      | 21.46        | 22.13         |
|           |            | 1       | 99        | 21.38                   | 21.39      | 21.45        | 22.13         |
|           |            | 50      | 0         | 20.58                   | 20.62      | 20.63        | 21.63         |
|           |            | 50      | 25        | 20.56                   | 20.59      | 20.54        | 21.63         |
|           |            | 50      | 50        | 20.70                   | 20.75      | 20.65        | 21.63         |
|           |            | 100     | 0         | 20.62                   | 20.64      | 20.66        | 21.63         |
|           |            |         |           |                         |            |              |               |
|           | 64QAM      | 1       | 0         | 21.37                   | 21.30      | 21.40        | 21.63         |
|           |            | 1       | 50        | 21.35                   | 21.35      | 21.32        | 21.63         |
|           |            | 1       | 99        | 21.32                   | 21.36      | 21.33        | 21.63         |
|           |            | 50      | 0         | 20.50                   | 20.52      | 20.50        | 20.63         |
|           |            | 50      | 25        | 20.57                   | 20.49      | 20.55        | 20.63         |
|           |            | 50      | 50        | 20.59                   | 20.51      | 20.51        | 20.63         |
|           |            | 100     | 0         | 20.52                   | 20.50      | 20.49        | 20.63         |
|           |            |         |           |                         |            |              |               |

**Second - Antenna**

| LTE FDD Band 2<br>(Receiver on) |            |         |           | Conducted Power(dBm)    |            |              | Tune-up<br>Limit |
|---------------------------------|------------|---------|-----------|-------------------------|------------|--------------|------------------|
| Bandwidth                       | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              |                  |
|                                 |            |         |           | 18607/1850.7            | 18900/1880 | 19193/1909.3 |                  |
| 1.4MHz                          | QPSK       | 1       | 0         | 16.43                   | 16.74      | 16.54        | 17.50            |
|                                 |            | 1       | 2         | 16.29                   | 16.33      | 16.32        | 17.50            |
|                                 |            | 1       | 5         | 16.46                   | 16.62      | 16.63        | 17.50            |
|                                 |            | 3       | 0         | 16.23                   | 16.52      | 16.53        | 17.50            |

|           |            | 3       | 2         | 16.22                   | 16.30      | 16.25        | 17.50         |
|-----------|------------|---------|-----------|-------------------------|------------|--------------|---------------|
|           |            | 3       | 3         | 16.27                   | 16.36      | 16.36        | 17.50         |
|           |            | 6       | 0         | 16.17                   | 16.38      | 16.48        | 17.50         |
|           | 16QAM      | 1       | 0         | 16.99                   | 16.75      | 17.01        | 17.50         |
|           |            | 1       | 2         | 16.49                   | 16.96      | 16.79        | 17.50         |
|           |            | 1       | 5         | 16.90                   | 16.90      | 16.91        | 17.50         |
|           |            | 3       | 0         | 16.16                   | 16.26      | 16.24        | 17.50         |
|           |            | 3       | 2         | 16.17                   | 16.39      | 16.35        | 17.50         |
|           |            | 3       | 3         | 16.18                   | 16.33      | 16.20        | 17.50         |
|           |            | 6       | 0         | 16.16                   | 16.32      | 16.42        | 17.50         |
|           |            | 1       | 0         | 16.90                   | 16.81      | 16.87        | 17.50         |
|           | 64QAM      | 1       | 2         | 16.82                   | 16.84      | 16.82        | 17.50         |
|           |            | 1       | 5         | 16.58                   | 16.55      | 16.69        | 17.50         |
|           |            | 3       | 0         | 16.87                   | 16.78      | 16.78        | 17.50         |
|           |            | 3       | 2         | 16.85                   | 16.80      | 16.67        | 17.50         |
|           |            | 3       | 3         | 16.51                   | 16.51      | 16.43        | 17.50         |
|           |            | 6       | 0         | 16.80                   | 16.83      | 16.88        | 17.50         |
|           |            | 6       | 0         | 16.80                   | 16.83      | 16.88        | 17.50         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 18615/1851.5            | 18900/1880 | 19185/1908.5 |               |
| 3MHz      | QPSK       | 1       | 0         | 16.45                   | 16.78      | 16.57        | 17.50         |
|           |            | 1       | 7         | 16.29                   | 16.35      | 16.36        | 17.50         |
|           |            | 1       | 14        | 16.49                   | 16.67      | 16.67        | 17.50         |
|           |            | 8       | 0         | 16.27                   | 16.59      | 16.60        | 17.50         |
|           |            | 8       | 4         | 16.25                   | 16.38      | 16.31        | 17.50         |
|           |            | 8       | 7         | 16.31                   | 16.41      | 16.40        | 17.50         |
|           |            | 15      | 0         | 16.19                   | 16.42      | 16.51        | 17.50         |
|           | 16QAM      | 1       | 0         | 17.02                   | 16.77      | 17.04        | 17.50         |
|           |            | 1       | 7         | 16.52                   | 16.98      | 16.83        | 17.50         |
|           |            | 1       | 14        | 16.92                   | 16.94      | 16.94        | 17.50         |
|           |            | 8       | 0         | 16.21                   | 16.30      | 16.27        | 17.50         |
|           |            | 8       | 4         | 16.22                   | 16.46      | 16.41        | 17.50         |
|           |            | 8       | 7         | 16.22                   | 16.39      | 16.27        | 17.50         |
|           |            | 15      | 0         | 16.19                   | 16.36      | 16.45        | 17.50         |
|           | 64QAM      | 1       | 0         | 16.93                   | 16.83      | 16.90        | 17.50         |
|           |            | 1       | 7         | 16.85                   | 16.86      | 16.86        | 17.50         |
|           |            | 1       | 14        | 16.60                   | 16.59      | 16.72        | 17.50         |
|           |            | 8       | 0         | 16.92                   | 16.82      | 16.81        | 17.50         |
|           |            | 8       | 4         | 16.90                   | 16.87      | 16.73        | 17.50         |
|           |            | 8       | 7         | 16.55                   | 16.57      | 16.50        | 17.50         |
|           |            | 15      | 0         | 16.82                   | 16.89      | 16.93        | 17.50         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 18625/1852.5            | 18900/1880 | 19175/1907.5 |               |
| 5MHz      | QPSK       | 1       | 0         | 16.42                   | 16.76      | 16.53        | 17.50         |

|           |            | 1       | 13        | 16.27                   | 16.31      | 16.33      | 17.50         |
|-----------|------------|---------|-----------|-------------------------|------------|------------|---------------|
|           |            | 1       | 24        | 16.46                   | 16.62      | 16.63      | 17.50         |
|           |            | 12      | 0         | 16.24                   | 16.54      | 16.56      | 17.50         |
|           |            | 12      | 6         | 16.23                   | 16.34      | 16.26      | 17.50         |
|           |            | 12      | 13        | 16.29                   | 16.39      | 16.36      | 17.50         |
|           |            | 25      | 0         | 16.17                   | 16.41      | 16.49      | 17.50         |
|           | 16QAM      | 1       | 0         | 16.99                   | 16.73      | 17.01      | 17.50         |
|           |            | 1       | 13        | 16.49                   | 16.96      | 16.80      | 17.50         |
|           |            | 1       | 24        | 16.89                   | 16.92      | 16.90      | 17.50         |
|           |            | 12      | 0         | 16.19                   | 16.26      | 16.24      | 17.50         |
|           |            | 12      | 6         | 16.19                   | 16.41      | 16.37      | 17.50         |
|           |            | 12      | 13        | 16.19                   | 16.34      | 16.23      | 17.50         |
|           |            | 25      | 0         | 16.17                   | 16.32      | 16.40      | 17.50         |
|           | 64QAM      | 1       | 0         | 16.90                   | 16.79      | 16.87      | 17.50         |
|           |            | 1       | 13        | 16.82                   | 16.84      | 16.83      | 17.50         |
|           |            | 1       | 24        | 16.57                   | 16.57      | 16.68      | 17.50         |
|           |            | 12      | 0         | 16.90                   | 16.78      | 16.78      | 17.50         |
|           |            | 12      | 6         | 16.87                   | 16.82      | 16.69      | 17.50         |
|           |            | 12      | 13        | 16.52                   | 16.52      | 16.46      | 17.50         |
|           |            | 25      | 0         | 16.80                   | 16.85      | 16.88      | 17.50         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |            | Tune-up Limit |
|           |            |         |           | 18650/1855              | 18900/1880 | 19150/1905 |               |
| 10MHz     | QPSK       | 1       | 0         | 16.43                   | 16.75      | 16.55      | 17.50         |
|           |            | 1       | 25        | 16.28                   | 16.35      | 16.35      | 17.50         |
|           |            | 1       | 49        | 16.47                   | 16.64      | 16.65      | 17.50         |
|           |            | 25      | 0         | 16.25                   | 16.58      | 16.58      | 17.50         |
|           |            | 25      | 13        | 16.25                   | 16.37      | 16.29      | 17.50         |
|           |            | 25      | 25        | 16.29                   | 16.39      | 16.40      | 17.50         |
|           |            | 50      | 0         | 16.17                   | 16.42      | 16.50      | 17.50         |
|           | 16QAM      | 1       | 0         | 16.98                   | 16.71      | 17.01      | 17.50         |
|           |            | 1       | 25        | 16.51                   | 16.99      | 16.78      | 17.50         |
|           |            | 1       | 49        | 16.90                   | 16.90      | 16.92      | 17.50         |
|           |            | 25      | 0         | 16.17                   | 16.30      | 16.25      | 17.50         |
|           |            | 25      | 13        | 16.18                   | 16.40      | 16.38      | 17.50         |
|           |            | 25      | 25        | 16.21                   | 16.38      | 16.22      | 17.50         |
|           |            | 50      | 0         | 16.16                   | 16.34      | 16.40      | 17.50         |
|           | 64QAM      | 1       | 0         | 16.90                   | 16.78      | 16.88      | 17.50         |
|           |            | 1       | 25        | 16.84                   | 16.86      | 16.83      | 17.50         |
|           |            | 1       | 49        | 16.57                   | 16.54      | 16.69      | 17.50         |
|           |            | 25      | 0         | 16.92                   | 16.82      | 16.77      | 17.50         |
|           |            | 25      | 13        | 16.85                   | 16.83      | 16.68      | 17.50         |
|           |            | 25      | 25        | 16.53                   | 16.53      | 16.49      | 17.50         |
|           |            | 50      | 0         | 16.82                   | 16.88      | 16.89      | 17.50         |

| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|-----------|------------|---------|-----------|-------------------------|------------|--------------|---------------|
|           |            |         |           | 18675/1857.5            | 18900/1880 | 19125/1902.5 |               |
| 15MHz     | QPSK       | 1       | 0         | 16.43                   | 16.73      | 16.54        | 17.50         |
|           |            | 1       | 38        | 16.28                   | 16.35      | 16.34        | 17.50         |
|           |            | 1       | 74        | 16.45                   | 16.61      | 16.62        | 17.50         |
|           |            | 36      | 0         | 16.25                   | 16.55      | 16.57        | 17.50         |
|           |            | 36      | 18        | 16.23                   | 16.34      | 16.26        | 17.50         |
|           |            | 36      | 39        | 16.28                   | 16.40      | 16.37        | 17.50         |
|           |            | 75      | 0         | 16.20                   | 16.39      | 16.48        | 17.50         |
|           | 16QAM      | 1       | 0         | 16.96                   | 16.74      | 17.01        | 17.50         |
|           |            | 1       | 38        | 16.50                   | 16.97      | 16.81        | 17.50         |
|           |            | 1       | 74        | 16.89                   | 16.90      | 16.90        | 17.50         |
|           |            | 36      | 0         | 16.19                   | 16.29      | 16.25        | 17.50         |
|           |            | 36      | 18        | 16.18                   | 16.40      | 16.36        | 17.50         |
|           |            | 36      | 39        | 16.20                   | 16.35      | 16.24        | 17.50         |
|           |            | 75      | 0         | 16.17                   | 16.32      | 16.40        | 17.50         |
|           | 64QAM      | 1       | 0         | 16.87                   | 16.80      | 16.87        | 17.50         |
|           |            | 1       | 38        | 16.83                   | 16.85      | 16.84        | 17.50         |
|           |            | 1       | 74        | 16.57                   | 16.55      | 16.68        | 17.50         |
|           |            | 36      | 0         | 16.90                   | 16.81      | 16.79        | 17.50         |
|           |            | 36      | 18        | 16.86                   | 16.81      | 16.68        | 17.50         |
|           |            | 36      | 39        | 16.53                   | 16.53      | 16.47        | 17.50         |
|           |            | 75      | 0         | 16.80                   | 16.85      | 16.88        | 17.50         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 18700/1860              | 18900/1880 | 19100/1900   |               |
| 20MHz     | QPSK       | 1       | 0         | 16.40                   | 16.69      | 16.51        | 17.50         |
|           |            | 1       | 50        | 16.27                   | 16.31      | 16.32        | 17.50         |
|           |            | 1       | 99        | 16.43                   | 16.60      | 16.59        | 17.50         |
|           |            | 50      | 0         | 16.22                   | 16.50      | 16.53        | 17.50         |
|           |            | 50      | 25        | 16.21                   | 16.30      | 16.23        | 17.50         |
|           |            | 50      | 50        | 16.25                   | 16.35      | 16.33        | 17.50         |
|           |            | 100     | 0         | 16.17                   | 16.34      | 16.44        | 17.50         |
|           | 16QAM      | 1       | 0         | 16.94                   | 16.70      | 16.96        | 17.50         |
|           |            | 1       | 50        | 16.46                   | 16.95      | 16.77        | 17.50         |
|           |            | 1       | 99        | 16.87                   | 16.87      | 16.88        | 17.50         |
|           |            | 50      | 0         | 16.16                   | 16.25      | 16.22        | 17.50         |
|           |            | 50      | 25        | 16.15                   | 16.38      | 16.33        | 17.50         |
|           |            | 50      | 50        | 16.17                   | 16.30      | 16.20        | 17.50         |
|           |            | 100     | 0         | 16.15                   | 16.28      | 16.37        | 17.50         |
|           | 64QAM      | 1       | 0         | 16.85                   | 16.76      | 16.82        | 17.50         |
|           |            | 1       | 50        | 16.79                   | 16.83      | 16.80        | 17.50         |
|           |            | 1       | 99        | 16.55                   | 16.52      | 16.66        | 17.50         |
|           |            | 50      | 0         | 16.87                   | 16.77      | 16.76        | 17.50         |

|  |  |     |    |       |       |       |       |
|--|--|-----|----|-------|-------|-------|-------|
|  |  | 50  | 25 | 16.83 | 16.79 | 16.65 | 17.50 |
|  |  | 50  | 50 | 16.50 | 16.48 | 16.43 | 17.50 |
|  |  | 100 | 0  | 16.78 | 16.81 | 16.85 | 17.50 |

| LTE FDD Band 2<br>(Receiver off) |            |         |           | Conducted Power(dBm)    |            |              | Tune-up<br>Limit |
|----------------------------------|------------|---------|-----------|-------------------------|------------|--------------|------------------|
| Bandwidth                        | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              |                  |
|                                  |            |         |           | 18607/1850.7            | 18900/1880 | 19193/1909.3 |                  |
| 1.4MHz                           | QPSK       | 1       | 0         | 22.16                   | 22.30      | 22.10        | 23.00            |
|                                  |            | 1       | 2         | 21.84                   | 22.01      | 22.29        | 23.00            |
|                                  |            | 1       | 5         | 22.05                   | 22.07      | 22.25        | 23.00            |
|                                  |            | 3       | 0         | 21.14                   | 21.19      | 21.14        | 23.00            |
|                                  |            | 3       | 2         | 21.12                   | 21.11      | 21.19        | 23.00            |
|                                  |            | 3       | 3         | 21.16                   | 21.15      | 21.18        | 23.00            |
|                                  |            | 6       | 0         | 20.89                   | 21.17      | 21.00        | 22.00            |
|                                  | 16QAM      | 1       | 0         | 21.43                   | 21.52      | 21.41        | 22.00            |
|                                  |            | 1       | 2         | 21.37                   | 21.44      | 21.23        | 22.00            |
|                                  |            | 1       | 5         | 21.49                   | 21.41      | 21.35        | 22.00            |
|                                  |            | 3       | 0         | 20.02                   | 20.22      | 20.82        | 22.00            |
|                                  |            | 3       | 2         | 19.83                   | 20.07      | 20.11        | 22.00            |
|                                  |            | 3       | 3         | 19.89                   | 20.03      | 19.90        | 22.00            |
|                                  |            | 6       | 0         | 20.00                   | 20.02      | 19.99        | 21.00            |
|                                  | 64QAM      | 1       | 0         | 19.84                   | 19.93      | 19.90        | 21.00            |
|                                  |            | 1       | 2         | 19.90                   | 19.93      | 19.91        | 21.00            |
|                                  |            | 1       | 5         | 19.86                   | 19.88      | 19.93        | 21.00            |
|                                  |            | 3       | 0         | 19.01                   | 19.22      | 19.33        | 21.00            |
|                                  |            | 3       | 2         | 19.36                   | 19.16      | 19.24        | 21.00            |
|                                  |            | 3       | 3         | 19.03                   | 19.20      | 19.20        | 21.00            |
|                                  |            | 6       | 0         | 19.08                   | 19.36      | 19.36        | 20.00            |
| Bandwidth                        | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up<br>Limit |
|                                  |            |         |           | 18615/1851.5            | 18900/1880 | 19185/1908.5 |                  |
| 3MHz                             | QPSK       | 1       | 0         | 22.18                   | 22.34      | 22.13        | 23.00            |
|                                  |            | 1       | 7         | 21.84                   | 22.03      | 22.33        | 23.00            |
|                                  |            | 1       | 14        | 22.08                   | 22.12      | 22.29        | 23.00            |
|                                  |            | 8       | 0         | 21.03                   | 21.26      | 21.21        | 22.00            |
|                                  |            | 8       | 4         | 20.85                   | 21.19      | 21.05        | 22.00            |
|                                  |            | 8       | 7         | 21.00                   | 21.20      | 20.92        | 22.00            |
|                                  |            | 15      | 0         | 20.91                   | 21.21      | 21.03        | 22.00            |
|                                  | 16QAM      | 1       | 0         | 21.46                   | 21.54      | 21.44        | 22.00            |
|                                  |            | 1       | 7         | 21.40                   | 21.46      | 21.27        | 22.00            |
|                                  |            | 1       | 14        | 21.51                   | 21.45      | 21.38        | 22.00            |
|                                  |            | 8       | 0         | 20.07                   | 20.26      | 20.85        | 21.00            |
|                                  |            | 8       | 4         | 19.88                   | 20.14      | 20.17        | 21.00            |

|           |            | 8       | 7         | 19.93                   | 20.09      | 19.97        | 21.00         |
|-----------|------------|---------|-----------|-------------------------|------------|--------------|---------------|
|           |            | 15      | 0         | 20.03                   | 20.06      | 20.02        | 21.00         |
|           | 64QAM      | 1       | 0         | 19.87                   | 19.95      | 19.93        | 21.00         |
|           |            | 1       | 7         | 19.93                   | 19.95      | 19.95        | 21.00         |
|           |            | 1       | 14        | 19.88                   | 19.92      | 19.96        | 21.00         |
|           |            | 8       | 0         | 19.06                   | 19.26      | 19.36        | 20.00         |
|           |            | 8       | 4         | 19.41                   | 19.23      | 19.30        | 20.00         |
|           |            | 8       | 7         | 19.07                   | 19.26      | 19.27        | 20.00         |
|           |            | 15      | 0         | 19.10                   | 19.42      | 19.41        | 20.00         |
|           |            |         |           |                         |            |              |               |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 18625/1852.5            | 18900/1880 | 19175/1907.5 |               |
| 5MHz      | QPSK       | 1       | 0         | 22.15                   | 22.32      | 22.09        | 23.00         |
|           |            | 1       | 13        | 21.82                   | 21.99      | 22.30        | 23.00         |
|           |            | 1       | 24        | 22.05                   | 22.07      | 22.25        | 23.00         |
|           |            | 12      | 0         | 21.00                   | 21.21      | 21.17        | 22.00         |
|           |            | 12      | 6         | 20.83                   | 21.15      | 21.00        | 22.00         |
|           |            | 12      | 13        | 20.98                   | 21.18      | 20.88        | 22.00         |
|           |            | 25      | 0         | 20.89                   | 21.20      | 21.01        | 22.00         |
|           |            |         |           |                         |            |              |               |
|           | 16QAM      | 1       | 0         | 21.43                   | 21.50      | 21.41        | 22.00         |
|           |            | 1       | 13        | 21.37                   | 21.44      | 21.24        | 22.00         |
|           |            | 1       | 24        | 21.48                   | 21.43      | 21.34        | 22.00         |
|           |            | 12      | 0         | 20.05                   | 20.22      | 20.82        | 21.00         |
|           |            | 12      | 6         | 19.85                   | 20.09      | 20.13        | 21.00         |
|           |            | 12      | 13        | 19.90                   | 20.04      | 19.93        | 21.00         |
|           |            | 25      | 0         | 20.01                   | 20.02      | 19.97        | 21.00         |
|           |            |         |           |                         |            |              |               |
|           | 64QAM      | 1       | 0         | 19.84                   | 19.91      | 19.90        | 21.00         |
|           |            | 1       | 13        | 19.90                   | 19.93      | 19.92        | 21.00         |
|           |            | 1       | 24        | 19.85                   | 19.90      | 19.92        | 21.00         |
|           |            | 12      | 0         | 19.04                   | 19.22      | 19.33        | 20.00         |
|           |            | 12      | 6         | 19.38                   | 19.18      | 19.26        | 20.00         |
|           |            | 12      | 13        | 19.04                   | 19.21      | 19.23        | 20.00         |
|           |            | 25      | 0         | 19.08                   | 19.38      | 19.36        | 20.00         |
|           |            |         |           |                         |            |              |               |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 18650/1855              | 18900/1880 | 19150/1905   |               |
| 10MHz     | QPSK       | 1       | 0         | 22.16                   | 22.31      | 22.11        | 23.00         |
|           |            | 1       | 25        | 21.83                   | 22.03      | 22.32        | 23.00         |
|           |            | 1       | 49        | 22.06                   | 22.09      | 22.27        | 23.00         |
|           |            | 25      | 0         | 21.01                   | 21.25      | 21.19        | 22.00         |
|           |            | 25      | 13        | 20.85                   | 21.18      | 21.03        | 22.00         |
|           |            | 25      | 25        | 20.98                   | 21.18      | 20.92        | 22.00         |
|           |            | 50      | 0         | 20.89                   | 21.21      | 21.02        | 22.00         |
|           |            |         |           |                         |            |              |               |
|           | 16QAM      | 1       | 0         | 21.42                   | 21.48      | 21.41        | 22.00         |
|           |            | 1       | 25        | 21.39                   | 21.47      | 21.22        | 22.00         |

|           |            | 1       | 49        | 21.49                   | 21.41      | 21.36        | 22.00         |
|-----------|------------|---------|-----------|-------------------------|------------|--------------|---------------|
|           |            | 25      | 0         | 20.03                   | 20.26      | 20.83        | 21.00         |
|           |            | 25      | 13        | 19.84                   | 20.08      | 20.14        | 21.00         |
|           |            | 25      | 25        | 19.92                   | 20.08      | 19.92        | 21.00         |
|           |            | 50      | 0         | 20.00                   | 20.04      | 19.97        | 21.00         |
|           | 64QAM      | 1       | 0         | 19.84                   | 19.90      | 19.91        | 21.00         |
|           |            | 1       | 25        | 19.92                   | 19.95      | 19.92        | 21.00         |
|           |            | 1       | 49        | 19.85                   | 19.87      | 19.93        | 21.00         |
|           |            | 25      | 0         | 19.06                   | 19.26      | 19.32        | 20.00         |
|           |            | 25      | 13        | 19.36                   | 19.19      | 19.25        | 20.00         |
|           |            | 25      | 25        | 19.05                   | 19.22      | 19.26        | 20.00         |
|           |            | 50      | 0         | 19.10                   | 19.41      | 19.37        | 20.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 18675/1857.5            | 18900/1880 | 19125/1902.5 |               |
| 15MHz     | QPSK       | 1       | 0         | 22.16                   | 22.29      | 22.10        | 23.00         |
|           |            | 1       | 38        | 21.83                   | 22.03      | 22.31        | 23.00         |
|           |            | 1       | 74        | 22.04                   | 22.06      | 22.24        | 23.00         |
|           |            | 36      | 0         | 21.01                   | 21.22      | 21.18        | 22.00         |
|           |            | 36      | 18        | 20.83                   | 21.15      | 21.00        | 22.00         |
|           |            | 36      | 39        | 20.97                   | 21.19      | 20.89        | 22.00         |
|           |            | 75      | 0         | 20.92                   | 21.18      | 21.00        | 22.00         |
|           | 16QAM      | 1       | 0         | 21.40                   | 21.51      | 21.41        | 22.00         |
|           |            | 1       | 38        | 21.38                   | 21.45      | 21.25        | 22.00         |
|           |            | 1       | 74        | 21.48                   | 21.41      | 21.34        | 22.00         |
|           |            | 36      | 0         | 20.05                   | 20.25      | 20.83        | 21.00         |
|           |            | 36      | 18        | 19.84                   | 20.08      | 20.12        | 21.00         |
|           |            | 36      | 39        | 19.91                   | 20.05      | 19.94        | 21.00         |
|           |            | 75      | 0         | 20.01                   | 20.02      | 19.97        | 21.00         |
|           | 64QAM      | 1       | 0         | 19.81                   | 19.92      | 19.90        | 21.00         |
|           |            | 1       | 38        | 19.91                   | 19.94      | 19.93        | 21.00         |
|           |            | 1       | 74        | 19.85                   | 19.88      | 19.92        | 21.00         |
|           |            | 36      | 0         | 19.04                   | 19.25      | 19.34        | 20.00         |
|           |            | 36      | 18        | 19.37                   | 19.17      | 19.25        | 20.00         |
|           |            | 36      | 39        | 19.05                   | 19.22      | 19.24        | 20.00         |
|           |            | 75      | 0         | 19.08                   | 19.38      | 19.36        | 20.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 18700/1860              | 18900/1880 | 19100/1900   |               |
| 20MHz     | QPSK       | 1       | 0         | 22.13                   | 22.25      | 22.07        | 23.00         |
|           |            | 1       | 50        | 21.82                   | 21.99      | 22.29        | 23.00         |
|           |            | 1       | 99        | 22.02                   | 22.05      | 22.21        | 23.00         |
|           |            | 50      | 0         | 20.98                   | 21.17      | 21.14        | 22.00         |
|           |            | 50      | 25        | 20.81                   | 21.11      | 20.97        | 22.00         |
|           |            | 50      | 50        | 20.94                   | 21.14      | 20.85        | 22.00         |

|  |       |     |    |       |       |       |       |
|--|-------|-----|----|-------|-------|-------|-------|
|  |       | 100 | 0  | 20.89 | 21.13 | 20.96 | 22.00 |
|  | 16QAM | 1   | 0  | 21.38 | 21.47 | 21.36 | 22.00 |
|  |       | 1   | 50 | 21.34 | 21.43 | 21.21 | 22.00 |
|  |       | 1   | 99 | 21.46 | 21.38 | 21.32 | 22.00 |
|  |       | 50  | 0  | 20.02 | 20.21 | 20.80 | 21.00 |
|  |       | 50  | 25 | 19.81 | 20.06 | 20.09 | 21.00 |
|  |       | 50  | 50 | 19.88 | 20.00 | 19.90 | 21.00 |
|  |       | 100 | 0  | 19.99 | 19.98 | 19.94 | 21.00 |
|  | 64QAM | 1   | 0  | 19.79 | 19.88 | 19.85 | 21.00 |
|  |       | 1   | 50 | 19.87 | 19.92 | 19.89 | 21.00 |
|  |       | 1   | 99 | 19.83 | 19.85 | 19.90 | 21.00 |
|  |       | 50  | 0  | 19.01 | 19.21 | 19.31 | 20.00 |
|  |       | 50  | 25 | 19.34 | 19.15 | 19.22 | 20.00 |
|  |       | 50  | 50 | 19.02 | 19.17 | 19.20 | 20.00 |
|  |       | 100 | 0  | 19.06 | 19.34 | 19.33 | 20.00 |

| LTE FDD Band 4<br>(Receiver on) |            |         |           | Conducted Power(dBm)    |              |              | Tune-up<br>Limit |
|---------------------------------|------------|---------|-----------|-------------------------|--------------|--------------|------------------|
| Bandwidth                       | Modulation | RB size | RB offset | Channel/Frequency (MHz) |              |              |                  |
|                                 |            |         |           | 19957/1710.7            | 20175/1732.5 | 20393/1754.3 |                  |
| 1.4MHz                          | QPSK       | 1       | 0         | 15.38                   | 15.62        | 15.72        | 16.30            |
|                                 |            | 1       | 2         | 15.43                   | 15.53        | 15.12        | 16.30            |
|                                 |            | 1       | 5         | 15.43                   | 15.36        | 15.24        | 16.30            |
|                                 |            | 3       | 0         | 15.40                   | 15.29        | 15.43        | 16.30            |
|                                 |            | 3       | 2         | 15.23                   | 15.17        | 15.34        | 16.30            |
|                                 |            | 3       | 3         | 15.38                   | 15.33        | 15.19        | 16.30            |
|                                 |            | 6       | 0         | 15.18                   | 15.44        | 15.37        | 16.30            |
|                                 | 16QAM      | 1       | 0         | 15.93                   | 16.17        | 16.07        | 16.30            |
|                                 |            | 1       | 2         | 15.69                   | 15.78        | 15.74        | 16.30            |
|                                 |            | 1       | 5         | 15.84                   | 15.59        | 15.81        | 16.30            |
|                                 |            | 3       | 0         | 15.32                   | 15.35        | 15.39        | 16.30            |
|                                 |            | 3       | 2         | 15.20                   | 15.27        | 15.30        | 16.30            |
|                                 |            | 3       | 3         | 15.27                   | 15.26        | 15.18        | 16.30            |
|                                 |            | 6       | 0         | 15.20                   | 15.41        | 15.36        | 16.30            |
|                                 | 64QAM      | 1       | 0         | 15.81                   | 15.85        | 15.88        | 16.30            |
|                                 |            | 1       | 2         | 15.93                   | 15.79        | 15.90        | 16.30            |
|                                 |            | 1       | 5         | 15.85                   | 15.93        | 15.94        | 16.30            |
|                                 |            | 3       | 0         | 15.93                   | 15.69        | 15.81        | 16.30            |
|                                 |            | 3       | 2         | 15.83                   | 15.74        | 15.79        | 16.30            |
|                                 |            | 3       | 3         | 15.89                   | 15.81        | 15.85        | 16.30            |
|                                 |            | 6       | 0         | 15.93                   | 15.77        | 15.83        | 16.30            |
| Bandwidth                       | Modulation | RB size | RB offset | Channel/Frequency (MHz) |              |              | Tune-up<br>Limit |
|                                 |            |         |           | 19965/1711.5            | 20175/1732.5 | 20385/1753.5 |                  |



| <b>3MHz</b>      | <b>QPSK</b>       | 1              | 0                | 15.40                          | 15.66        | 15.75        | 16.30                |
|------------------|-------------------|----------------|------------------|--------------------------------|--------------|--------------|----------------------|
|                  |                   | 1              | 7                | 15.43                          | 15.55        | 15.16        | 16.30                |
|                  |                   | 1              | 14               | 15.46                          | 15.41        | 15.28        | 16.30                |
|                  |                   | 8              | 0                | 15.44                          | 15.36        | 15.50        | 16.30                |
|                  |                   | 8              | 4                | 15.26                          | 15.25        | 15.40        | 16.30                |
|                  |                   | 8              | 7                | 15.42                          | 15.38        | 15.23        | 16.30                |
|                  |                   | 15             | 0                | 15.20                          | 15.48        | 15.40        | 16.30                |
|                  | <b>16QAM</b>      | 1              | 0                | 15.96                          | 16.19        | 16.10        | 16.30                |
|                  |                   | 1              | 7                | 15.72                          | 15.80        | 15.78        | 16.30                |
|                  |                   | 1              | 14               | 15.86                          | 15.63        | 15.84        | 16.30                |
|                  |                   | 8              | 0                | 15.37                          | 15.39        | 15.42        | 16.30                |
|                  |                   | 8              | 4                | 15.25                          | 15.34        | 15.36        | 16.30                |
|                  |                   | 8              | 7                | 15.31                          | 15.32        | 15.25        | 16.30                |
|                  |                   | 15             | 0                | 15.23                          | 15.45        | 15.39        | 16.30                |
|                  | <b>64QAM</b>      | 1              | 0                | 15.84                          | 15.87        | 15.91        | 16.30                |
|                  |                   | 1              | 7                | 15.96                          | 15.81        | 15.94        | 16.30                |
|                  |                   | 1              | 14               | 15.87                          | 15.97        | 15.97        | 16.30                |
|                  |                   | 8              | 0                | 15.98                          | 15.73        | 15.84        | 16.30                |
|                  |                   | 8              | 4                | 15.88                          | 15.81        | 15.85        | 16.30                |
|                  |                   | 8              | 7                | 15.93                          | 15.87        | 15.92        | 16.30                |
|                  |                   | 15             | 0                | 15.95                          | 15.83        | 15.88        | 16.30                |
| <b>Bandwidth</b> | <b>Modulation</b> | <b>RB size</b> | <b>RB offset</b> | <b>Channel/Frequency (MHz)</b> |              |              | <b>Tune-up Limit</b> |
|                  |                   |                |                  | 19975/1712.5                   | 20175/1732.5 | 20375/1752.5 |                      |
| <b>5MHz</b>      | <b>QPSK</b>       | 1              | 0                | 15.37                          | 15.64        | 15.71        | 16.30                |
|                  |                   | 1              | 13               | 15.41                          | 15.51        | 15.13        | 16.30                |
|                  |                   | 1              | 24               | 15.43                          | 15.36        | 15.24        | 16.30                |
|                  |                   | 12             | 0                | 15.41                          | 15.31        | 15.46        | 16.30                |
|                  |                   | 12             | 6                | 15.24                          | 15.21        | 15.35        | 16.30                |
|                  |                   | 12             | 13               | 15.40                          | 15.36        | 15.19        | 16.30                |
|                  |                   | 25             | 0                | 15.18                          | 15.47        | 15.38        | 16.30                |
|                  | <b>16QAM</b>      | 1              | 0                | 15.93                          | 16.15        | 16.07        | 16.30                |
|                  |                   | 1              | 13               | 15.69                          | 15.78        | 15.75        | 16.30                |
|                  |                   | 1              | 24               | 15.83                          | 15.61        | 15.80        | 16.30                |
|                  |                   | 12             | 0                | 15.35                          | 15.35        | 15.39        | 16.30                |
|                  |                   | 12             | 6                | 15.22                          | 15.29        | 15.32        | 16.30                |
|                  |                   | 12             | 13               | 15.28                          | 15.27        | 15.21        | 16.30                |
|                  |                   | 25             | 0                | 15.21                          | 15.41        | 15.34        | 16.30                |
|                  | <b>64QAM</b>      | 1              | 0                | 15.81                          | 15.83        | 15.88        | 16.30                |
|                  |                   | 1              | 13               | 15.93                          | 15.79        | 15.91        | 16.30                |
|                  |                   | 1              | 24               | 15.84                          | 15.95        | 15.93        | 16.30                |
|                  |                   | 12             | 0                | 15.96                          | 15.69        | 15.81        | 16.30                |
|                  |                   | 12             | 6                | 15.85                          | 15.76        | 15.81        | 16.30                |
|                  |                   | 12             | 13               | 15.90                          | 15.82        | 15.88        | 16.30                |

|           |            | 25      | 0         | 15.93                   | 15.79        | 15.83        | 16.30         |
|-----------|------------|---------|-----------|-------------------------|--------------|--------------|---------------|
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |              |              | Tune-up Limit |
|           |            |         |           | 20000/1715              | 20175/1732.5 | 20350/1750   |               |
| 10MHz     | QPSK       | 1       | 0         | 15.38                   | 15.63        | 15.73        | 16.30         |
|           |            | 1       | 25        | 15.42                   | 15.55        | 15.15        | 16.30         |
|           |            | 1       | 49        | 15.44                   | 15.38        | 15.26        | 16.30         |
|           |            | 25      | 0         | 15.42                   | 15.35        | 15.48        | 16.30         |
|           |            | 25      | 13        | 15.26                   | 15.24        | 15.38        | 16.30         |
|           |            | 25      | 25        | 15.40                   | 15.36        | 15.23        | 16.30         |
|           |            | 50      | 0         | 15.18                   | 15.48        | 15.39        | 16.30         |
|           | 16QAM      | 1       | 0         | 15.92                   | 16.13        | 16.07        | 16.30         |
|           |            | 1       | 25        | 15.71                   | 15.81        | 15.73        | 16.30         |
|           |            | 1       | 49        | 15.84                   | 15.59        | 15.82        | 16.30         |
|           |            | 25      | 0         | 15.33                   | 15.39        | 15.40        | 16.30         |
|           |            | 25      | 13        | 15.21                   | 15.28        | 15.33        | 16.30         |
|           |            | 25      | 25        | 15.30                   | 15.31        | 15.20        | 16.30         |
|           |            | 50      | 0         | 15.20                   | 15.43        | 15.34        | 16.30         |
|           | 64QAM      | 1       | 0         | 15.81                   | 15.82        | 15.89        | 16.30         |
|           |            | 1       | 25        | 15.95                   | 15.81        | 15.91        | 16.30         |
|           |            | 1       | 49        | 15.84                   | 15.92        | 15.94        | 16.30         |
|           |            | 25      | 0         | 15.98                   | 15.73        | 15.80        | 16.30         |
|           |            | 25      | 13        | 15.83                   | 15.77        | 15.80        | 16.30         |
|           |            | 25      | 25        | 15.91                   | 15.83        | 15.91        | 16.30         |
|           |            | 50      | 0         | 15.95                   | 15.82        | 15.84        | 16.30         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |              |              | Tune-up Limit |
|           |            |         |           | 20025/1717.5            | 20175/1732.5 | 20325/1747.5 |               |
| 15MHz     | QPSK       | 1       | 0         | 15.38                   | 15.61        | 15.72        | 16.30         |
|           |            | 1       | 38        | 15.42                   | 15.55        | 15.14        | 16.30         |
|           |            | 1       | 74        | 15.42                   | 15.35        | 15.23        | 16.30         |
|           |            | 36      | 0         | 15.42                   | 15.32        | 15.47        | 16.30         |
|           |            | 36      | 18        | 15.24                   | 15.21        | 15.35        | 16.30         |
|           |            | 36      | 39        | 15.39                   | 15.37        | 15.20        | 16.30         |
|           |            | 75      | 0         | 15.21                   | 15.45        | 15.37        | 16.30         |
|           | 16QAM      | 1       | 0         | 15.90                   | 16.16        | 16.07        | 16.30         |
|           |            | 1       | 38        | 15.70                   | 15.79        | 15.76        | 16.30         |
|           |            | 1       | 74        | 15.83                   | 15.59        | 15.80        | 16.30         |
|           |            | 36      | 0         | 15.35                   | 15.38        | 15.40        | 16.30         |
|           |            | 36      | 18        | 15.21                   | 15.28        | 15.31        | 16.30         |
|           |            | 36      | 39        | 15.29                   | 15.28        | 15.22        | 16.30         |
|           |            | 75      | 0         | 15.21                   | 15.41        | 15.34        | 16.30         |
|           | 64QAM      | 1       | 0         | 15.78                   | 15.84        | 15.88        | 16.30         |
|           |            | 1       | 38        | 15.94                   | 15.80        | 15.92        | 16.30         |
|           |            | 1       | 74        | 15.84                   | 15.93        | 15.93        | 16.30         |

|           |            | 36      | 0         | 15.96                   | 15.72        | 15.82      | 16.30         |
|-----------|------------|---------|-----------|-------------------------|--------------|------------|---------------|
|           |            | 36      | 18        | 15.84                   | 15.75        | 15.80      | 16.30         |
|           |            | 36      | 39        | 15.91                   | 15.83        | 15.89      | 16.30         |
|           |            | 75      | 0         | 15.93                   | 15.79        | 15.83      | 16.30         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |              |            | Tune-up Limit |
|           |            |         |           | 20050/1720              | 20175/1732.5 | 20300/1745 |               |
| 20MHz     | QPSK       | 1       | 0         | 15.35                   | 15.57        | 15.69      | 16.30         |
|           |            | 1       | 50        | 15.41                   | 15.51        | 15.12      | 16.30         |
|           |            | 1       | 99        | 15.40                   | 15.34        | 15.20      | 16.30         |
|           |            | 50      | 0         | 15.39                   | 15.27        | 15.43      | 16.30         |
|           |            | 50      | 25        | 15.22                   | 15.17        | 15.32      | 16.30         |
|           |            | 50      | 50        | 15.36                   | 15.32        | 15.16      | 16.30         |
|           |            | 100     | 0         | 15.18                   | 15.40        | 15.33      | 16.30         |
|           | 16QAM      | 1       | 0         | 15.88                   | 16.12        | 16.02      | 16.30         |
|           |            | 1       | 50        | 15.66                   | 15.77        | 15.72      | 16.30         |
|           |            | 1       | 99        | 15.81                   | 15.56        | 15.78      | 16.30         |
|           |            | 50      | 0         | 15.32                   | 15.34        | 15.37      | 16.30         |
|           |            | 50      | 25        | 15.18                   | 15.26        | 15.28      | 16.30         |
|           |            | 50      | 50        | 15.26                   | 15.23        | 15.18      | 16.30         |
|           |            | 100     | 0         | 15.19                   | 15.37        | 15.31      | 16.30         |
|           | 64QAM      | 1       | 0         | 15.76                   | 15.80        | 15.83      | 16.30         |
|           |            | 1       | 50        | 15.90                   | 15.78        | 15.88      | 16.30         |
|           |            | 1       | 99        | 15.82                   | 15.90        | 15.91      | 16.30         |
|           |            | 50      | 0         | 15.93                   | 15.68        | 15.79      | 16.30         |
|           |            | 50      | 25        | 15.81                   | 15.73        | 15.77      | 16.30         |
|           |            | 50      | 50        | 15.88                   | 15.78        | 15.85      | 16.30         |
|           |            | 100     | 0         | 15.91                   | 15.75        | 15.80      | 16.30         |

| LTE FDD Band 4<br>(Receiver off) |            |         |           | Conducted Power(dBm)    |              |              | Tune-up<br>Limit |
|----------------------------------|------------|---------|-----------|-------------------------|--------------|--------------|------------------|
| Bandwidth                        | Modulation | RB size | RB offset | Channel/Frequency (MHz) |              |              |                  |
|                                  |            |         |           | 19957/1710.7            | 20175/1732.5 | 20393/1754.3 |                  |
| 1.4MHz                           | QPSK       | 1       | 0         | 22.06                   | 21.88        | 22.04        | 22.80            |
|                                  |            | 1       | 2         | 21.91                   | 21.79        | 21.79        | 22.80            |
|                                  |            | 1       | 5         | 21.86                   | 21.80        | 21.81        | 22.80            |
|                                  |            | 3       | 0         | 21.02                   | 20.91        | 20.92        | 22.80            |
|                                  |            | 3       | 2         | 20.83                   | 20.83        | 20.82        | 22.80            |
|                                  |            | 3       | 3         | 20.85                   | 20.81        | 20.84        | 22.80            |
|                                  |            | 6       | 0         | 20.87                   | 20.89        | 20.77        | 21.80            |
|                                  | 16QAM      | 1       | 0         | 21.13                   | 20.87        | 21.19        | 21.80            |
|                                  |            | 1       | 2         | 21.12                   | 21.13        | 21.12        | 21.80            |
|                                  |            | 1       | 5         | 21.18                   | 21.18        | 21.06        | 21.80            |
|                                  |            | 3       | 0         | 20.17                   | 20.37        | 20.24        | 21.80            |

|           |            | 3       | 2         | 20.06                   | 20.31        | 20.15        | 21.80         |
|-----------|------------|---------|-----------|-------------------------|--------------|--------------|---------------|
|           |            | 3       | 3         | 20.26                   | 20.30        | 20.09        | 20.80         |
|           |            | 6       | 0         | 20.14                   | 20.30        | 20.07        | 20.80         |
|           | 64QAM      | 1       | 0         | 20.40                   | 20.46        | 20.44        | 20.80         |
|           |            | 1       | 2         | 20.26                   | 20.02        | 20.05        | 20.80         |
|           |            | 1       | 5         | 20.18                   | 20.27        | 20.36        | 20.80         |
|           |            | 3       | 0         | 18.35                   | 18.63        | 18.68        | 20.80         |
|           |            | 3       | 2         | 19.01                   | 18.92        | 18.71        | 20.80         |
|           |            | 3       | 3         | 19.02                   | 19.26        | 19.13        | 20.80         |
|           |            | 6       | 0         | 18.88                   | 19.01        | 19.13        | 19.80         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |              |              | Tune-up Limit |
|           |            |         |           | 19965/1711.5            | 20175/1732.5 | 20385/1753.5 |               |
| 3MHz      | QPSK       | 1       | 0         | 22.08                   | 21.92        | 22.07        | 22.80         |
|           |            | 1       | 7         | 21.91                   | 21.81        | 21.83        | 22.80         |
|           |            | 1       | 14        | 21.89                   | 21.85        | 21.85        | 22.80         |
|           |            | 8       | 0         | 21.06                   | 20.98        | 20.99        | 21.80         |
|           |            | 8       | 4         | 20.86                   | 20.91        | 20.88        | 21.80         |
|           |            | 8       | 7         | 20.89                   | 20.84        | 20.72        | 21.80         |
|           |            | 15      | 0         | 20.89                   | 20.93        | 20.80        | 21.80         |
|           | 16QAM      | 1       | 0         | 21.16                   | 20.89        | 21.22        | 21.80         |
|           |            | 1       | 7         | 21.15                   | 21.15        | 21.16        | 21.80         |
|           |            | 1       | 14        | 21.20                   | 21.22        | 21.09        | 21.80         |
|           |            | 8       | 0         | 20.22                   | 20.41        | 20.27        | 20.80         |
|           |            | 8       | 4         | 20.11                   | 20.38        | 20.21        | 20.80         |
|           |            | 8       | 7         | 20.30                   | 20.36        | 20.16        | 20.80         |
|           |            | 15      | 0         | 20.17                   | 20.34        | 20.10        | 20.80         |
|           | 64QAM      | 1       | 0         | 20.43                   | 20.48        | 20.47        | 20.80         |
|           |            | 1       | 7         | 20.29                   | 20.04        | 20.09        | 20.80         |
|           |            | 1       | 14        | 20.20                   | 20.31        | 20.39        | 20.80         |
|           |            | 8       | 0         | 18.40                   | 18.67        | 18.71        | 19.80         |
|           |            | 8       | 4         | 19.06                   | 18.99        | 18.77        | 19.80         |
|           |            | 8       | 7         | 19.06                   | 19.32        | 19.20        | 19.80         |
|           |            | 15      | 0         | 18.90                   | 19.07        | 19.18        | 19.80         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |              |              | Tune-up Limit |
|           |            |         |           | 19975/1712.5            | 20175/1732.5 | 20375/1752.5 |               |
| 5MHz      | QPSK       | 1       | 0         | 22.05                   | 21.90        | 22.03        | 22.80         |
|           |            | 1       | 13        | 21.89                   | 21.77        | 21.80        | 22.80         |
|           |            | 1       | 24        | 21.86                   | 21.80        | 21.81        | 22.80         |
|           |            | 12      | 0         | 21.03                   | 20.93        | 20.95        | 21.80         |
|           |            | 12      | 6         | 20.84                   | 20.87        | 20.83        | 21.80         |
|           |            | 12      | 13        | 20.87                   | 20.82        | 20.68        | 21.80         |
|           |            | 25      | 0         | 20.87                   | 20.92        | 20.78        | 21.80         |
|           | 16QAM      | 1       | 0         | 21.13                   | 20.85        | 21.19        | 21.80         |

|           |            | 1       | 13        | 21.12                   | 21.13        | 21.13        | 21.80         |
|-----------|------------|---------|-----------|-------------------------|--------------|--------------|---------------|
|           |            | 1       | 24        | 21.17                   | 21.20        | 21.05        | 21.80         |
|           |            | 12      | 0         | 20.20                   | 20.37        | 20.24        | 20.80         |
|           |            | 12      | 6         | 20.08                   | 20.33        | 20.17        | 20.80         |
|           |            | 12      | 13        | 20.27                   | 20.31        | 20.12        | 20.80         |
|           |            | 25      | 0         | 20.15                   | 20.30        | 20.05        | 20.80         |
|           | 64QAM      | 1       | 0         | 20.40                   | 20.44        | 20.44        | 20.80         |
|           |            | 1       | 13        | 20.26                   | 20.02        | 20.06        | 20.80         |
|           |            | 1       | 24        | 20.17                   | 20.29        | 20.35        | 20.80         |
|           |            | 12      | 0         | 18.38                   | 18.63        | 18.68        | 19.80         |
|           |            | 12      | 6         | 19.03                   | 18.94        | 18.73        | 19.80         |
|           |            | 12      | 13        | 19.03                   | 19.27        | 19.16        | 19.80         |
|           |            | 25      | 0         | 18.88                   | 19.03        | 19.13        | 19.80         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |              |              | Tune-up Limit |
|           |            |         |           | 20000/1715              | 20175/1732.5 | 20350/1750   |               |
| 10MHz     | QPSK       | 1       | 0         | 22.06                   | 21.89        | 22.05        | 22.80         |
|           |            | 1       | 25        | 21.90                   | 21.81        | 21.82        | 22.80         |
|           |            | 1       | 49        | 21.87                   | 21.82        | 21.83        | 22.80         |
|           |            | 25      | 0         | 21.04                   | 20.97        | 20.97        | 21.80         |
|           |            | 25      | 13        | 20.86                   | 20.90        | 20.86        | 21.80         |
|           |            | 25      | 25        | 20.87                   | 20.82        | 20.72        | 21.80         |
|           |            | 50      | 0         | 20.87                   | 20.93        | 20.79        | 21.80         |
|           | 16QAM      | 1       | 0         | 21.12                   | 20.83        | 21.19        | 21.80         |
|           |            | 1       | 25        | 21.14                   | 21.16        | 21.11        | 21.80         |
|           |            | 1       | 49        | 21.18                   | 21.18        | 21.07        | 21.80         |
|           |            | 25      | 0         | 20.18                   | 20.41        | 20.25        | 20.80         |
|           |            | 25      | 13        | 20.07                   | 20.32        | 20.18        | 20.80         |
|           |            | 25      | 25        | 20.29                   | 20.35        | 20.11        | 20.80         |
|           |            | 50      | 0         | 20.14                   | 20.32        | 20.05        | 20.80         |
|           | 64QAM      | 1       | 0         | 20.40                   | 20.43        | 20.45        | 20.80         |
|           |            | 1       | 25        | 20.28                   | 20.04        | 20.06        | 20.80         |
|           |            | 1       | 49        | 20.17                   | 20.26        | 20.36        | 20.80         |
|           |            | 25      | 0         | 18.40                   | 18.67        | 18.67        | 19.80         |
|           |            | 25      | 13        | 19.01                   | 18.95        | 18.72        | 19.80         |
|           |            | 25      | 25        | 19.04                   | 19.28        | 19.19        | 19.80         |
|           |            | 50      | 0         | 18.90                   | 19.06        | 19.14        | 19.80         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |              |              | Tune-up Limit |
|           |            |         |           | 20025/1717.5            | 20175/1732.5 | 20325/1747.5 |               |
| 15MHz     | QPSK       | 1       | 0         | 22.06                   | 21.87        | 22.04        | 22.80         |
|           |            | 1       | 38        | 21.90                   | 21.81        | 21.81        | 22.80         |
|           |            | 1       | 74        | 21.85                   | 21.79        | 21.80        | 22.80         |
|           |            | 36      | 0         | 21.04                   | 20.94        | 20.96        | 21.80         |
|           |            | 36      | 18        | 20.84                   | 20.87        | 20.83        | 21.80         |

|           |            | 36      | 39        | 20.86                   | 20.83        | 20.69      | 21.80         |
|-----------|------------|---------|-----------|-------------------------|--------------|------------|---------------|
|           |            | 75      | 0         | 20.90                   | 20.90        | 20.77      | 21.80         |
|           | 16QAM      | 1       | 0         | 21.10                   | 20.86        | 21.19      | 21.80         |
|           |            | 1       | 38        | 21.13                   | 21.14        | 21.14      | 21.80         |
|           |            | 1       | 74        | 21.17                   | 21.18        | 21.05      | 21.80         |
|           |            | 36      | 0         | 20.20                   | 20.40        | 20.25      | 20.80         |
|           |            | 36      | 18        | 20.07                   | 20.32        | 20.16      | 20.80         |
|           |            | 36      | 39        | 20.28                   | 20.32        | 20.13      | 20.80         |
|           |            | 75      | 0         | 20.15                   | 20.30        | 20.05      | 20.80         |
|           | 64QAM      | 1       | 0         | 20.37                   | 20.45        | 20.44      | 20.80         |
|           |            | 1       | 38        | 20.27                   | 20.03        | 20.07      | 20.80         |
|           |            | 1       | 74        | 20.17                   | 20.27        | 20.35      | 20.80         |
|           |            | 36      | 0         | 18.38                   | 18.66        | 18.69      | 19.80         |
|           |            | 36      | 18        | 19.02                   | 18.93        | 18.72      | 19.80         |
|           |            | 36      | 39        | 19.04                   | 19.28        | 19.17      | 19.80         |
|           |            | 75      | 0         | 18.88                   | 19.03        | 19.13      | 19.80         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |              |            | Tune-up Limit |
|           |            |         |           | 20050/1720              | 20175/1732.5 | 20300/1745 |               |
| 20MHz     | QPSK       | 1       | 0         | 22.03                   | 21.83        | 22.01      | 22.80         |
|           |            | 1       | 50        | 21.89                   | 21.77        | 21.79      | 22.80         |
|           |            | 1       | 99        | 21.83                   | 21.78        | 21.77      | 22.80         |
|           |            | 50      | 0         | 21.01                   | 20.89        | 20.92      | 21.80         |
|           |            | 50      | 25        | 20.82                   | 20.83        | 20.80      | 21.80         |
|           |            | 50      | 50        | 20.83                   | 20.78        | 20.65      | 21.80         |
|           |            | 100     | 0         | 20.87                   | 20.85        | 20.73      | 21.80         |
|           | 16QAM      | 1       | 0         | 21.08                   | 20.82        | 21.14      | 21.80         |
|           |            | 1       | 50        | 21.09                   | 21.12        | 21.10      | 21.80         |
|           |            | 1       | 99        | 21.15                   | 21.15        | 21.03      | 21.80         |
|           |            | 50      | 0         | 20.17                   | 20.36        | 20.22      | 20.80         |
|           |            | 50      | 25        | 20.04                   | 20.30        | 20.13      | 20.80         |
|           |            | 50      | 50        | 20.25                   | 20.27        | 20.09      | 20.80         |
|           |            | 100     | 0         | 20.13                   | 20.26        | 20.02      | 20.80         |
|           | 64QAM      | 1       | 0         | 20.35                   | 20.41        | 20.39      | 20.80         |
|           |            | 1       | 50        | 20.23                   | 20.01        | 20.03      | 20.80         |
|           |            | 1       | 99        | 20.15                   | 20.24        | 20.33      | 20.80         |
|           |            | 50      | 0         | 18.35                   | 18.62        | 18.66      | 19.80         |
|           |            | 50      | 25        | 18.99                   | 18.91        | 18.69      | 19.80         |
|           |            | 50      | 50        | 19.01                   | 19.23        | 19.13      | 19.80         |
|           |            | 100     | 0         | 18.86                   | 18.99        | 19.10      | 19.80         |

| LTE FDD Band 5<br>(Receiver on) |            |         |           | Conducted Power(dBm)    |             |             | Tune-up<br>Limit |
|---------------------------------|------------|---------|-----------|-------------------------|-------------|-------------|------------------|
| Bandwidth                       | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             |                  |
|                                 |            |         |           | 20407/824.7             | 20525/836.5 | 20643/848.3 |                  |
| 1.4MHz                          | QPSK       | 1       | 0         | 18.13                   | 18.03       | 18.00       | 19.00            |
|                                 |            | 1       | 2         | 18.21                   | 18.10       | 18.08       | 19.00            |
|                                 |            | 1       | 5         | 18.04                   | 18.15       | 18.05       | 19.00            |
|                                 |            | 3       | 0         | 18.18                   | 18.02       | 18.15       | 19.00            |
|                                 |            | 3       | 2         | 18.10                   | 18.10       | 18.14       | 19.00            |
|                                 |            | 3       | 3         | 18.10                   | 18.02       | 18.00       | 19.00            |
|                                 |            | 6       | 0         | 18.00                   | 18.13       | 18.00       | 19.00            |
|                                 | 16QAM      | 1       | 0         | 18.25                   | 18.51       | 18.52       | 19.00            |
|                                 |            | 1       | 2         | 18.54                   | 18.51       | 17.93       | 19.00            |
|                                 |            | 1       | 5         | 18.55                   | 18.45       | 18.70       | 19.00            |
|                                 |            | 3       | 0         | 18.00                   | 17.83       | 17.87       | 19.00            |
|                                 |            | 3       | 2         | 18.02                   | 18.12       | 17.87       | 19.00            |
|                                 |            | 3       | 3         | 18.13                   | 18.14       | 17.92       | 19.00            |
|                                 |            | 6       | 0         | 18.08                   | 18.11       | 18.00       | 19.00            |
|                                 | 64QAM      | 1       | 0         | 18.07                   | 18.26       | 18.15       | 19.00            |
|                                 |            | 1       | 2         | 18.24                   | 18.14       | 18.09       | 19.00            |
|                                 |            | 1       | 5         | 18.18                   | 18.27       | 18.13       | 19.00            |
|                                 |            | 3       | 0         | 17.92                   | 17.97       | 17.78       | 19.00            |
|                                 |            | 3       | 2         | 17.92                   | 17.88       | 17.85       | 19.00            |
|                                 |            | 3       | 3         | 17.92                   | 17.96       | 18.92       | 19.00            |
|                                 |            | 6       | 0         | 18.12                   | 18.16       | 18.16       | 19.00            |
| Bandwidth                       | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up<br>Limit |
|                                 |            |         |           | 20415/825.5             | 20525/836.5 | 20635/847.5 |                  |
| 3MHz                            | QPSK       | 1       | 0         | 18.14                   | 18.02       | 18.02       | 19.00            |
|                                 |            | 1       | 7         | 18.22                   | 18.14       | 18.10       | 19.00            |
|                                 |            | 1       | 14        | 18.05                   | 18.17       | 18.07       | 19.00            |
|                                 |            | 8       | 0         | 18.19                   | 18.06       | 18.17       | 19.00            |
|                                 |            | 8       | 4         | 18.12                   | 18.13       | 18.17       | 19.00            |
|                                 |            | 8       | 7         | 18.10                   | 18.02       | 18.04       | 19.00            |
|                                 |            | 15      | 0         | 18.00                   | 18.14       | 18.01       | 19.00            |
|                                 | 16QAM      | 1       | 0         | 18.24                   | 18.49       | 18.52       | 19.00            |
|                                 |            | 1       | 7         | 18.56                   | 18.54       | 17.91       | 19.00            |
|                                 |            | 1       | 14        | 18.56                   | 18.43       | 18.72       | 19.00            |
|                                 |            | 8       | 0         | 17.98                   | 17.87       | 17.88       | 19.00            |
|                                 |            | 8       | 4         | 18.01                   | 18.11       | 17.88       | 19.00            |
|                                 |            | 8       | 7         | 18.15                   | 18.18       | 17.91       | 19.00            |
|                                 |            | 15      | 0         | 18.07                   | 18.13       | 18.00       | 19.00            |
|                                 | 64QAM      | 1       | 0         | 18.07                   | 18.25       | 18.16       | 19.00            |
| 1                               |            | 7       | 18.26     | 18.16                   | 18.09       | 19.00       |                  |

|           |            | 1       | 14        | 18.18                   | 18.24       | 18.14       | 19.00         |
|-----------|------------|---------|-----------|-------------------------|-------------|-------------|---------------|
|           |            | 8       | 0         | 17.94                   | 18.01       | 17.77       | 19.00         |
|           |            | 8       | 4         | 17.90                   | 17.89       | 17.84       | 19.00         |
|           |            | 8       | 7         | 17.93                   | 17.97       | 18.95       | 19.00         |
|           |            | 15      | 0         | 18.14                   | 18.19       | 18.17       | 19.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up Limit |
|           |            |         |           | 20425/826.5             | 20525/836.5 | 20625/846.5 |               |
| 5MHz      | QPSK       | 1       | 0         | 18.14                   | 18.00       | 18.01       | 19.00         |
|           |            | 1       | 13        | 18.22                   | 18.14       | 18.09       | 19.00         |
|           |            | 1       | 24        | 18.03                   | 18.14       | 18.04       | 19.00         |
|           |            | 12      | 0         | 18.19                   | 18.03       | 18.16       | 19.00         |
|           |            | 12      | 6         | 18.10                   | 18.10       | 18.14       | 19.00         |
|           |            | 12      | 13        | 18.09                   | 18.03       | 18.01       | 19.00         |
|           |            | 25      | 0         | 18.03                   | 18.11       | 17.99       | 19.00         |
|           | 16QAM      | 1       | 0         | 18.22                   | 18.52       | 18.52       | 19.00         |
|           |            | 1       | 13        | 18.55                   | 18.52       | 17.94       | 19.00         |
|           |            | 1       | 24        | 18.55                   | 18.43       | 18.70       | 19.00         |
|           |            | 12      | 0         | 18.00                   | 17.86       | 17.88       | 19.00         |
|           |            | 12      | 6         | 18.01                   | 18.11       | 17.86       | 19.00         |
|           |            | 12      | 13        | 18.14                   | 18.15       | 17.93       | 19.00         |
|           |            | 25      | 0         | 18.08                   | 18.11       | 18.00       | 19.00         |
|           | 64QAM      | 1       | 0         | 18.04                   | 18.27       | 18.15       | 19.00         |
|           |            | 1       | 13        | 18.25                   | 18.15       | 18.10       | 19.00         |
|           |            | 1       | 24        | 18.18                   | 18.25       | 18.13       | 19.00         |
|           |            | 12      | 0         | 17.92                   | 18.00       | 17.79       | 19.00         |
|           |            | 12      | 6         | 17.91                   | 17.87       | 17.84       | 19.00         |
|           |            | 12      | 13        | 17.93                   | 17.97       | 18.93       | 19.00         |
|           |            | 25      | 0         | 18.12                   | 18.16       | 18.16       | 19.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up Limit |
|           |            |         |           | 20450/829               | 20525/836.5 | 20600/844   |               |
| 10MHz     | QPSK       | 1       | 0         | 18.11                   | 17.96       | 17.98       | 19.00         |
|           |            | 1       | 25        | 18.21                   | 18.10       | 18.07       | 19.00         |
|           |            | 1       | 49        | 18.01                   | 18.13       | 18.01       | 19.00         |
|           |            | 25      | 0         | 18.16                   | 17.98       | 18.12       | 19.00         |
|           |            | 25      | 13        | 18.08                   | 18.06       | 18.11       | 19.00         |
|           |            | 25      | 25        | 18.06                   | 17.98       | 17.97       | 19.00         |
|           |            | 50      | 0         | 18.00                   | 18.06       | 17.95       | 19.00         |
|           | 16QAM      | 1       | 0         | 18.20                   | 18.48       | 18.47       | 19.00         |
|           |            | 1       | 25        | 18.51                   | 18.50       | 17.90       | 19.00         |
|           |            | 1       | 49        | 18.53                   | 18.40       | 18.68       | 19.00         |
|           |            | 25      | 0         | 17.97                   | 17.82       | 17.85       | 19.00         |
|           |            | 25      | 13        | 17.98                   | 18.09       | 17.83       | 19.00         |
|           |            | 25      | 25        | 18.11                   | 18.10       | 17.89       | 19.00         |



|  |       |    |    |       |       |       |       |
|--|-------|----|----|-------|-------|-------|-------|
|  |       | 50 | 0  | 18.06 | 18.07 | 17.97 | 19.00 |
|  | 64QAM | 1  | 0  | 18.02 | 18.23 | 18.10 | 19.00 |
|  |       | 1  | 25 | 18.21 | 18.13 | 18.06 | 19.00 |
|  |       | 1  | 49 | 18.16 | 18.22 | 18.11 | 19.00 |
|  |       | 25 | 0  | 17.89 | 17.96 | 17.76 | 19.00 |
|  |       | 25 | 13 | 17.88 | 17.85 | 17.81 | 19.00 |
|  |       | 25 | 25 | 17.90 | 17.92 | 18.89 | 19.00 |
|  |       | 50 | 0  | 18.10 | 18.12 | 18.13 | 19.00 |

| LTE FDD Band 5<br>(Receiver off) |            |         |           | Conducted Power(dBm)    |             |             | Tune-up<br>Limit |
|----------------------------------|------------|---------|-----------|-------------------------|-------------|-------------|------------------|
| Bandwidth                        | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             |                  |
|                                  |            |         |           | 20407/824.7             | 20525/836.5 | 20643/848.3 |                  |
| 1.4MHz                           | QPSK       | 1       | 0         | 24.23                   | 24.25       | 24.41       | 25.00            |
|                                  |            | 1       | 2         | 24.35                   | 24.35       | 24.33       | 25.00            |
|                                  |            | 1       | 5         | 24.29                   | 24.25       | 24.34       | 25.00            |
|                                  |            | 3       | 0         | 23.32                   | 23.24       | 23.39       | 25.00            |
|                                  |            | 3       | 2         | 23.26                   | 23.21       | 23.31       | 25.00            |
|                                  |            | 3       | 3         | 23.19                   | 23.18       | 23.25       | 25.00            |
|                                  |            | 6       | 0         | 23.28                   | 23.36       | 23.42       | 24.00            |
|                                  | 16QAM      | 1       | 0         | 23.52                   | 23.09       | 23.34       | 24.00            |
|                                  |            | 1       | 2         | 23.38                   | 23.24       | 23.29       | 24.00            |
|                                  |            | 1       | 5         | 23.31                   | 23.23       | 23.29       | 24.00            |
|                                  |            | 3       | 0         | 22.32                   | 22.23       | 22.16       | 24.00            |
|                                  |            | 3       | 2         | 22.30                   | 22.22       | 22.21       | 24.00            |
|                                  |            | 3       | 3         | 22.19                   | 22.18       | 22.19       | 24.00            |
|                                  |            | 6       | 0         | 22.14                   | 22.17       | 22.12       | 24.00            |
|                                  | 64QAM      | 1       | 0         | 22.23                   | 22.12       | 22.20       | 23.00            |
|                                  |            | 1       | 2         | 22.10                   | 22.12       | 22.11       | 23.00            |
|                                  |            | 1       | 5         | 22.05                   | 22.10       | 22.12       | 23.00            |
|                                  |            | 3       | 0         | 21.03                   | 21.06       | 21.05       | 23.00            |
|                                  |            | 3       | 2         | 21.02                   | 20.98       | 21.01       | 23.00            |
|                                  |            | 3       | 3         | 21.48                   | 21.35       | 21.40       | 23.00            |
|                                  |            | 6       | 0         | 21.04                   | 21.08       | 21.02       | 22.00            |
| Bandwidth                        | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up<br>Limit |
|                                  |            |         |           | 20415/825.5             | 20525/836.5 | 20635/847.5 |                  |
| 3MHz                             | QPSK       | 1       | 0         | 24.24                   | 24.24       | 24.43       | 25.00            |
|                                  |            | 1       | 7         | 24.36                   | 24.39       | 24.35       | 25.00            |
|                                  |            | 1       | 14        | 24.30                   | 24.27       | 24.36       | 25.00            |
|                                  |            | 8       | 0         | 23.33                   | 23.28       | 23.41       | 24.00            |
|                                  |            | 8       | 4         | 23.28                   | 23.24       | 23.34       | 24.00            |
|                                  |            | 8       | 7         | 23.19                   | 23.18       | 23.29       | 24.00            |
|                                  |            | 15      | 0         | 23.28                   | 23.37       | 23.43       | 24.00            |

|           | 16QAM      | 1       | 0         | 23.51                   | 23.07       | 23.34       | 24.00         |
|-----------|------------|---------|-----------|-------------------------|-------------|-------------|---------------|
|           |            | 1       | 7         | 23.40                   | 23.27       | 23.27       | 24.00         |
|           |            | 1       | 14        | 23.32                   | 23.21       | 23.31       | 24.00         |
|           |            | 8       | 0         | 22.30                   | 22.27       | 22.17       | 23.00         |
|           |            | 8       | 4         | 22.29                   | 22.21       | 22.22       | 23.00         |
|           |            | 8       | 7         | 22.21                   | 22.22       | 22.18       | 23.00         |
|           |            | 15      | 0         | 22.13                   | 22.19       | 22.12       | 23.00         |
|           | 64QAM      | 1       | 0         | 22.23                   | 22.11       | 22.21       | 23.00         |
|           |            | 1       | 7         | 22.12                   | 22.14       | 22.11       | 23.00         |
|           |            | 1       | 14        | 22.05                   | 22.07       | 22.13       | 23.00         |
|           |            | 8       | 0         | 21.05                   | 21.10       | 21.04       | 22.00         |
|           |            | 8       | 4         | 21.00                   | 20.99       | 21.00       | 22.00         |
|           |            | 8       | 7         | 20.99                   | 20.86       | 20.93       | 22.00         |
|           |            | 15      | 0         | 21.06                   | 21.11       | 21.03       | 22.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up Limit |
|           |            |         |           | 20425/826.5             | 20525/836.5 | 20625/846.5 |               |
| 5MHz      | QPSK       | 1       | 0         | 24.24                   | 24.22       | 24.42       | 25.00         |
|           |            | 1       | 13        | 24.36                   | 24.39       | 24.34       | 25.00         |
|           |            | 1       | 24        | 24.28                   | 24.24       | 24.33       | 25.00         |
|           |            | 12      | 0         | 23.33                   | 23.25       | 23.40       | 24.00         |
|           |            | 12      | 6         | 23.26                   | 23.21       | 23.31       | 24.00         |
|           |            | 12      | 13        | 23.18                   | 23.19       | 23.26       | 24.00         |
|           |            | 25      | 0         | 23.31                   | 23.34       | 23.41       | 24.00         |
|           | 16QAM      | 1       | 0         | 23.49                   | 23.10       | 23.34       | 24.00         |
|           |            | 1       | 13        | 23.39                   | 23.25       | 23.30       | 24.00         |
|           |            | 1       | 24        | 23.31                   | 23.21       | 23.29       | 24.00         |
|           |            | 12      | 0         | 22.32                   | 22.26       | 22.17       | 23.00         |
|           |            | 12      | 6         | 22.29                   | 22.21       | 22.20       | 23.00         |
|           |            | 12      | 13        | 22.20                   | 22.19       | 22.20       | 23.00         |
|           |            | 25      | 0         | 22.14                   | 22.17       | 22.12       | 23.00         |
|           | 64QAM      | 1       | 0         | 22.20                   | 22.13       | 22.20       | 23.00         |
|           |            | 1       | 13        | 22.11                   | 22.13       | 22.12       | 23.00         |
|           |            | 1       | 24        | 22.05                   | 22.08       | 22.12       | 23.00         |
|           |            | 12      | 0         | 21.03                   | 21.09       | 21.06       | 22.00         |
|           |            | 12      | 6         | 21.01                   | 20.97       | 21.00       | 22.00         |
|           |            | 12      | 13        | 20.99                   | 20.86       | 20.91       | 22.00         |
|           |            | 25      | 0         | 21.04                   | 21.08       | 21.02       | 22.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up Limit |
|           |            |         |           | 20450/829               | 20525/836.5 | 20600/844   |               |
| 10MHz     | QPSK       | 1       | 0         | 24.21                   | 24.18       | 24.39       | 25.00         |
|           |            | 1       | 25        | 24.35                   | 24.35       | 24.32       | 25.00         |
|           |            | 1       | 49        | 24.26                   | 24.23       | 24.30       | 25.00         |
|           |            | 25      | 0         | 23.30                   | 23.20       | 23.36       | 24.00         |

|  |       |    |    |       |       |       |       |
|--|-------|----|----|-------|-------|-------|-------|
|  |       | 25 | 13 | 23.24 | 23.17 | 23.28 | 24.00 |
|  |       | 25 | 25 | 23.15 | 23.14 | 23.22 | 24.00 |
|  |       | 50 | 0  | 23.28 | 23.29 | 23.37 | 24.00 |
|  | 16QAM | 1  | 0  | 23.47 | 23.06 | 23.29 | 24.00 |
|  |       | 1  | 25 | 23.35 | 23.23 | 23.26 | 24.00 |
|  |       | 1  | 49 | 23.29 | 23.18 | 23.27 | 24.00 |
|  |       | 25 | 0  | 22.29 | 22.22 | 22.14 | 23.00 |
|  |       | 25 | 13 | 22.26 | 22.19 | 22.17 | 23.00 |
|  |       | 25 | 25 | 22.17 | 22.14 | 22.16 | 23.00 |
|  |       | 50 | 0  | 22.12 | 22.13 | 22.09 | 23.00 |
|  | 64QAM | 1  | 0  | 22.18 | 22.09 | 22.15 | 23.00 |
|  |       | 1  | 25 | 22.07 | 22.11 | 22.08 | 23.00 |
|  |       | 1  | 49 | 22.03 | 22.05 | 22.10 | 23.00 |
|  |       | 25 | 0  | 21.00 | 21.05 | 21.03 | 22.00 |
|  |       | 25 | 13 | 20.98 | 20.95 | 20.97 | 22.00 |
|  |       | 25 | 25 | 20.96 | 20.81 | 20.87 | 22.00 |
|  |       | 50 | 0  | 21.02 | 21.04 | 20.99 | 22.00 |

| LTE FDD Band 7<br>(Receiver on) |            |         |           | Conducted Power(dBm)    |            |              | Tune-up<br>Limit |
|---------------------------------|------------|---------|-----------|-------------------------|------------|--------------|------------------|
| Bandwidth                       | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              |                  |
|                                 |            |         |           | 20775/2502.5            | 21100/2535 | 21425/2567.5 |                  |
| 5MHz                            | QPSK       | 1       | 0         | 15.72                   | 15.87      | 16.01        | 16.50            |
|                                 |            | 1       | 13        | 15.65                   | 15.88      | 15.81        | 16.50            |
|                                 |            | 1       | 24        | 15.89                   | 15.89      | 15.96        | 16.50            |
|                                 |            | 12      | 0         | 15.83                   | 15.77      | 15.90        | 16.50            |
|                                 |            | 12      | 6         | 15.61                   | 15.72      | 15.89        | 16.50            |
|                                 |            | 12      | 13        | 15.78                   | 15.64      | 15.78        | 16.50            |
|                                 |            | 25      | 0         | 15.82                   | 15.86      | 15.94        | 16.50            |
|                                 | 16QAM      | 1       | 0         | 16.10                   | 16.17      | 16.19        | 16.50            |
|                                 |            | 1       | 13        | 16.05                   | 15.95      | 16.15        | 16.50            |
|                                 |            | 1       | 24        | 16.19                   | 16.03      | 15.93        | 16.50            |
|                                 |            | 12      | 0         | 15.39                   | 15.20      | 15.63        | 16.50            |
|                                 |            | 12      | 6         | 15.58                   | 15.01      | 15.17        | 16.50            |
|                                 |            | 12      | 13        | 15.31                   | 14.59      | 15.87        | 16.50            |
|                                 |            | 25      | 0         | 15.49                   | 15.16      | 15.16        | 16.50            |
|                                 | 64QAM      | 1       | 0         | 15.86                   | 16.03      | 16.09        | 16.50            |
|                                 |            | 1       | 13        | 15.93                   | 15.74      | 16.04        | 16.50            |
|                                 |            | 1       | 24        | 15.96                   | 15.25      | 15.69        | 16.50            |
|                                 |            | 12      | 0         | 15.41                   | 14.97      | 15.66        | 16.50            |
|                                 |            | 12      | 6         | 15.54                   | 15.21      | 15.23        | 16.50            |
|                                 |            | 12      | 13        | 15.31                   | 14.89      | 15.89        | 16.50            |
|                                 |            | 25      | 0         | 15.53                   | 15.15      | 15.19        | 16.50            |

| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|-----------|------------|---------|-----------|-------------------------|------------|--------------|---------------|
|           |            |         |           | 20800/2505              | 21100/2535 | 21400/2565   |               |
| 10MHz     | QPSK       | 1       | 0         | 15.73                   | 15.86      | 16.03        | 16.50         |
|           |            | 1       | 25        | 15.66                   | 15.92      | 15.83        | 16.50         |
|           |            | 1       | 49        | 15.90                   | 15.91      | 15.98        | 16.50         |
|           |            | 25      | 0         | 15.84                   | 15.81      | 15.92        | 16.50         |
|           |            | 25      | 13        | 15.63                   | 15.75      | 15.92        | 16.50         |
|           |            | 25      | 25        | 15.78                   | 15.64      | 15.82        | 16.50         |
|           |            | 50      | 0         | 15.82                   | 15.87      | 15.95        | 16.50         |
|           | 16QAM      | 1       | 0         | 16.09                   | 16.15      | 16.19        | 16.50         |
|           |            | 1       | 25        | 16.07                   | 15.98      | 16.13        | 16.50         |
|           |            | 1       | 49        | 16.20                   | 16.01      | 15.95        | 16.50         |
|           |            | 25      | 0         | 15.37                   | 15.24      | 15.64        | 16.50         |
|           |            | 25      | 13        | 15.57                   | 15.00      | 15.18        | 16.50         |
|           |            | 25      | 25        | 15.33                   | 14.63      | 15.86        | 16.50         |
|           |            | 50      | 0         | 15.48                   | 15.18      | 15.16        | 16.50         |
|           | 64QAM      | 1       | 0         | 15.86                   | 16.02      | 16.10        | 16.50         |
|           |            | 1       | 25        | 15.95                   | 15.76      | 16.04        | 16.50         |
|           |            | 1       | 49        | 15.96                   | 15.22      | 15.70        | 16.50         |
|           |            | 25      | 0         | 15.43                   | 15.01      | 15.65        | 16.50         |
|           |            | 25      | 13        | 15.52                   | 15.22      | 15.22        | 16.50         |
|           |            | 25      | 25        | 15.32                   | 14.90      | 15.92        | 16.50         |
|           |            | 50      | 0         | 15.55                   | 15.18      | 15.20        | 16.50         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 20825/2507.5            | 21100/2535 | 21375/2562.5 |               |
| 15MHz     | QPSK       | 1       | 0         | 15.73                   | 15.84      | 16.02        | 16.50         |
|           |            | 1       | 38        | 15.66                   | 15.92      | 15.82        | 16.50         |
|           |            | 1       | 74        | 15.88                   | 15.88      | 15.95        | 16.50         |
|           |            | 36      | 0         | 15.84                   | 15.78      | 15.91        | 16.50         |
|           |            | 36      | 18        | 15.61                   | 15.72      | 15.89        | 16.50         |
|           |            | 36      | 39        | 15.77                   | 15.65      | 15.79        | 16.50         |
|           |            | 75      | 0         | 15.85                   | 15.84      | 15.93        | 16.50         |
|           | 16QAM      | 1       | 0         | 16.07                   | 16.18      | 16.19        | 16.50         |
|           |            | 1       | 38        | 16.06                   | 15.96      | 16.16        | 16.50         |
|           |            | 1       | 74        | 16.19                   | 16.01      | 15.93        | 16.50         |
|           |            | 36      | 0         | 15.39                   | 15.23      | 15.64        | 16.50         |
|           |            | 36      | 18        | 15.57                   | 15.00      | 15.16        | 16.50         |
|           |            | 36      | 39        | 15.32                   | 14.60      | 15.88        | 16.50         |
|           |            | 75      | 0         | 15.49                   | 15.16      | 15.16        | 16.50         |
|           | 64QAM      | 1       | 0         | 15.83                   | 16.04      | 16.09        | 16.50         |
|           |            | 1       | 38        | 15.94                   | 15.75      | 16.05        | 16.50         |
|           |            | 1       | 74        | 15.96                   | 15.23      | 15.69        | 16.50         |
|           |            | 36      | 0         | 15.41                   | 15.00      | 15.67        | 16.50         |

|           |            | 36      | 18        | 15.53                   | 15.20      | 15.22      | 16.50         |
|-----------|------------|---------|-----------|-------------------------|------------|------------|---------------|
|           |            | 36      | 39        | 15.32                   | 14.90      | 15.90      | 16.50         |
|           |            | 75      | 0         | 15.53                   | 15.15      | 15.19      | 16.50         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |            | Tune-up Limit |
|           |            |         |           | 20850/2510              | 21100/2535 | 21350/2560 |               |
| 20MHz     | QPSK       | 1       | 0         | 15.70                   | 15.80      | 15.99      | 16.50         |
|           |            | 1       | 50        | 15.65                   | 15.88      | 15.80      | 16.50         |
|           |            | 1       | 99        | 15.86                   | 15.87      | 15.92      | 16.50         |
|           |            | 50      | 0         | 15.81                   | 15.73      | 15.87      | 16.50         |
|           |            | 50      | 25        | 15.59                   | 15.68      | 15.86      | 16.50         |
|           |            | 50      | 50        | 15.74                   | 15.60      | 15.75      | 16.50         |
|           |            | 100     | 0         | 15.82                   | 15.79      | 15.89      | 16.50         |
|           | 16QAM      | 1       | 0         | 16.05                   | 16.14      | 16.14      | 16.50         |
|           |            | 1       | 50        | 16.02                   | 15.94      | 16.12      | 16.50         |
|           |            | 1       | 99        | 16.17                   | 15.98      | 15.91      | 16.50         |
|           |            | 50      | 0         | 15.36                   | 15.19      | 15.61      | 16.50         |
|           |            | 50      | 25        | 15.54                   | 14.98      | 15.13      | 16.50         |
|           |            | 50      | 50        | 15.29                   | 14.55      | 15.84      | 16.50         |
|           |            | 100     | 0         | 15.47                   | 15.12      | 15.13      | 16.50         |
|           | 64QAM      | 1       | 0         | 15.81                   | 16.00      | 16.04      | 16.50         |
|           |            | 1       | 50        | 15.90                   | 15.73      | 16.01      | 16.50         |
|           |            | 1       | 99        | 15.94                   | 15.20      | 15.67      | 16.50         |
|           |            | 50      | 0         | 15.38                   | 14.96      | 15.64      | 16.50         |
|           |            | 50      | 25        | 15.50                   | 15.18      | 15.19      | 16.50         |
|           |            | 50      | 50        | 15.29                   | 14.85      | 15.86      | 16.50         |
|           |            | 100     | 0         | 15.51                   | 15.11      | 15.16      | 16.50         |

| LTE FDD Band 7<br>(Receiver off) |            |         |           | Conducted Power(dBm)    |            |              | Tune-up<br>Limit |
|----------------------------------|------------|---------|-----------|-------------------------|------------|--------------|------------------|
| Bandwidth                        | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              |                  |
|                                  |            |         |           | 20775/2502.5            | 21100/2535 | 21425/2567.5 |                  |
| 5MHz                             | QPSK       | 1       | 0         | 19.84                   | 20.03      | 20.03        | 20.50            |
|                                  |            | 1       | 13        | 19.81                   | 19.76      | 19.74        | 20.50            |
|                                  |            | 1       | 24        | 20.02                   | 20.14      | 19.91        | 20.50            |
|                                  |            | 12      | 0         | 19.73                   | 19.85      | 19.97        | 20.50            |
|                                  |            | 12      | 6         | 19.90                   | 19.75      | 19.70        | 20.50            |
|                                  |            | 12      | 13        | 19.99                   | 19.96      | 19.78        | 20.50            |
|                                  |            | 25      | 0         | 19.72                   | 19.88      | 19.94        | 20.50            |
|                                  | 16QAM      | 1       | 0         | 20.23                   | 20.24      | 19.97        | 20.50            |
|                                  |            | 1       | 13        | 20.17                   | 20.16      | 20.21        | 20.50            |
|                                  |            | 1       | 24        | 20.17                   | 20.23      | 19.99        | 20.50            |
|                                  |            | 12      | 0         | 19.67                   | 19.81      | 19.94        | 20.50            |
|                                  |            | 12      | 6         | 19.78                   | 19.80      | 19.69        | 20.50            |

|           |            | 12      | 13        | 19.87                   | 19.91      | 19.75        | 20.50         |
|-----------|------------|---------|-----------|-------------------------|------------|--------------|---------------|
|           |            | 25      | 0         | 19.65                   | 19.81      | 19.73        | 20.50         |
|           | 64QAM      | 1       | 0         | 19.98                   | 20.16      | 20.00        | 20.50         |
|           |            | 1       | 13        | 19.94                   | 20.12      | 19.96        | 20.50         |
|           |            | 1       | 24        | 20.00                   | 20.09      | 20.04        | 20.50         |
|           |            | 12      | 0         | 19.67                   | 19.85      | 19.89        | 20.50         |
|           |            | 12      | 6         | 19.80                   | 19.74      | 19.66        | 20.50         |
|           |            | 12      | 13        | 19.88                   | 19.89      | 19.68        | 20.50         |
|           |            | 25      | 0         | 19.70                   | 19.78      | 19.69        | 20.50         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 20800/2505              | 21100/2535 | 21400/2565   |               |
| 10MHz     | QPSK       | 1       | 0         | 19.85                   | 20.02      | 20.05        | 20.50         |
|           |            | 1       | 25        | 19.82                   | 19.80      | 19.76        | 20.50         |
|           |            | 1       | 49        | 20.03                   | 20.16      | 19.93        | 20.50         |
|           |            | 25      | 0         | 19.74                   | 19.89      | 19.99        | 20.50         |
|           |            | 25      | 13        | 19.92                   | 19.78      | 19.73        | 20.50         |
|           |            | 25      | 25        | 19.99                   | 19.96      | 19.82        | 20.50         |
|           |            | 50      | 0         | 19.72                   | 19.89      | 19.95        | 20.50         |
|           | 16QAM      | 1       | 0         | 20.22                   | 20.22      | 19.97        | 20.50         |
|           |            | 1       | 25        | 20.19                   | 20.19      | 20.19        | 20.50         |
|           |            | 1       | 49        | 20.18                   | 20.21      | 20.01        | 20.50         |
|           |            | 25      | 0         | 19.65                   | 19.85      | 19.95        | 20.50         |
|           |            | 25      | 13        | 19.77                   | 19.79      | 19.70        | 20.50         |
|           |            | 25      | 25        | 19.89                   | 19.95      | 19.74        | 20.50         |
|           |            | 50      | 0         | 19.64                   | 19.83      | 19.73        | 20.50         |
|           | 64QAM      | 1       | 0         | 19.98                   | 20.15      | 20.01        | 20.50         |
|           |            | 1       | 25        | 19.96                   | 20.14      | 19.96        | 20.50         |
|           |            | 1       | 49        | 20.00                   | 20.06      | 20.05        | 20.50         |
|           |            | 25      | 0         | 19.69                   | 19.89      | 19.88        | 20.50         |
|           |            | 25      | 13        | 19.78                   | 19.75      | 19.65        | 20.50         |
|           |            | 25      | 25        | 19.89                   | 19.90      | 19.71        | 20.50         |
|           |            | 50      | 0         | 19.72                   | 19.81      | 19.70        | 20.50         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 20825/2507.5            | 21100/2535 | 21375/2562.5 |               |
| 15MHz     | QPSK       | 1       | 0         | 19.85                   | 20.00      | 20.04        | 20.50         |
|           |            | 1       | 38        | 19.82                   | 19.80      | 19.75        | 20.50         |
|           |            | 1       | 74        | 20.01                   | 20.13      | 19.90        | 20.50         |
|           |            | 36      | 0         | 19.74                   | 19.86      | 19.98        | 20.50         |
|           |            | 36      | 18        | 19.90                   | 19.75      | 19.70        | 20.50         |
|           |            | 36      | 39        | 19.98                   | 19.97      | 19.79        | 20.50         |
|           |            | 75      | 0         | 19.75                   | 19.86      | 19.93        | 20.50         |
|           | 16QAM      | 1       | 0         | 20.20                   | 20.25      | 19.97        | 20.50         |
|           |            | 1       | 38        | 20.18                   | 20.17      | 20.22        | 20.50         |

|           |            | 1       | 74        | 20.17                   | 20.21      | 19.99      | 20.50         |
|-----------|------------|---------|-----------|-------------------------|------------|------------|---------------|
|           |            | 36      | 0         | 19.67                   | 19.84      | 19.95      | 20.50         |
|           |            | 36      | 18        | 19.77                   | 19.79      | 19.68      | 20.50         |
|           |            | 36      | 39        | 19.88                   | 19.92      | 19.76      | 20.50         |
|           |            | 75      | 0         | 19.65                   | 19.81      | 19.73      | 20.50         |
|           | 64QAM      | 1       | 0         | 19.95                   | 20.17      | 20.00      | 20.50         |
|           |            | 1       | 38        | 19.95                   | 20.13      | 19.97      | 20.50         |
|           |            | 1       | 74        | 20.00                   | 20.07      | 20.04      | 20.50         |
|           |            | 36      | 0         | 19.67                   | 19.88      | 19.90      | 20.50         |
|           |            | 36      | 18        | 19.79                   | 19.73      | 19.65      | 20.50         |
|           |            | 36      | 39        | 19.89                   | 19.90      | 19.69      | 20.50         |
|           |            | 75      | 0         | 19.70                   | 19.78      | 19.69      | 20.50         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |            | Tune-up Limit |
|           |            |         |           | 20850/2510              | 21100/2535 | 21350/2560 |               |
| 20MHz     | QPSK       | 1       | 0         | 19.82                   | 19.96      | 20.01      | 20.50         |
|           |            | 1       | 50        | 19.81                   | 19.76      | 19.73      | 20.50         |
|           |            | 1       | 99        | 19.99                   | 20.12      | 19.87      | 20.50         |
|           |            | 50      | 0         | 19.71                   | 19.81      | 19.94      | 20.50         |
|           |            | 50      | 25        | 19.88                   | 19.71      | 19.67      | 20.50         |
|           |            | 50      | 50        | 19.95                   | 19.92      | 19.75      | 20.50         |
|           |            | 100     | 0         | 19.72                   | 19.81      | 19.89      | 20.50         |
|           | 16QAM      | 1       | 0         | 20.18                   | 20.21      | 19.92      | 20.50         |
|           |            | 1       | 50        | 20.14                   | 20.15      | 20.18      | 20.50         |
|           |            | 1       | 99        | 20.15                   | 20.18      | 19.97      | 20.50         |
|           |            | 50      | 0         | 19.64                   | 19.80      | 19.92      | 20.50         |
|           |            | 50      | 25        | 19.74                   | 19.77      | 19.65      | 20.50         |
|           |            | 50      | 50        | 19.85                   | 19.87      | 19.72      | 20.50         |
|           |            | 100     | 0         | 19.63                   | 19.77      | 19.70      | 20.50         |
|           | 64QAM      | 1       | 0         | 19.93                   | 20.13      | 19.95      | 20.50         |
|           |            | 1       | 50        | 19.91                   | 20.11      | 19.93      | 20.50         |
|           |            | 1       | 99        | 19.98                   | 20.04      | 20.02      | 20.50         |
|           |            | 50      | 0         | 19.64                   | 19.84      | 19.87      | 20.50         |
|           |            | 50      | 25        | 19.76                   | 19.71      | 19.62      | 20.50         |
|           |            | 50      | 50        | 19.86                   | 19.85      | 19.65      | 20.50         |
|           |            | 100     | 0         | 19.68                   | 19.74      | 19.66      | 20.50         |

| LTE FDD Band 12<br>(Receiver on) |            |         |           | Conducted Power(dBm)    |             |             | Tune-up<br>Limit |
|----------------------------------|------------|---------|-----------|-------------------------|-------------|-------------|------------------|
| Bandwidth                        | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             |                  |
|                                  |            |         |           | 23017/699.7             | 23095/707.5 | 23173/715.3 |                  |
| 1.4MHz                           | QPSK       | 1       | 0         | 20.10                   | 20.34       | 20.14       | 21.00            |
|                                  |            | 1       | 2         | 20.34                   | 20.26       | 20.32       | 21.00            |
|                                  |            | 1       | 5         | 20.26                   | 20.25       | 20.27       | 21.00            |

|           |            | 3       | 0         | 20.16                   | 20.18       | 20.22       | 21.00         |
|-----------|------------|---------|-----------|-------------------------|-------------|-------------|---------------|
|           |            | 3       | 2         | 20.34                   | 20.25       | 20.24       | 21.00         |
|           |            | 3       | 3         | 20.26                   | 20.21       | 20.15       | 21.00         |
|           |            | 6       | 0         | 20.17                   | 20.26       | 20.33       | 21.00         |
|           | 16QAM      | 1       | 0         | 20.49                   | 20.47       | 20.46       | 21.00         |
|           |            | 1       | 2         | 20.62                   | 20.40       | 20.35       | 21.00         |
|           |            | 1       | 5         | 20.50                   | 20.34       | 20.55       | 21.00         |
|           |            | 3       | 0         | 20.10                   | 20.11       | 20.23       | 21.00         |
|           |            | 3       | 2         | 20.23                   | 20.12       | 20.27       | 21.00         |
|           |            | 3       | 3         | 20.30                   | 20.18       | 20.07       | 21.00         |
|           |            | 6       | 0         | 20.24                   | 20.22       | 20.27       | 21.00         |
|           | 64QAM      | 1       | 0         | 20.08                   | 20.13       | 20.16       | 21.00         |
|           |            | 1       | 2         | 20.15                   | 20.08       | 20.09       | 21.00         |
|           |            | 1       | 5         | 20.03                   | 20.08       | 20.06       | 21.00         |
|           |            | 3       | 0         | 20.11                   | 20.16       | 20.13       | 21.00         |
|           |            | 3       | 2         | 20.09                   | 20.13       | 20.18       | 21.00         |
|           |            | 3       | 3         | 20.02                   | 20.02       | 20.05       | 21.00         |
|           |            | 6       | 0         | 20.09                   | 20.33       | 20.20       | 21.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up Limit |
|           |            |         |           | 23025/700.5             | 23095/707.5 | 23165/714.5 |               |
| 3MHz      | QPSK       | 1       | 0         | 20.11                   | 20.33       | 20.16       | 21.00         |
|           |            | 1       | 7         | 20.35                   | 20.30       | 20.34       | 21.00         |
|           |            | 1       | 14        | 20.27                   | 20.27       | 20.29       | 21.00         |
|           |            | 8       | 0         | 20.17                   | 20.22       | 20.24       | 21.00         |
|           |            | 8       | 4         | 20.36                   | 20.28       | 20.27       | 21.00         |
|           |            | 8       | 7         | 20.26                   | 20.21       | 20.19       | 21.00         |
|           |            | 15      | 0         | 20.17                   | 20.27       | 20.34       | 21.00         |
|           | 16QAM      | 1       | 0         | 20.48                   | 20.45       | 20.46       | 21.00         |
|           |            | 1       | 7         | 20.64                   | 20.43       | 20.33       | 21.00         |
|           |            | 1       | 14        | 20.51                   | 20.32       | 20.57       | 21.00         |
|           |            | 8       | 0         | 20.08                   | 20.15       | 20.24       | 21.00         |
|           |            | 8       | 4         | 20.22                   | 20.11       | 20.28       | 21.00         |
|           |            | 8       | 7         | 20.32                   | 20.22       | 20.06       | 21.00         |
|           |            | 15      | 0         | 20.23                   | 20.24       | 20.27       | 21.00         |
|           | 64QAM      | 1       | 0         | 20.08                   | 20.12       | 20.17       | 21.00         |
|           |            | 1       | 7         | 20.17                   | 20.10       | 20.09       | 21.00         |
|           |            | 1       | 14        | 20.03                   | 20.05       | 20.07       | 21.00         |
|           |            | 8       | 0         | 20.13                   | 20.20       | 20.12       | 21.00         |
|           |            | 8       | 4         | 20.07                   | 20.14       | 20.17       | 21.00         |
|           |            | 8       | 7         | 20.03                   | 20.03       | 20.08       | 21.00         |
|           |            | 15      | 0         | 20.11                   | 20.36       | 20.21       | 21.00         |



| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up Limit |
|-----------|------------|---------|-----------|-------------------------|-------------|-------------|---------------|
|           |            |         |           | 23035/701.5             | 23095/707.5 | 23155/713.5 |               |
| 5MHz      | QPSK       | 1       | 0         | 20.11                   | 20.31       | 20.15       | 21.00         |
|           |            | 1       | 13        | 20.35                   | 20.30       | 20.33       | 21.00         |
|           |            | 1       | 24        | 20.25                   | 20.24       | 20.26       | 21.00         |
|           |            | 12      | 0         | 20.17                   | 20.19       | 20.23       | 21.00         |
|           |            | 12      | 6         | 20.34                   | 20.25       | 20.24       | 21.00         |
|           |            | 12      | 13        | 20.25                   | 20.22       | 20.16       | 21.00         |
|           |            | 25      | 0         | 20.20                   | 20.24       | 20.32       | 21.00         |
|           | 16QAM      | 1       | 0         | 20.46                   | 20.48       | 20.46       | 21.00         |
|           |            | 1       | 13        | 20.63                   | 20.41       | 20.36       | 21.00         |
|           |            | 1       | 24        | 20.50                   | 20.32       | 20.55       | 21.00         |
|           |            | 12      | 0         | 20.10                   | 20.14       | 20.24       | 21.00         |
|           |            | 12      | 6         | 20.22                   | 20.11       | 20.26       | 21.00         |
|           |            | 12      | 13        | 20.31                   | 20.19       | 20.08       | 21.00         |
|           |            | 25      | 0         | 20.24                   | 20.22       | 20.27       | 21.00         |
|           | 64QAM      | 1       | 0         | 20.05                   | 20.14       | 20.16       | 21.00         |
|           |            | 1       | 13        | 20.16                   | 20.09       | 20.10       | 21.00         |
|           |            | 1       | 24        | 20.03                   | 20.06       | 20.06       | 21.00         |
|           |            | 12      | 0         | 20.11                   | 20.19       | 20.14       | 21.00         |
|           |            | 12      | 6         | 20.08                   | 20.12       | 20.17       | 21.00         |
|           |            | 12      | 13        | 20.03                   | 20.03       | 20.06       | 21.00         |
|           |            | 25      | 0         | 20.09                   | 20.33       | 20.20       | 21.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up Limit |
|           |            |         |           | 23060/704               | 23095/707.5 | 23130/711   |               |
| 10MHz     | QPSK       | 1       | 0         | 20.08                   | 20.27       | 20.12       | 21.00         |
|           |            | 1       | 25        | 20.34                   | 20.26       | 20.31       | 21.00         |
|           |            | 1       | 49        | 20.23                   | 20.23       | 20.23       | 21.00         |
|           |            | 25      | 0         | 20.14                   | 20.14       | 20.19       | 21.00         |
|           |            | 25      | 13        | 20.32                   | 20.21       | 20.21       | 21.00         |
|           |            | 25      | 25        | 20.22                   | 20.17       | 20.12       | 21.00         |
|           |            | 50      | 0         | 20.17                   | 20.19       | 20.28       | 21.00         |
|           | 16QAM      | 1       | 0         | 20.44                   | 20.44       | 20.41       | 21.00         |
|           |            | 1       | 25        | 20.59                   | 20.39       | 20.32       | 21.00         |
|           |            | 1       | 49        | 20.48                   | 20.29       | 20.53       | 21.00         |
|           |            | 25      | 0         | 20.07                   | 20.10       | 20.21       | 21.00         |
|           |            | 25      | 13        | 20.19                   | 20.09       | 20.23       | 21.00         |
|           |            | 25      | 25        | 20.28                   | 20.14       | 20.04       | 21.00         |
|           |            | 50      | 0         | 20.22                   | 20.18       | 20.24       | 21.00         |
|           | 64QAM      | 1       | 0         | 20.03                   | 20.10       | 20.11       | 21.00         |
|           |            | 1       | 25        | 20.12                   | 20.07       | 20.06       | 21.00         |
|           |            | 1       | 49        | 20.01                   | 20.03       | 20.04       | 21.00         |
|           |            | 25      | 0         | 20.08                   | 20.15       | 20.11       | 21.00         |

|  |  |    |    |       |       |       |       |
|--|--|----|----|-------|-------|-------|-------|
|  |  | 25 | 13 | 20.05 | 20.10 | 20.14 | 21.00 |
|  |  | 25 | 25 | 20.00 | 19.98 | 20.02 | 21.00 |
|  |  | 50 | 0  | 20.07 | 20.29 | 20.17 | 21.00 |

| LTE FDD Band 12<br>(Receiver off) |            |         |           | Conducted Power(dBm)    |             |             | Tune-up<br>Limit |
|-----------------------------------|------------|---------|-----------|-------------------------|-------------|-------------|------------------|
| Bandwidth                         | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             |                  |
|                                   |            |         |           | 23017/699.7             | 23095/707.5 | 23173/715.3 |                  |
| 1.4MHz                            | QPSK       | 1       | 0         | 24.48                   | 24.54       | 24.50       | 25.00            |
|                                   |            | 1       | 2         | 24.53                   | 24.60       | 24.63       | 25.00            |
|                                   |            | 1       | 5         | 24.56                   | 24.55       | 24.60       | 25.00            |
|                                   |            | 3       | 0         | 23.48                   | 23.61       | 23.50       | 25.00            |
|                                   |            | 3       | 2         | 23.49                   | 23.48       | 23.44       | 25.00            |
|                                   |            | 3       | 3         | 23.57                   | 23.43       | 23.42       | 25.00            |
|                                   |            | 6       | 0         | 23.49                   | 23.58       | 23.52       | 24.00            |
|                                   | 16QAM      | 1       | 0         | 23.86                   | 23.60       | 23.60       | 24.00            |
|                                   |            | 1       | 2         | 23.65                   | 23.60       | 23.49       | 24.00            |
|                                   |            | 1       | 5         | 23.54                   | 23.66       | 23.41       | 24.00            |
|                                   |            | 3       | 0         | 22.47                   | 22.56       | 22.50       | 24.00            |
|                                   |            | 3       | 2         | 22.47                   | 22.48       | 22.46       | 24.00            |
|                                   |            | 3       | 3         | 22.45                   | 22.52       | 22.45       | 24.00            |
|                                   |            | 6       | 0         | 22.36                   | 22.44       | 22.44       | 23.00            |
|                                   | 64QAM      | 1       | 0         | 22.56                   | 22.62       | 22.65       | 23.00            |
|                                   |            | 1       | 2         | 22.64                   | 22.60       | 22.64       | 23.00            |
|                                   |            | 1       | 5         | 22.53                   | 22.57       | 22.61       | 23.00            |
|                                   |            | 3       | 0         | 21.53                   | 21.59       | 21.57       | 23.00            |
|                                   |            | 3       | 2         | 21.49                   | 21.50       | 21.52       | 23.00            |
|                                   |            | 3       | 3         | 21.54                   | 21.55       | 21.48       | 23.00            |
|                                   |            | 6       | 0         | 21.61                   | 21.64       | 21.63       | 22.00            |
| Bandwidth                         | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up<br>Limit |
|                                   |            |         |           | 23025/700.5             | 23095/707.5 | 23165/714.5 |                  |
| 3MHz                              | QPSK       | 1       | 0         | 24.50                   | 24.58       | 24.53       | 25.00            |
|                                   |            | 1       | 7         | 24.53                   | 24.62       | 24.67       | 25.00            |
|                                   |            | 1       | 14        | 24.59                   | 24.60       | 24.64       | 25.00            |
|                                   |            | 8       | 0         | 23.52                   | 23.68       | 23.57       | 24.00            |
|                                   |            | 8       | 4         | 23.52                   | 23.56       | 23.50       | 24.00            |
|                                   |            | 8       | 7         | 23.61                   | 23.48       | 23.46       | 24.00            |
|                                   |            | 15      | 0         | 23.51                   | 23.62       | 23.55       | 24.00            |
|                                   | 16QAM      | 1       | 0         | 23.89                   | 23.62       | 23.63       | 24.00            |
|                                   |            | 1       | 7         | 23.68                   | 23.62       | 23.53       | 24.00            |
|                                   |            | 1       | 14        | 23.56                   | 23.70       | 23.44       | 24.00            |
|                                   |            | 8       | 0         | 22.52                   | 22.60       | 22.53       | 23.00            |
|                                   |            | 8       | 4         | 22.52                   | 22.55       | 22.52       | 23.00            |

|           |            | 8       | 7         | 22.49                   | 22.58       | 22.52       | 23.00         |
|-----------|------------|---------|-----------|-------------------------|-------------|-------------|---------------|
|           |            | 15      | 0         | 22.39                   | 22.48       | 22.47       | 23.00         |
|           | 64QAM      | 1       | 0         | 22.59                   | 22.64       | 22.68       | 23.00         |
|           |            | 1       | 7         | 22.67                   | 22.62       | 22.68       | 23.00         |
|           |            | 1       | 14        | 22.55                   | 22.61       | 22.64       | 23.00         |
|           |            | 8       | 0         | 21.58                   | 21.63       | 21.60       | 22.00         |
|           |            | 8       | 4         | 21.54                   | 21.57       | 21.58       | 22.00         |
|           |            | 8       | 7         | 21.58                   | 21.61       | 21.55       | 22.00         |
|           |            | 15      | 0         | 21.63                   | 21.70       | 21.68       | 22.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up Limit |
|           |            |         |           | 23035/701.5             | 23095/707.5 | 23155/713.5 |               |
| 5MHz      | QPSK       | 1       | 0         | 24.48                   | 24.53       | 24.50       | 25.00         |
|           |            | 1       | 13        | 24.52                   | 24.62       | 24.65       | 25.00         |
|           |            | 1       | 24        | 24.55                   | 24.54       | 24.59       | 25.00         |
|           |            | 12      | 0         | 23.50                   | 23.64       | 23.54       | 24.00         |
|           |            | 12      | 6         | 23.50                   | 23.52       | 23.45       | 24.00         |
|           |            | 12      | 13        | 23.58                   | 23.47       | 23.43       | 24.00         |
|           |            | 25      | 0         | 23.52                   | 23.59       | 23.52       | 24.00         |
|           | 16QAM      | 1       | 0         | 23.83                   | 23.59       | 23.60       | 24.00         |
|           |            | 1       | 13        | 23.66                   | 23.61       | 23.51       | 24.00         |
|           |            | 1       | 24        | 23.53                   | 23.66       | 23.40       | 24.00         |
|           |            | 12      | 0         | 22.50                   | 22.59       | 22.51       | 23.00         |
|           |            | 12      | 6         | 22.48                   | 22.49       | 22.47       | 23.00         |
|           |            | 12      | 13        | 22.47                   | 22.54       | 22.49       | 23.00         |
|           |            | 25      | 0         | 22.37                   | 22.44       | 22.42       | 23.00         |
|           | 64QAM      | 1       | 0         | 22.53                   | 22.61       | 22.65       | 23.00         |
|           |            | 1       | 13        | 22.65                   | 22.61       | 22.66       | 23.00         |
|           |            | 1       | 24        | 22.52                   | 22.57       | 22.60       | 23.00         |
|           |            | 12      | 0         | 21.56                   | 21.62       | 21.58       | 22.00         |
|           |            | 12      | 6         | 21.50                   | 21.51       | 21.53       | 22.00         |
|           |            | 12      | 13        | 21.56                   | 21.57       | 21.52       | 22.00         |
|           |            | 25      | 0         | 21.61                   | 21.66       | 21.63       | 22.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up Limit |
|           |            |         |           | 23060/704               | 23095/707.5 | 23130/711   |               |
| 10MHz     | QPSK       | 1       | 0         | 24.45                   | 24.49       | 24.47       | 25.00         |
|           |            | 1       | 25        | 24.51                   | 24.58       | 24.63       | 25.00         |
|           |            | 1       | 49        | 24.53                   | 24.53       | 24.56       | 25.00         |
|           |            | 25      | 0         | 23.47                   | 23.59       | 23.50       | 24.00         |
|           |            | 25      | 13        | 23.48                   | 23.48       | 23.42       | 24.00         |
|           |            | 25      | 25        | 23.55                   | 23.42       | 23.39       | 24.00         |
|           |            | 50      | 0         | 23.49                   | 23.54       | 23.48       | 24.00         |
|           | 16QAM      | 1       | 0         | 23.81                   | 23.55       | 23.55       | 24.00         |
|           |            | 1       | 25        | 23.62                   | 23.59       | 23.47       | 24.00         |

|  |       |    |    |       |       |       |       |
|--|-------|----|----|-------|-------|-------|-------|
|  |       | 1  | 49 | 23.51 | 23.63 | 23.38 | 24.00 |
|  |       | 25 | 0  | 22.47 | 22.55 | 22.48 | 23.00 |
|  |       | 25 | 13 | 22.45 | 22.47 | 22.44 | 23.00 |
|  |       | 25 | 25 | 22.44 | 22.49 | 22.45 | 23.00 |
|  |       | 50 | 0  | 22.35 | 22.40 | 22.39 | 23.00 |
|  | 64QAM | 1  | 0  | 22.51 | 22.57 | 22.60 | 23.00 |
|  |       | 1  | 25 | 22.61 | 22.59 | 22.62 | 23.00 |
|  |       | 1  | 49 | 22.50 | 22.54 | 22.58 | 23.00 |
|  |       | 25 | 0  | 21.53 | 21.58 | 21.55 | 22.00 |
|  |       | 25 | 13 | 21.47 | 21.49 | 21.50 | 22.00 |
|  |       | 25 | 25 | 21.53 | 21.52 | 21.48 | 22.00 |
|  |       | 50 | 0  | 21.59 | 21.62 | 21.60 | 22.00 |

| LTE FDD Band 17<br>(Receiver on) |            |         |           | Conducted Power(dBm)    |           |             | Tune-up<br>Limit |
|----------------------------------|------------|---------|-----------|-------------------------|-----------|-------------|------------------|
| Bandwidth                        | Modulation | RB size | RB offset | Channel/Frequency (MHz) |           |             |                  |
|                                  |            |         |           | 23755/706.5             | 23790/710 | 23825/713.5 |                  |
| 5MHz                             | QPSK       | 1       | 0         | 20.08                   | 20.40     | 20.17       | 21.00            |
|                                  |            | 1       | 13        | 20.31                   | 20.42     | 20.31       | 21.00            |
|                                  |            | 1       | 24        | 20.25                   | 20.28     | 20.25       | 21.00            |
|                                  |            | 12      | 0         | 20.14                   | 20.15     | 20.16       | 21.00            |
|                                  |            | 12      | 6         | 20.17                   | 20.26     | 20.21       | 21.00            |
|                                  |            | 12      | 13        | 20.10                   | 20.22     | 20.34       | 21.00            |
|                                  |            | 25      | 0         | 20.13                   | 20.21     | 20.17       | 21.00            |
|                                  | 16QAM      | 1       | 0         | 20.44                   | 20.77     | 20.50       | 21.00            |
|                                  |            | 1       | 13        | 20.55                   | 20.70     | 20.61       | 21.00            |
|                                  |            | 1       | 24        | 20.64                   | 20.68     | 20.55       | 21.00            |
|                                  |            | 12      | 0         | 20.16                   | 20.23     | 20.24       | 21.00            |
|                                  |            | 12      | 6         | 20.26                   | 20.18     | 20.11       | 21.00            |
|                                  |            | 12      | 13        | 20.08                   | 20.13     | 20.20       | 21.00            |
|                                  |            | 25      | 0         | 20.17                   | 20.11     | 20.14       | 21.00            |
|                                  | 64QAM      | 1       | 0         | 20.14                   | 20.07     | 20.15       | 21.00            |
|                                  |            | 1       | 13        | 20.04                   | 20.07     | 20.20       | 21.00            |
|                                  |            | 1       | 24        | 20.20                   | 20.04     | 20.22       | 21.00            |
|                                  |            | 12      | 0         | 20.01                   | 20.07     | 20.16       | 21.00            |
|                                  |            | 12      | 6         | 20.05                   | 20.08     | 20.14       | 21.00            |
|                                  |            | 12      | 13        | 20.10                   | 20.15     | 20.25       | 21.00            |
|                                  |            | 25      | 0         | 20.17                   | 20.20     | 20.22       | 21.00            |
| Bandwidth                        | Modulation | RB size | RB offset | Channel/Frequency (MHz) |           |             | Tune-up<br>Limit |
|                                  |            |         |           | 23780/709               | 23790/710 | 23800/711   |                  |
| 10MHz                            | QPSK       | 1       | 0         | 20.05                   | 20.36     | 20.14       | 21.00            |
|                                  |            | 1       | 25        | 20.30                   | 20.38     | 20.29       | 21.00            |
|                                  |            | 1       | 49        | 20.23                   | 20.27     | 20.22       | 21.00            |

|  |       |    |    |       |       |       |       |
|--|-------|----|----|-------|-------|-------|-------|
|  |       | 25 | 0  | 20.11 | 20.10 | 20.12 | 21.00 |
|  |       | 25 | 13 | 20.15 | 20.22 | 20.18 | 21.00 |
|  |       | 25 | 25 | 20.07 | 20.17 | 20.30 | 21.00 |
|  |       | 50 | 0  | 20.10 | 20.16 | 20.13 | 21.00 |
|  | 16QAM | 1  | 0  | 20.42 | 20.73 | 20.45 | 21.00 |
|  |       | 1  | 25 | 20.51 | 20.68 | 20.57 | 21.00 |
|  |       | 1  | 49 | 20.62 | 20.65 | 20.53 | 21.00 |
|  |       | 25 | 0  | 20.13 | 20.19 | 20.21 | 21.00 |
|  |       | 25 | 13 | 20.23 | 20.16 | 20.08 | 21.00 |
|  |       | 25 | 25 | 20.05 | 20.08 | 20.16 | 21.00 |
|  |       | 50 | 0  | 20.15 | 20.07 | 20.11 | 21.00 |
|  | 64QAM | 1  | 0  | 20.12 | 20.03 | 20.10 | 21.00 |
|  |       | 1  | 25 | 20.00 | 20.05 | 20.16 | 21.00 |
|  |       | 1  | 49 | 20.18 | 20.01 | 20.20 | 21.00 |
|  |       | 25 | 0  | 19.98 | 20.03 | 20.13 | 21.00 |
|  |       | 25 | 13 | 20.02 | 20.06 | 20.11 | 21.00 |
|  |       | 25 | 25 | 20.07 | 20.10 | 20.21 | 21.00 |
|  |       | 50 | 0  | 20.15 | 20.16 | 20.19 | 21.00 |

| LTE FDD Band 17<br>(Receiver off) |            |         |           | Conducted Power(dBm)    |           |             | Tune-up<br>Limit |
|-----------------------------------|------------|---------|-----------|-------------------------|-----------|-------------|------------------|
| Bandwidth                         | Modulation | RB size | RB offset | Channel/Frequency (MHz) |           |             |                  |
|                                   |            |         |           | 23755/706.5             | 23790/710 | 23825/713.5 |                  |
| 5MHz                              | QPSK       | 1       | 0         | 24.45                   | 24.61     | 24.44       | 25.00            |
|                                   |            | 1       | 13        | 24.60                   | 24.48     | 24.55       | 25.00            |
|                                   |            | 1       | 24        | 24.52                   | 24.52     | 24.54       | 25.00            |
|                                   |            | 12      | 0         | 23.49                   | 23.53     | 23.50       | 24.00            |
|                                   |            | 12      | 6         | 23.50                   | 23.51     | 23.45       | 24.00            |
|                                   |            | 12      | 13        | 23.58                   | 23.52     | 23.48       | 24.00            |
|                                   |            | 25      | 0         | 23.44                   | 23.52     | 23.51       | 24.00            |
|                                   | 16QAM      | 1       | 0         | 23.66                   | 23.86     | 23.43       | 24.00            |
|                                   |            | 1       | 13        | 23.66                   | 23.82     | 23.42       | 24.00            |
|                                   |            | 1       | 24        | 23.52                   | 23.72     | 23.47       | 24.00            |
|                                   |            | 12      | 0         | 22.44                   | 22.47     | 22.61       | 23.00            |
|                                   |            | 12      | 6         | 22.87                   | 22.48     | 22.57       | 23.00            |
|                                   |            | 12      | 13        | 22.90                   | 22.51     | 22.55       | 23.00            |
|                                   |            | 25      | 0         | 22.41                   | 22.50     | 22.43       | 23.00            |
|                                   | 64QAM      | 1       | 0         | 22.39                   | 22.43     | 22.50       | 23.00            |
|                                   |            | 1       | 13        | 22.39                   | 22.42     | 22.41       | 23.00            |
|                                   |            | 1       | 24        | 22.44                   | 22.50     | 22.41       | 23.00            |
|                                   |            | 12      | 0         | 21.64                   | 21.48     | 21.42       | 22.00            |
|                                   |            | 12      | 6         | 21.54                   | 21.58     | 21.64       | 22.00            |
|                                   |            | 12      | 13        | 21.51                   | 21.51     | 21.55       | 22.00            |

|           |            | 25      | 0         | 21.63                   | 21.69     | 21.65     | 22.00         |
|-----------|------------|---------|-----------|-------------------------|-----------|-----------|---------------|
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |           |           | Tune-up Limit |
|           |            |         |           | 23780/709               | 23790/710 | 23800/711 |               |
| 10MHz     | QPSK       | 1       | 0         | 24.43                   | 24.54     | 24.42     | 25.00         |
|           |            | 1       | 25        | 24.60                   | 24.48     | 24.54     | 25.00         |
|           |            | 1       | 49        | 24.49                   | 24.50     | 24.50     | 25.00         |
|           |            | 25      | 0         | 23.47                   | 23.49     | 23.47     | 24.00         |
|           |            | 25      | 13        | 23.48                   | 23.47     | 23.42     | 24.00         |
|           |            | 25      | 25        | 23.54                   | 23.48     | 23.45     | 24.00         |
|           |            | 50      | 0         | 23.44                   | 23.45     | 23.46     | 24.00         |
|           | 16QAM      | 1       | 0         | 23.61                   | 23.83     | 23.38     | 24.00         |
|           |            | 1       | 25        | 23.63                   | 23.81     | 23.39     | 24.00         |
|           |            | 1       | 49        | 23.50                   | 23.67     | 23.45     | 24.00         |
|           |            | 25      | 0         | 22.41                   | 22.46     | 22.59     | 23.00         |
|           |            | 25      | 13        | 22.83                   | 22.45     | 22.53     | 23.00         |
|           |            | 25      | 25        | 22.88                   | 22.47     | 22.52     | 23.00         |
|           |            | 50      | 0         | 22.39                   | 22.46     | 22.40     | 23.00         |
|           | 64QAM      | 1       | 0         | 22.34                   | 22.40     | 22.45     | 23.00         |
|           |            | 1       | 25        | 22.36                   | 22.41     | 22.38     | 23.00         |
|           |            | 1       | 49        | 22.42                   | 22.45     | 22.39     | 23.00         |
|           |            | 25      | 0         | 21.61                   | 21.47     | 21.40     | 22.00         |
|           |            | 25      | 13        | 21.50                   | 21.55     | 21.60     | 22.00         |
|           |            | 25      | 25        | 21.49                   | 21.47     | 21.52     | 22.00         |
|           |            | 50      | 0         | 21.61                   | 21.65     | 21.62     | 22.00         |

| LTE FDD Band 26<br>(Receiver on) |            |         |           | Conducted Power(dBm)    |             |             | Tune-up<br>Limit |
|----------------------------------|------------|---------|-----------|-------------------------|-------------|-------------|------------------|
| Bandwidth                        | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             |                  |
|                                  |            |         |           | 26697/814.7             | 26865/831.5 | 27033/848.3 |                  |
| 1.4MHz                           | QPSK       | 1       | 0         | 19.13                   | 19.18       | 19.21       | 20.00            |
|                                  |            | 1       | 2         | 19.16                   | 19.19       | 19.23       | 20.00            |
|                                  |            | 1       | 5         | 19.10                   | 19.10       | 19.01       | 20.00            |
|                                  |            | 3       | 0         | 19.16                   | 19.21       | 19.03       | 20.00            |
|                                  |            | 3       | 2         | 19.07                   | 19.12       | 18.95       | 20.00            |
|                                  |            | 3       | 3         | 18.15                   | 19.15       | 19.24       | 20.00            |
|                                  |            | 6       | 0         | 19.04                   | 19.12       | 19.00       | 20.00            |
|                                  | 16QAM      | 1       | 0         | 19.37                   | 19.20       | 19.49       | 20.00            |
|                                  |            | 1       | 2         | 19.38                   | 19.67       | 19.49       | 20.00            |
|                                  |            | 1       | 5         | 19.44                   | 19.28       | 19.33       | 20.00            |
|                                  |            | 3       | 0         | 19.03                   | 19.09       | 18.99       | 20.00            |
|                                  |            | 3       | 2         | 19.00                   | 18.95       | 19.09       | 20.00            |
|                                  |            | 3       | 3         | 19.08                   | 19.02       | 18.91       | 20.00            |
|                                  |            | 6       | 0         | 19.04                   | 18.88       | 19.11       | 20.00            |

|           | 64QAM      | 1       | 0         | 19.15                   | 19.12       | 19.10       | 20.00         |
|-----------|------------|---------|-----------|-------------------------|-------------|-------------|---------------|
|           |            | 1       | 2         | 18.88                   | 18.80       | 19.01       | 20.00         |
|           |            | 1       | 5         | 19.39                   | 19.65       | 19.27       | 20.00         |
|           |            | 3       | 0         | 19.22                   | 19.13       | 19.06       | 20.00         |
|           |            | 3       | 2         | 19.25                   | 19.14       | 19.27       | 20.00         |
|           |            | 3       | 3         | 19.22                   | 19.29       | 19.23       | 20.00         |
|           |            | 6       | 0         | 19.34                   | 19.36       | 19.19       | 20.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up Limit |
|           |            |         |           | 26705/815.5             | 26865/831.5 | 27025/847.5 |               |
| 3MHz      | QPSK       | 1       | 0         | 19.15                   | 19.22       | 19.24       | 20.00         |
|           |            | 1       | 7         | 19.16                   | 19.21       | 19.27       | 20.00         |
|           |            | 1       | 14        | 19.13                   | 19.15       | 19.05       | 20.00         |
|           |            | 8       | 0         | 19.20                   | 19.28       | 19.10       | 20.00         |
|           |            | 8       | 4         | 19.10                   | 19.20       | 19.01       | 20.00         |
|           |            | 8       | 7         | 18.19                   | 19.20       | 19.28       | 20.00         |
|           |            | 15      | 0         | 19.06                   | 19.16       | 19.03       | 20.00         |
|           | 16QAM      | 1       | 0         | 19.40                   | 19.22       | 19.52       | 20.00         |
|           |            | 1       | 7         | 19.41                   | 19.69       | 19.53       | 20.00         |
|           |            | 1       | 14        | 19.46                   | 19.32       | 19.36       | 20.00         |
|           |            | 8       | 0         | 19.08                   | 19.13       | 19.02       | 20.00         |
|           |            | 8       | 4         | 19.05                   | 19.02       | 19.15       | 20.00         |
|           |            | 8       | 7         | 19.12                   | 19.08       | 18.98       | 20.00         |
|           |            | 15      | 0         | 19.07                   | 18.92       | 19.14       | 20.00         |
|           | 64QAM      | 1       | 0         | 19.18                   | 19.14       | 19.13       | 20.00         |
|           |            | 1       | 7         | 18.91                   | 18.82       | 19.05       | 20.00         |
|           |            | 1       | 14        | 19.41                   | 19.69       | 19.30       | 20.00         |
|           |            | 8       | 0         | 19.27                   | 19.17       | 19.09       | 20.00         |
|           |            | 8       | 4         | 19.30                   | 19.21       | 19.33       | 20.00         |
|           |            | 8       | 7         | 19.26                   | 19.35       | 19.30       | 20.00         |
|           |            | 15      | 0         | 19.36                   | 19.42       | 19.24       | 20.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up Limit |
|           |            |         |           | 26715/816.5             | 26865/831.5 | 27015/846.5 |               |
| 5MHz      | QPSK       | 1       | 0         | 19.12                   | 19.20       | 19.20       | 20.00         |
|           |            | 1       | 13        | 19.14                   | 19.17       | 19.24       | 20.00         |
|           |            | 1       | 24        | 19.10                   | 19.10       | 19.01       | 20.00         |
|           |            | 12      | 0         | 19.17                   | 19.23       | 19.06       | 20.00         |
|           |            | 12      | 6         | 19.08                   | 19.16       | 18.96       | 20.00         |
|           |            | 12      | 13        | 18.17                   | 19.18       | 19.24       | 20.00         |
|           |            | 25      | 0         | 19.04                   | 19.15       | 19.01       | 20.00         |
|           | 16QAM      | 1       | 0         | 19.37                   | 19.18       | 19.49       | 20.00         |
|           |            | 1       | 13        | 19.38                   | 19.67       | 19.50       | 20.00         |
|           |            | 1       | 24        | 19.43                   | 19.30       | 19.32       | 20.00         |
|           |            | 12      | 0         | 19.06                   | 19.09       | 18.99       | 20.00         |

|           |            | 12      | 6         | 19.02                   | 18.97       | 19.11       | 20.00         |
|-----------|------------|---------|-----------|-------------------------|-------------|-------------|---------------|
|           |            | 12      | 13        | 19.09                   | 19.03       | 18.94       | 20.00         |
|           |            | 25      | 0         | 19.05                   | 18.88       | 19.09       | 20.00         |
|           | 64QAM      | 1       | 0         | 19.15                   | 19.10       | 19.10       | 20.00         |
|           |            | 1       | 13        | 18.88                   | 18.80       | 19.02       | 20.00         |
|           |            | 1       | 24        | 19.38                   | 19.67       | 19.26       | 20.00         |
|           |            | 12      | 0         | 19.25                   | 19.13       | 19.06       | 20.00         |
|           |            | 12      | 6         | 19.27                   | 19.16       | 19.29       | 20.00         |
|           |            | 12      | 13        | 19.23                   | 19.30       | 19.26       | 20.00         |
|           |            | 25      | 0         | 19.34                   | 19.38       | 19.19       | 20.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up Limit |
|           |            |         |           | 26750/820               | 26865/831.5 | 26990/844   |               |
| 10MHz     | QPSK       | 1       | 0         | 19.13                   | 19.19       | 19.22       | 20.00         |
|           |            | 1       | 25        | 19.15                   | 19.21       | 19.26       | 20.00         |
|           |            | 1       | 49        | 19.11                   | 19.12       | 19.03       | 20.00         |
|           |            | 25      | 0         | 19.18                   | 19.27       | 19.08       | 20.00         |
|           |            | 25      | 13        | 19.10                   | 19.19       | 18.99       | 20.00         |
|           |            | 25      | 25        | 18.17                   | 19.18       | 19.28       | 20.00         |
|           |            | 50      | 0         | 19.04                   | 19.16       | 19.02       | 20.00         |
|           | 16QAM      | 1       | 0         | 19.36                   | 19.16       | 19.49       | 20.00         |
|           |            | 1       | 25        | 19.40                   | 19.70       | 19.48       | 20.00         |
|           |            | 1       | 49        | 19.44                   | 19.28       | 19.34       | 20.00         |
|           |            | 25      | 0         | 19.04                   | 19.13       | 19.00       | 20.00         |
|           |            | 25      | 13        | 19.01                   | 18.96       | 19.12       | 20.00         |
|           |            | 25      | 25        | 19.11                   | 19.07       | 18.93       | 20.00         |
|           |            | 50      | 0         | 19.04                   | 18.90       | 19.09       | 20.00         |
|           | 64QAM      | 1       | 0         | 19.15                   | 19.09       | 19.11       | 20.00         |
|           |            | 1       | 25        | 18.90                   | 18.82       | 19.02       | 20.00         |
|           |            | 1       | 49        | 19.38                   | 19.64       | 19.27       | 20.00         |
|           |            | 25      | 0         | 19.27                   | 19.17       | 19.05       | 20.00         |
|           |            | 25      | 13        | 19.25                   | 19.17       | 19.28       | 20.00         |
|           |            | 25      | 25        | 19.24                   | 19.31       | 19.29       | 20.00         |
|           |            | 50      | 0         | 19.36                   | 19.41       | 19.20       | 20.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up Limit |
|           |            |         |           | 26775/822.5             | 26865/831.5 | 26965/841.5 |               |
| 15MHz     | QPSK       | 1       | 0         | 19.10                   | 19.13       | 19.18       | 20.00         |
|           |            | 1       | 38        | 19.14                   | 19.17       | 19.23       | 20.00         |
|           |            | 1       | 74        | 19.07                   | 19.08       | 18.97       | 20.00         |
|           |            | 36      | 0         | 19.15                   | 19.19       | 19.03       | 20.00         |
|           |            | 36      | 18        | 19.06                   | 19.12       | 18.93       | 20.00         |
|           |            | 36      | 39        | 18.13                   | 19.14       | 19.21       | 20.00         |
|           |            | 75      | 0         | 19.04                   | 19.08       | 18.96       | 20.00         |
|           | 16QAM      | 1       | 0         | 19.32                   | 19.15       | 19.44       | 20.00         |



|  |       |    |    |       |       |       |       |
|--|-------|----|----|-------|-------|-------|-------|
|  |       | 1  | 38 | 19.35 | 19.66 | 19.47 | 20.00 |
|  |       | 1  | 74 | 19.41 | 19.25 | 19.30 | 20.00 |
|  |       | 36 | 0  | 19.03 | 19.08 | 18.97 | 20.00 |
|  |       | 36 | 18 | 18.98 | 18.94 | 19.07 | 20.00 |
|  |       | 36 | 39 | 19.07 | 18.99 | 18.91 | 20.00 |
|  |       | 75 | 0  | 19.03 | 18.84 | 19.06 | 20.00 |
|  |       | 1  | 0  | 19.10 | 19.07 | 19.05 | 20.00 |
|  | 64QAM | 1  | 38 | 18.85 | 18.79 | 18.99 | 20.00 |
|  |       | 1  | 74 | 19.36 | 19.62 | 19.24 | 20.00 |
|  |       | 36 | 0  | 19.22 | 19.12 | 19.04 | 20.00 |
|  |       | 36 | 18 | 19.23 | 19.13 | 19.25 | 20.00 |
|  |       | 36 | 39 | 19.21 | 19.26 | 19.23 | 20.00 |
|  |       | 75 | 0  | 19.32 | 19.34 | 19.16 | 20.00 |

| LTE FDD Band 26<br>(Receiver off) |            |         |           | Conducted Power(dBm)    |             |             | Tune-up<br>Limit |
|-----------------------------------|------------|---------|-----------|-------------------------|-------------|-------------|------------------|
| Bandwidth                         | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             |                  |
|                                   |            |         |           | 26697/814.7             | 26865/831.5 | 27033/848.3 |                  |
| 1.4MHz                            | QPSK       | 1       | 0         | 24.35                   | 24.45       | 24.23       | 25.00            |
|                                   |            | 1       | 2         | 24.41                   | 24.50       | 24.24       | 25.00            |
|                                   |            | 1       | 5         | 24.20                   | 24.11       | 24.31       | 25.00            |
|                                   |            | 3       | 0         | 23.49                   | 23.30       | 23.37       | 25.00            |
|                                   |            | 3       | 2         | 23.25                   | 23.36       | 23.32       | 25.00            |
|                                   |            | 3       | 3         | 23.36                   | 23.40       | 23.38       | 25.00            |
|                                   |            | 6       | 0         | 23.40                   | 23.42       | 23.26       | 24.00            |
|                                   | 16QAM      | 1       | 0         | 23.49                   | 23.47       | 23.29       | 24.00            |
|                                   |            | 1       | 2         | 23.44                   | 23.33       | 23.32       | 24.00            |
|                                   |            | 1       | 5         | 23.40                   | 23.21       | 23.34       | 24.00            |
|                                   |            | 3       | 0         | 22.29                   | 22.26       | 22.51       | 24.00            |
|                                   |            | 3       | 2         | 22.14                   | 22.18       | 22.26       | 24.00            |
|                                   |            | 3       | 3         | 22.19                   | 22.23       | 22.23       | 24.00            |
|                                   |            | 6       | 0         | 22.28                   | 22.23       | 22.26       | 23.00            |
|                                   | 64QAM      | 1       | 0         | 22.45                   | 22.46       | 22.50       | 23.00            |
|                                   |            | 1       | 2         | 22.38                   | 22.40       | 22.39       | 23.00            |
|                                   |            | 1       | 5         | 22.35                   | 22.39       | 22.38       | 23.00            |
|                                   |            | 3       | 0         | 21.39                   | 21.44       | 21.43       | 23.00            |
|                                   |            | 3       | 2         | 21.43                   | 21.51       | 21.48       | 23.00            |
|                                   |            | 3       | 3         | 21.44                   | 21.54       | 21.53       | 23.00            |
|                                   |            | 6       | 0         | 21.51                   | 21.56       | 21.58       | 22.00            |
| Bandwidth                         | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up<br>Limit |
|                                   |            |         |           | 26705/815.5             | 26865/831.5 | 27025/847.5 |                  |
| 3MHz                              | QPSK       | 1       | 0         | 24.37                   | 24.49       | 24.26       | 25.00            |
|                                   |            | 1       | 7         | 24.41                   | 24.52       | 24.28       | 25.00            |

|           |            | 1       | 14        | 24.23                   | 24.16       | 24.35       | 25.00         |
|-----------|------------|---------|-----------|-------------------------|-------------|-------------|---------------|
|           |            | 8       | 0         | 23.53                   | 23.37       | 23.44       | 24.00         |
|           |            | 8       | 4         | 23.28                   | 23.44       | 23.38       | 24.00         |
|           |            | 8       | 7         | 23.40                   | 23.45       | 23.42       | 24.00         |
|           |            | 15      | 0         | 23.42                   | 23.46       | 23.29       | 24.00         |
|           | 16QAM      | 1       | 0         | 23.52                   | 23.49       | 23.32       | 24.00         |
|           |            | 1       | 7         | 23.47                   | 23.35       | 23.36       | 24.00         |
|           |            | 1       | 14        | 23.42                   | 23.25       | 23.37       | 24.00         |
|           |            | 8       | 0         | 22.34                   | 22.30       | 22.54       | 23.00         |
|           |            | 8       | 4         | 22.19                   | 22.25       | 22.32       | 23.00         |
|           |            | 8       | 7         | 22.23                   | 22.29       | 22.30       | 23.00         |
|           |            | 15      | 0         | 22.31                   | 22.27       | 22.29       | 23.00         |
|           | 64QAM      | 1       | 0         | 22.48                   | 22.48       | 22.53       | 23.00         |
|           |            | 1       | 7         | 22.41                   | 22.42       | 22.43       | 23.00         |
|           |            | 1       | 14        | 22.37                   | 22.43       | 22.41       | 23.00         |
|           |            | 8       | 0         | 21.44                   | 21.48       | 21.46       | 22.00         |
|           |            | 8       | 4         | 21.48                   | 21.58       | 21.54       | 22.00         |
|           |            | 8       | 7         | 21.48                   | 21.60       | 21.60       | 22.00         |
|           |            | 15      | 0         | 21.53                   | 21.62       | 21.63       | 22.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up Limit |
|           |            |         |           | 26715/816.5             | 26865/831.5 | 27015/846.5 |               |
| 5MHz      | QPSK       | 1       | 0         | 24.34                   | 24.47       | 24.22       | 25.00         |
|           |            | 1       | 13        | 24.39                   | 24.48       | 24.25       | 25.00         |
|           |            | 1       | 24        | 24.20                   | 24.11       | 24.31       | 25.00         |
|           |            | 12      | 0         | 23.50                   | 23.32       | 23.40       | 24.00         |
|           |            | 12      | 6         | 23.26                   | 23.40       | 23.33       | 24.00         |
|           |            | 12      | 13        | 23.38                   | 23.43       | 23.38       | 24.00         |
|           |            | 25      | 0         | 23.40                   | 23.45       | 23.27       | 24.00         |
|           | 16QAM      | 1       | 0         | 23.49                   | 23.45       | 23.29       | 24.00         |
|           |            | 1       | 13        | 23.44                   | 23.33       | 23.33       | 24.00         |
|           |            | 1       | 24        | 23.39                   | 23.23       | 23.33       | 24.00         |
|           |            | 12      | 0         | 22.32                   | 22.26       | 22.51       | 23.00         |
|           |            | 12      | 6         | 22.16                   | 22.20       | 22.28       | 23.00         |
|           |            | 12      | 13        | 22.20                   | 22.24       | 22.26       | 23.00         |
|           |            | 25      | 0         | 22.29                   | 22.23       | 22.24       | 23.00         |
|           | 64QAM      | 1       | 0         | 22.45                   | 22.44       | 22.50       | 23.00         |
|           |            | 1       | 13        | 22.38                   | 22.40       | 22.40       | 23.00         |
|           |            | 1       | 24        | 22.34                   | 22.41       | 22.37       | 23.00         |
|           |            | 12      | 0         | 21.42                   | 21.44       | 21.43       | 22.00         |
|           |            | 12      | 6         | 21.45                   | 21.53       | 21.50       | 22.00         |
|           |            | 12      | 13        | 21.45                   | 21.55       | 21.56       | 22.00         |
|           |            | 25      | 0         | 21.51                   | 21.58       | 21.58       | 22.00         |

| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up Limit |
|-----------|------------|---------|-----------|-------------------------|-------------|-------------|---------------|
|           |            |         |           | 26750/820               | 26865/831.5 | 26990/844   |               |
| 10MHz     | QPSK       | 1       | 0         | 24.35                   | 24.46       | 24.24       | 25.00         |
|           |            | 1       | 25        | 24.40                   | 24.52       | 24.27       | 25.00         |
|           |            | 1       | 49        | 24.21                   | 24.13       | 24.33       | 25.00         |
|           |            | 25      | 0         | 23.51                   | 23.36       | 23.42       | 24.00         |
|           |            | 25      | 13        | 23.28                   | 23.43       | 23.36       | 24.00         |
|           |            | 25      | 25        | 23.38                   | 23.43       | 23.42       | 24.00         |
|           |            | 50      | 0         | 23.40                   | 23.46       | 23.28       | 24.00         |
|           | 16QAM      | 1       | 0         | 23.48                   | 23.43       | 23.29       | 24.00         |
|           |            | 1       | 25        | 23.46                   | 23.36       | 23.31       | 24.00         |
|           |            | 1       | 49        | 23.40                   | 23.21       | 23.35       | 24.00         |
|           |            | 25      | 0         | 22.30                   | 22.30       | 22.52       | 23.00         |
|           |            | 25      | 13        | 22.15                   | 22.19       | 22.29       | 23.00         |
|           |            | 25      | 25        | 22.22                   | 22.28       | 22.25       | 23.00         |
|           |            | 50      | 0         | 22.28                   | 22.25       | 22.24       | 23.00         |
|           | 64QAM      | 1       | 0         | 22.45                   | 22.43       | 22.51       | 23.00         |
|           |            | 1       | 25        | 22.40                   | 22.42       | 22.40       | 23.00         |
|           |            | 1       | 49        | 22.34                   | 22.38       | 22.38       | 23.00         |
|           |            | 25      | 0         | 21.44                   | 21.48       | 21.42       | 22.00         |
|           |            | 25      | 13        | 21.43                   | 21.54       | 21.49       | 22.00         |
|           |            | 25      | 25        | 21.46                   | 21.56       | 21.59       | 22.00         |
|           |            | 50      | 0         | 21.53                   | 21.61       | 21.59       | 22.00         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |             |             | Tune-up Limit |
|           |            |         |           | 26775/822.5             | 26865/831.5 | 26965/841.5 |               |
| 15MHz     | QPSK       | 1       | 0         | 24.32                   | 24.40       | 24.20       | 25.00         |
|           |            | 1       | 38        | 24.39                   | 24.48       | 24.24       | 25.00         |
|           |            | 1       | 74        | 24.17                   | 24.09       | 24.27       | 25.00         |
|           |            | 36      | 0         | 23.48                   | 23.28       | 23.37       | 24.00         |
|           |            | 36      | 18        | 23.24                   | 23.36       | 23.30       | 24.00         |
|           |            | 36      | 39        | 23.34                   | 23.39       | 23.35       | 24.00         |
|           |            | 75      | 0         | 23.40                   | 23.38       | 23.22       | 24.00         |
|           | 16QAM      | 1       | 0         | 23.44                   | 23.42       | 23.24       | 24.00         |
|           |            | 1       | 38        | 23.41                   | 23.32       | 23.30       | 24.00         |
|           |            | 1       | 74        | 23.37                   | 23.18       | 23.31       | 24.00         |
|           |            | 36      | 0         | 22.29                   | 22.25       | 22.49       | 23.00         |
|           |            | 36      | 18        | 22.12                   | 22.17       | 22.24       | 23.00         |
|           |            | 36      | 39        | 22.18                   | 22.20       | 22.23       | 23.00         |
|           |            | 75      | 0         | 22.27                   | 22.19       | 22.21       | 23.00         |
|           | 64QAM      | 1       | 0         | 22.40                   | 22.41       | 22.45       | 23.00         |
|           |            | 1       | 38        | 22.35                   | 22.39       | 22.37       | 23.00         |
|           |            | 1       | 74        | 22.32                   | 22.36       | 22.35       | 23.00         |
|           |            | 36      | 0         | 21.39                   | 21.43       | 21.41       | 22.00         |

|  |  |    |    |       |       |       |       |
|--|--|----|----|-------|-------|-------|-------|
|  |  | 36 | 18 | 21.41 | 21.50 | 21.46 | 22.00 |
|  |  | 36 | 39 | 21.43 | 21.51 | 21.53 | 22.00 |
|  |  | 75 | 0  | 21.49 | 21.54 | 21.55 | 22.00 |

| LTE TDD Band 38<br>(Receiver on) |            |         |           | Conducted Power(dBm)    |            |              | Tune-up<br>Limit |
|----------------------------------|------------|---------|-----------|-------------------------|------------|--------------|------------------|
| Bandwidth                        | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              |                  |
|                                  |            |         |           | 37775/2572.5            | 38000/2595 | 38225/2617.5 |                  |
| 5MHz                             | QPSK       | 1       | 0         | 17.34                   | 17.35      | 17.19        | 18.13            |
|                                  |            | 1       | 13        | 17.37                   | 17.26      | 17.26        | 18.13            |
|                                  |            | 1       | 24        | 17.34                   | 17.40      | 17.38        | 18.13            |
|                                  |            | 12      | 0         | 17.31                   | 17.10      | 17.13        | 18.13            |
|                                  |            | 12      | 6         | 17.28                   | 17.06      | 17.23        | 18.13            |
|                                  |            | 12      | 13        | 17.36                   | 17.22      | 17.24        | 18.13            |
|                                  |            | 25      | 0         | 17.25                   | 17.34      | 17.27        | 18.13            |
|                                  | 16QAM      | 1       | 0         | 17.74                   | 17.76      | 17.71        | 18.13            |
|                                  |            | 1       | 13        | 17.61                   | 17.50      | 17.46        | 18.13            |
|                                  |            | 1       | 24        | 17.86                   | 17.79      | 17.64        | 18.13            |
|                                  |            | 12      | 0         | 17.29                   | 17.08      | 17.00        | 18.13            |
|                                  |            | 12      | 6         | 17.15                   | 17.07      | 17.16        | 18.13            |
|                                  |            | 12      | 13        | 17.22                   | 17.09      | 17.12        | 18.13            |
|                                  |            | 25      | 0         | 17.20                   | 17.22      | 17.22        | 18.13            |
|                                  | 64QAM      | 1       | 0         | 17.74                   | 17.74      | 17.71        | 18.13            |
|                                  |            | 1       | 13        | 17.56                   | 17.50      | 17.48        | 18.13            |
|                                  |            | 1       | 24        | 17.80                   | 17.75      | 17.64        | 18.13            |
|                                  |            | 12      | 0         | 17.38                   | 17.42      | 17.31        | 18.13            |
|                                  |            | 12      | 6         | 17.42                   | 17.35      | 17.34        | 18.13            |
|                                  |            | 12      | 13        | 17.31                   | 17.45      | 17.38        | 18.13            |
|                                  |            | 25      | 0         | 17.54                   | 17.52      | 17.53        | 18.13            |
| Bandwidth                        | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up<br>Limit |
|                                  |            |         |           | 37800/2575              | 38000/2595 | 38200/2615   |                  |
| 10MHz                            | QPSK       | 1       | 0         | 17.35                   | 17.34      | 17.21        | 18.13            |
|                                  |            | 1       | 25        | 17.38                   | 17.30      | 17.28        | 18.13            |
|                                  |            | 1       | 49        | 17.35                   | 17.42      | 17.40        | 18.13            |
|                                  |            | 25      | 0         | 17.32                   | 17.14      | 17.15        | 18.13            |
|                                  |            | 25      | 13        | 17.30                   | 17.09      | 17.26        | 18.13            |
|                                  |            | 25      | 25        | 17.36                   | 17.22      | 17.28        | 18.13            |
|                                  |            | 50      | 0         | 17.25                   | 17.35      | 17.28        | 18.13            |
|                                  | 16QAM      | 1       | 0         | 17.73                   | 17.74      | 17.71        | 18.13            |
|                                  |            | 1       | 25        | 17.63                   | 17.53      | 17.44        | 18.13            |
|                                  |            | 1       | 49        | 17.87                   | 17.77      | 17.66        | 18.13            |
|                                  |            | 25      | 0         | 17.27                   | 17.12      | 17.01        | 18.13            |
|                                  |            | 25      | 13        | 17.14                   | 17.06      | 17.17        | 18.13            |

|           |            | 25      | 25        | 17.24                   | 17.13      | 17.11        | 18.13         |
|-----------|------------|---------|-----------|-------------------------|------------|--------------|---------------|
|           |            | 50      | 0         | 17.19                   | 17.24      | 17.22        | 18.13         |
|           | 64QAM      | 1       | 0         | 17.74                   | 17.73      | 17.72        | 18.13         |
|           |            | 1       | 25        | 17.58                   | 17.52      | 17.48        | 18.13         |
|           |            | 1       | 49        | 17.80                   | 17.72      | 17.65        | 18.13         |
|           |            | 25      | 0         | 17.40                   | 17.46      | 17.30        | 18.13         |
|           |            | 25      | 13        | 17.40                   | 17.36      | 17.33        | 18.13         |
|           |            | 25      | 25        | 17.32                   | 17.46      | 17.41        | 18.13         |
|           |            | 50      | 0         | 17.56                   | 17.55      | 17.54        | 18.13         |
|           |            |         |           |                         |            |              |               |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 37825/2577.5            | 38000/2595 | 38175/2612.5 |               |
| 15MHz     | QPSK       | 1       | 0         | 17.35                   | 17.32      | 17.20        | 18.13         |
|           |            | 1       | 38        | 17.38                   | 17.30      | 17.27        | 18.13         |
|           |            | 1       | 74        | 17.33                   | 17.39      | 17.37        | 18.13         |
|           |            | 36      | 0         | 17.32                   | 17.11      | 17.14        | 18.13         |
|           |            | 36      | 18        | 17.28                   | 17.06      | 17.23        | 18.13         |
|           |            | 36      | 39        | 17.35                   | 17.23      | 17.25        | 18.13         |
|           |            | 75      | 0         | 17.28                   | 17.32      | 17.26        | 18.13         |
|           | 16QAM      | 1       | 0         | 17.71                   | 17.77      | 17.71        | 18.13         |
|           |            | 1       | 38        | 17.62                   | 17.51      | 17.47        | 18.13         |
|           |            | 1       | 74        | 17.86                   | 17.77      | 17.64        | 18.13         |
|           |            | 36      | 0         | 17.29                   | 17.11      | 17.01        | 18.13         |
|           |            | 36      | 18        | 17.14                   | 17.06      | 17.15        | 18.13         |
|           |            | 36      | 39        | 17.23                   | 17.10      | 17.13        | 18.13         |
|           |            | 75      | 0         | 17.20                   | 17.22      | 17.22        | 18.13         |
|           | 64QAM      | 1       | 0         | 17.71                   | 17.75      | 17.71        | 18.13         |
|           |            | 1       | 38        | 17.57                   | 17.51      | 17.49        | 18.13         |
|           |            | 1       | 74        | 17.80                   | 17.73      | 17.64        | 18.13         |
|           |            | 36      | 0         | 17.38                   | 17.45      | 17.32        | 18.13         |
|           |            | 36      | 18        | 17.41                   | 17.34      | 17.33        | 18.13         |
|           |            | 36      | 39        | 17.32                   | 17.46      | 17.39        | 18.13         |
|           |            | 75      | 0         | 17.54                   | 17.52      | 17.53        | 18.13         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 37850/2580              | 38000/2595 | 38150/2610   |               |
| 20MHz     | QPSK       | 1       | 0         | 17.32                   | 17.28      | 17.17        | 18.13         |
|           |            | 1       | 50        | 17.37                   | 17.26      | 17.25        | 18.13         |
|           |            | 1       | 99        | 17.31                   | 17.38      | 17.34        | 18.13         |
|           |            | 50      | 0         | 17.29                   | 17.06      | 17.10        | 18.13         |
|           |            | 50      | 25        | 17.26                   | 17.02      | 17.20        | 18.13         |
|           |            | 50      | 50        | 17.32                   | 17.18      | 17.21        | 18.13         |
|           |            | 100     | 0         | 17.25                   | 17.27      | 17.22        | 18.13         |
|           | 16QAM      | 1       | 0         | 17.69                   | 17.73      | 17.66        | 18.13         |
|           |            | 1       | 50        | 17.58                   | 17.49      | 17.43        | 18.13         |

|  |       |     |    |       |       |       |       |
|--|-------|-----|----|-------|-------|-------|-------|
|  |       | 1   | 99 | 17.84 | 17.74 | 17.62 | 18.13 |
|  |       | 50  | 0  | 17.26 | 17.07 | 16.98 | 18.13 |
|  |       | 50  | 25 | 17.11 | 17.04 | 17.12 | 18.13 |
|  |       | 50  | 50 | 17.20 | 17.05 | 17.09 | 18.13 |
|  |       | 100 | 0  | 17.18 | 17.18 | 17.19 | 18.13 |
|  | 64QAM | 1   | 0  | 17.69 | 17.71 | 17.66 | 18.13 |
|  |       | 1   | 50 | 17.53 | 17.49 | 17.45 | 18.13 |
|  |       | 1   | 99 | 17.78 | 17.70 | 17.62 | 18.13 |
|  |       | 50  | 0  | 17.35 | 17.41 | 17.29 | 18.13 |
|  |       | 50  | 25 | 17.38 | 17.32 | 17.30 | 18.13 |
|  |       | 50  | 50 | 17.29 | 17.41 | 17.35 | 18.13 |
|  |       | 100 | 0  | 17.52 | 17.48 | 17.50 | 18.13 |

| LTE TDD Band 38<br>(Receiver off) |            |         |           | Conducted Power(dBm)    |            |              | Tune-up<br>Limit |
|-----------------------------------|------------|---------|-----------|-------------------------|------------|--------------|------------------|
| Bandwidth                         | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              |                  |
|                                   |            |         |           | 37775/2572.5            | 38000/2595 | 38225/2617.5 |                  |
| 5MHz                              | QPSK       | 1       | 0         | 22.02                   | 22.02      | 21.88        | 22.63            |
|                                   |            | 1       | 13        | 21.86                   | 21.94      | 21.86        | 22.63            |
|                                   |            | 1       | 24        | 22.00                   | 21.94      | 22.02        | 22.63            |
|                                   |            | 12      | 0         | 21.01                   | 21.06      | 20.76        | 21.63            |
|                                   |            | 12      | 6         | 20.92                   | 20.99      | 20.85        | 21.63            |
|                                   |            | 12      | 13        | 20.97                   | 20.90      | 20.95        | 21.63            |
|                                   |            | 25      | 0         | 20.90                   | 20.98      | 20.75        | 21.63            |
|                                   | 16QAM      | 1       | 0         | 21.15                   | 21.20      | 21.03        | 21.63            |
|                                   |            | 1       | 13        | 21.07                   | 21.03      | 21.03        | 21.63            |
|                                   |            | 1       | 24        | 21.10                   | 21.25      | 21.16        | 21.63            |
|                                   |            | 12      | 0         | 19.88                   | 19.68      | 19.70        | 20.63            |
|                                   |            | 12      | 6         | 19.87                   | 19.63      | 19.81        | 20.63            |
|                                   |            | 12      | 13        | 19.82                   | 19.86      | 19.79        | 20.63            |
|                                   |            | 25      | 0         | 19.81                   | 19.91      | 19.69        | 20.63            |
|                                   | 64QAM      | 1       | 0         | 20.32                   | 20.47      | 20.36        | 20.63            |
|                                   |            | 1       | 13        | 20.13                   | 19.57      | 20.20        | 20.63            |
|                                   |            | 1       | 24        | 20.19                   | 19.76      | 20.22        | 20.63            |
|                                   |            | 12      | 0         | 19.17                   | 19.02      | 18.96        | 19.63            |
|                                   |            | 12      | 6         | 19.09                   | 18.96      | 19.15        | 19.63            |
|                                   |            | 12      | 13        | 19.15                   | 19.19      | 19.12        | 19.63            |
|                                   |            | 25      | 0         | 19.16                   | 19.22      | 19.00        | 19.63            |
| Bandwidth                         | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up<br>Limit |
|                                   |            |         |           | 37800/2575              | 38000/2595 | 38200/2615   |                  |
| 10MHz                             | QPSK       | 1       | 0         | 22.03                   | 22.01      | 21.90        | 22.63            |
|                                   |            | 1       | 25        | 21.87                   | 21.98      | 21.88        | 22.63            |
|                                   |            | 1       | 49        | 22.01                   | 21.96      | 22.04        | 22.63            |

|           |            | 25      | 0         | 21.02                   | 21.10      | 20.78        | 21.63         |
|-----------|------------|---------|-----------|-------------------------|------------|--------------|---------------|
|           |            | 25      | 13        | 20.94                   | 21.02      | 20.88        | 21.63         |
|           |            | 25      | 25        | 20.97                   | 20.90      | 20.99        | 21.63         |
|           |            | 50      | 0         | 20.90                   | 20.99      | 20.76        | 21.63         |
|           | 16QAM      | 1       | 0         | 21.14                   | 21.18      | 21.03        | 21.63         |
|           |            | 1       | 25        | 21.09                   | 21.06      | 21.01        | 21.63         |
|           |            | 1       | 49        | 21.11                   | 21.23      | 21.18        | 21.63         |
|           |            | 25      | 0         | 19.86                   | 19.72      | 19.71        | 20.63         |
|           |            | 25      | 13        | 19.86                   | 19.62      | 19.82        | 20.63         |
|           |            | 25      | 25        | 19.84                   | 19.90      | 19.78        | 20.63         |
|           |            | 50      | 0         | 19.80                   | 19.93      | 19.69        | 20.63         |
|           | 64QAM      | 1       | 0         | 20.32                   | 20.46      | 20.47        | 20.63         |
|           |            | 1       | 25        | 20.15                   | 19.59      | 20.20        | 20.63         |
|           |            | 1       | 49        | 20.19                   | 19.73      | 20.23        | 20.63         |
|           |            | 25      | 0         | 19.19                   | 19.06      | 18.95        | 19.63         |
|           |            | 25      | 13        | 19.07                   | 18.97      | 19.14        | 19.63         |
|           |            | 25      | 25        | 19.16                   | 19.20      | 19.15        | 19.63         |
|           |            | 50      | 0         | 19.18                   | 19.25      | 19.01        | 19.63         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 37825/2577.5            | 38000/2595 | 38175/2612.5 |               |
| 15MHz     | QPSK       | 1       | 0         | 22.03                   | 21.99      | 21.89        | 22.63         |
|           |            | 1       | 38        | 21.87                   | 21.98      | 21.87        | 22.63         |
|           |            | 1       | 74        | 21.99                   | 21.93      | 22.01        | 22.63         |
|           |            | 36      | 0         | 21.02                   | 21.07      | 20.77        | 21.63         |
|           |            | 36      | 18        | 20.92                   | 20.99      | 20.85        | 21.63         |
|           |            | 36      | 39        | 20.96                   | 20.91      | 20.96        | 21.63         |
|           |            | 75      | 0         | 20.93                   | 20.96      | 20.74        | 21.63         |
|           | 16QAM      | 1       | 0         | 21.12                   | 21.21      | 21.03        | 21.63         |
|           |            | 1       | 38        | 21.08                   | 21.04      | 21.04        | 21.63         |
|           |            | 1       | 74        | 21.10                   | 21.23      | 21.16        | 21.63         |
|           |            | 36      | 0         | 19.88                   | 19.71      | 19.71        | 20.63         |
|           |            | 36      | 18        | 19.86                   | 19.62      | 19.80        | 20.63         |
|           |            | 36      | 39        | 19.83                   | 19.87      | 19.80        | 20.63         |
|           |            | 75      | 0         | 19.81                   | 19.91      | 19.69        | 20.63         |
|           | 64QAM      | 1       | 0         | 20.29                   | 20.48      | 20.46        | 20.63         |
|           |            | 1       | 38        | 20.14                   | 19.58      | 20.21        | 20.63         |
|           |            | 1       | 74        | 20.19                   | 19.74      | 20.22        | 20.63         |
|           |            | 36      | 0         | 19.17                   | 19.05      | 18.97        | 19.63         |
|           |            | 36      | 18        | 19.08                   | 18.95      | 19.14        | 19.63         |
|           |            | 36      | 39        | 19.16                   | 19.20      | 19.13        | 19.63         |
|           |            | 75      | 0         | 19.16                   | 19.22      | 19.00        | 19.63         |

| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |            | Tune-up Limit |
|-----------|------------|---------|-----------|-------------------------|------------|------------|---------------|
|           |            |         |           | 37850/2580              | 38000/2595 | 38150/2610 |               |
| 20MHz     | QPSK       | 1       | 0         | 22.00                   | 21.95      | 21.86      | 22.63         |
|           |            | 1       | 50        | 21.86                   | 21.94      | 21.85      | 22.63         |
|           |            | 1       | 99        | 21.97                   | 21.92      | 21.98      | 22.63         |
|           |            | 50      | 0         | 20.99                   | 21.02      | 20.73      | 21.63         |
|           |            | 50      | 25        | 20.90                   | 20.95      | 20.82      | 21.63         |
|           |            | 50      | 50        | 20.93                   | 20.86      | 20.92      | 21.63         |
|           |            | 100     | 0         | 20.90                   | 20.91      | 20.70      | 21.63         |
|           | 16QAM      | 1       | 0         | 21.10                   | 21.17      | 20.98      | 21.63         |
|           |            | 1       | 50        | 21.04                   | 21.02      | 21.00      | 21.63         |
|           |            | 1       | 99        | 21.08                   | 21.20      | 21.14      | 21.63         |
|           |            | 50      | 0         | 19.85                   | 19.67      | 19.68      | 20.63         |
|           |            | 50      | 25        | 19.83                   | 19.60      | 19.77      | 20.63         |
|           |            | 50      | 50        | 19.80                   | 19.82      | 19.76      | 20.63         |
|           |            | 100     | 0         | 19.79                   | 19.87      | 19.66      | 20.63         |
|           | 64QAM      | 1       | 0         | 20.27                   | 20.44      | 20.41      | 20.63         |
|           |            | 1       | 50        | 20.10                   | 19.56      | 20.17      | 20.63         |
|           |            | 1       | 99        | 20.17                   | 19.71      | 20.20      | 20.63         |
|           |            | 50      | 0         | 19.14                   | 19.01      | 18.94      | 19.63         |
|           |            | 50      | 25        | 19.05                   | 18.93      | 19.11      | 19.63         |
|           |            | 50      | 50        | 19.13                   | 19.15      | 19.09      | 19.63         |
|           |            | 100     | 0         | 19.14                   | 19.18      | 18.97      | 19.63         |

| LTE TDD Band 41<br>(Receiver on) |            |         |           | Conducted Power(dBm)    |            |              | Tune-up<br>Limit |
|----------------------------------|------------|---------|-----------|-------------------------|------------|--------------|------------------|
| Bandwidth                        | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              |                  |
|                                  |            |         |           | 40148/2545.8            | 40620/2593 | 41093/2640.3 |                  |
| 5MHz                             | QPSK       | 1       | 0         | 17.16                   | 16.73      | 16.54        | 18.13            |
|                                  |            | 1       | 13        | 17.15                   | 16.87      | 16.69        | 18.13            |
|                                  |            | 1       | 24        | 17.12                   | 16.76      | 16.74        | 18.13            |
|                                  |            | 12      | 0         | 17.10                   | 16.59      | 16.43        | 18.13            |
|                                  |            | 12      | 6         | 17.06                   | 16.62      | 16.66        | 18.13            |
|                                  |            | 12      | 13        | 17.13                   | 16.74      | 16.57        | 18.13            |
|                                  |            | 25      | 0         | 17.07                   | 16.59      | 16.55        | 18.13            |
|                                  | 16QAM      | 1       | 0         | 17.49                   | 17.13      | 16.59        | 18.13            |
|                                  |            | 1       | 13        | 17.40                   | 17.06      | 16.75        | 18.13            |
|                                  |            | 1       | 24        | 17.54                   | 17.04      | 16.64        | 18.13            |
|                                  |            | 12      | 0         | 16.90                   | 16.57      | 16.57        | 18.13            |
|                                  |            | 12      | 6         | 16.81                   | 16.66      | 16.47        | 18.13            |
|                                  |            | 12      | 13        | 16.90                   | 16.75      | 16.61        | 18.13            |
|                                  |            | 25      | 0         | 16.88                   | 16.71      | 16.62        | 18.13            |
|                                  | 64QAM      | 1       | 0         | 17.20                   | 17.13      | 17.14        | 18.13            |



|           |            | 1       | 13        | 17.33                   | 17.01      | 17.36        | 18.13         |
|-----------|------------|---------|-----------|-------------------------|------------|--------------|---------------|
|           |            | 1       | 24        | 17.34                   | 17.20      | 17.28        | 18.13         |
|           |            | 12      | 0         | 17.21                   | 17.27      | 17.29        | 18.13         |
|           |            | 12      | 6         | 17.24                   | 17.38      | 17.24        | 18.13         |
|           |            | 12      | 13        | 17.23                   | 17.37      | 17.18        | 18.13         |
|           |            | 25      | 0         | 17.34                   | 17.10      | 17.25        | 18.13         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 40160/2547              | 40620/2593 | 41080/2639   |               |
| 10MHz     | QPSK       | 1       | 0         | 17.17                   | 16.72      | 16.56        | 18.13         |
|           |            | 1       | 25        | 17.16                   | 16.91      | 16.71        | 18.13         |
|           |            | 1       | 49        | 17.13                   | 16.78      | 16.76        | 18.13         |
|           |            | 25      | 0         | 17.11                   | 16.63      | 16.45        | 18.13         |
|           |            | 25      | 13        | 17.08                   | 16.65      | 16.69        | 18.13         |
|           |            | 25      | 25        | 17.13                   | 16.74      | 16.61        | 18.13         |
|           |            | 50      | 0         | 17.07                   | 16.60      | 16.56        | 18.13         |
|           | 16QAM      | 1       | 0         | 17.48                   | 17.11      | 16.59        | 18.13         |
|           |            | 1       | 25        | 17.42                   | 17.09      | 16.73        | 18.13         |
|           |            | 1       | 49        | 17.55                   | 17.02      | 16.66        | 18.13         |
|           |            | 25      | 0         | 16.88                   | 16.61      | 16.58        | 18.13         |
|           |            | 25      | 13        | 16.80                   | 16.65      | 16.48        | 18.13         |
|           |            | 25      | 25        | 16.92                   | 16.79      | 16.60        | 18.13         |
|           |            | 50      | 0         | 16.87                   | 16.73      | 16.62        | 18.13         |
|           | 64QAM      | 1       | 0         | 17.20                   | 17.12      | 17.15        | 18.13         |
|           |            | 1       | 25        | 17.35                   | 17.03      | 17.36        | 18.13         |
|           |            | 1       | 49        | 17.34                   | 17.17      | 17.29        | 18.13         |
|           |            | 25      | 0         | 17.23                   | 17.31      | 17.28        | 18.13         |
|           |            | 25      | 13        | 17.22                   | 17.39      | 17.23        | 18.13         |
|           |            | 25      | 25        | 17.24                   | 17.38      | 17.21        | 18.13         |
|           |            | 50      | 0         | 17.36                   | 17.13      | 17.26        | 18.13         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 40173/2548.3            | 40620/2593 | 41068/2637.8 |               |
| 15MHz     | QPSK       | 1       | 0         | 17.17                   | 16.70      | 16.55        | 18.13         |
|           |            | 1       | 38        | 17.16                   | 16.91      | 16.70        | 18.13         |
|           |            | 1       | 74        | 17.11                   | 16.75      | 16.73        | 18.13         |
|           |            | 36      | 0         | 17.11                   | 16.60      | 16.44        | 18.13         |
|           |            | 36      | 18        | 17.06                   | 16.62      | 16.66        | 18.13         |
|           |            | 36      | 39        | 17.12                   | 16.75      | 16.58        | 18.13         |
|           |            | 75      | 0         | 17.10                   | 16.57      | 16.54        | 18.13         |
|           | 16QAM      | 1       | 0         | 17.46                   | 17.14      | 16.59        | 18.13         |
|           |            | 1       | 38        | 17.41                   | 17.07      | 16.76        | 18.13         |
|           |            | 1       | 74        | 17.54                   | 17.02      | 16.64        | 18.13         |

|           |            | 36      | 0         | 16.90                   | 16.60      | 16.58        | 18.13         |
|-----------|------------|---------|-----------|-------------------------|------------|--------------|---------------|
|           |            | 36      | 18        | 16.80                   | 16.65      | 16.46        | 18.13         |
|           |            | 36      | 39        | 16.91                   | 16.76      | 16.62        | 18.13         |
|           |            | 75      | 0         | 16.88                   | 16.71      | 16.62        | 18.13         |
|           | 64QAM      | 1       | 0         | 17.17                   | 17.14      | 17.14        | 18.13         |
|           |            | 1       | 38        | 17.34                   | 17.02      | 17.37        | 18.13         |
|           |            | 1       | 74        | 17.34                   | 17.18      | 17.28        | 18.13         |
|           |            | 36      | 0         | 17.21                   | 17.30      | 17.30        | 18.13         |
|           |            | 36      | 18        | 17.23                   | 17.37      | 17.23        | 18.13         |
|           |            | 36      | 39        | 17.24                   | 17.38      | 17.19        | 18.13         |
|           |            | 75      | 0         | 17.34                   | 17.10      | 17.25        | 18.13         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 40185/2549.5            | 40620/2593 | 41055/2636.5 |               |
| 20MHz     | QPSK       | 1       | 0         | 17.14                   | 16.66      | 16.52        | 18.13         |
|           |            | 1       | 50        | 17.15                   | 16.87      | 16.68        | 18.13         |
|           |            | 1       | 99        | 17.09                   | 16.74      | 16.70        | 18.13         |
|           |            | 50      | 0         | 17.08                   | 16.55      | 16.40        | 18.13         |
|           |            | 50      | 25        | 17.04                   | 16.58      | 16.63        | 18.13         |
|           |            | 50      | 50        | 17.09                   | 16.70      | 16.54        | 18.13         |
|           |            | 100     | 0         | 17.07                   | 16.52      | 16.50        | 18.13         |
|           | 16QAM      | 1       | 0         | 17.44                   | 17.10      | 16.54        | 18.13         |
|           |            | 1       | 50        | 17.37                   | 17.05      | 16.72        | 18.13         |
|           |            | 1       | 99        | 17.52                   | 16.99      | 16.62        | 18.13         |
|           |            | 50      | 0         | 16.87                   | 16.56      | 16.55        | 18.13         |
|           |            | 50      | 25        | 16.77                   | 16.63      | 16.43        | 18.13         |
|           |            | 50      | 50        | 16.88                   | 16.71      | 16.58        | 18.13         |
|           |            | 100     | 0         | 16.86                   | 16.67      | 16.59        | 18.13         |
|           | 64QAM      | 1       | 0         | 17.15                   | 17.10      | 17.09        | 18.13         |
|           |            | 1       | 50        | 17.30                   | 17.00      | 17.33        | 18.13         |
|           |            | 1       | 99        | 17.32                   | 17.15      | 17.26        | 18.13         |
|           |            | 50      | 0         | 17.18                   | 17.26      | 17.27        | 18.13         |
|           |            | 50      | 25        | 17.20                   | 17.35      | 17.20        | 18.13         |
|           |            | 50      | 50        | 17.21                   | 17.33      | 17.15        | 18.13         |
|           |            | 100     | 0         | 17.32                   | 17.06      | 17.22        | 18.13         |

| LTE TDD Band 41<br>(Receiver off) |            |         |           | Conducted Power(dBm)    |            |              | Tune-up<br>Limit |
|-----------------------------------|------------|---------|-----------|-------------------------|------------|--------------|------------------|
| Bandwidth                         | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              |                  |
|                                   |            |         |           | 40148/2545.8            | 40620/2593 | 41093/2640.3 |                  |
| 5MHz                              | QPSK       | 1       | 0         | 22.21                   | 21.96      | 22.02        | 23.13            |
|                                   |            | 1       | 13        | 22.28                   | 22.11      | 21.86        | 23.13            |
|                                   |            | 1       | 24        | 22.26                   | 21.94      | 22.01        | 23.13            |

|           |            | 12      | 0         | 21.20                   | 21.14      | 20.93      | 22.13         |
|-----------|------------|---------|-----------|-------------------------|------------|------------|---------------|
|           |            | 12      | 6         | 21.19                   | 21.08      | 20.87      | 22.13         |
|           |            | 12      | 13        | 21.30                   | 21.11      | 20.92      | 22.13         |
|           |            | 25      | 0         | 21.22                   | 21.13      | 20.90      | 22.13         |
|           | 16QAM      | 1       | 0         | 21.37                   | 21.33      | 21.11      | 22.13         |
|           |            | 1       | 13        | 21.36                   | 21.06      | 21.04      | 22.13         |
|           |            | 1       | 24        | 21.40                   | 21.09      | 21.12      | 22.13         |
|           |            | 12      | 0         | 20.08                   | 19.95      | 19.88      | 21.13         |
|           |            | 12      | 6         | 20.19                   | 19.93      | 19.83      | 21.13         |
|           |            | 12      | 13        | 20.14                   | 19.87      | 19.89      | 21.13         |
|           |            | 25      | 0         | 20.18                   | 19.98      | 20.59      | 21.13         |
|           | 64QAM      | 1       | 0         | 20.50                   | 20.46      | 20.56      | 21.13         |
|           |            | 1       | 13        | 20.36                   | 20.48      | 20.52      | 21.13         |
|           |            | 1       | 24        | 20.31                   | 20.31      | 20.53      | 21.13         |
|           |            | 12      | 0         | 20.10                   | 19.98      | 19.91      | 20.13         |
|           |            | 12      | 6         | 19.81                   | 19.85      | 19.89      | 20.13         |
|           |            | 12      | 13        | 19.86                   | 19.91      | 19.91      | 20.13         |
|           |            | 25      | 0         | 19.71                   | 19.75      | 19.88      | 20.13         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |            | Tune-up Limit |
|           |            |         |           | 40160/2547              | 40620/2593 | 41080/2639 |               |
| 10MHz     | QPSK       | 1       | 0         | 22.22                   | 21.95      | 22.04      | 23.13         |
|           |            | 1       | 25        | 22.29                   | 22.15      | 21.88      | 23.13         |
|           |            | 1       | 49        | 22.27                   | 21.96      | 22.03      | 23.13         |
|           |            | 25      | 0         | 21.21                   | 21.18      | 20.95      | 22.13         |
|           |            | 25      | 13        | 21.21                   | 21.11      | 20.90      | 22.13         |
|           |            | 25      | 25        | 21.30                   | 21.11      | 20.96      | 22.13         |
|           |            | 50      | 0         | 21.22                   | 21.14      | 20.91      | 22.13         |
|           | 16QAM      | 1       | 0         | 21.36                   | 21.31      | 21.11      | 22.13         |
|           |            | 1       | 25        | 21.38                   | 21.09      | 21.02      | 22.13         |
|           |            | 1       | 49        | 21.41                   | 21.07      | 21.14      | 22.13         |
|           |            | 25      | 0         | 20.06                   | 19.99      | 19.89      | 21.13         |
|           |            | 25      | 13        | 20.18                   | 19.92      | 19.84      | 21.13         |
|           |            | 25      | 25        | 20.16                   | 19.91      | 19.88      | 21.13         |
|           |            | 50      | 0         | 20.17                   | 20.00      | 20.59      | 21.13         |
|           | 64QAM      | 1       | 0         | 20.50                   | 20.45      | 20.57      | 21.13         |
|           |            | 1       | 25        | 20.38                   | 20.50      | 20.52      | 21.13         |
|           |            | 1       | 49        | 20.31                   | 20.28      | 20.54      | 21.13         |
|           |            | 25      | 0         | 20.12                   | 20.02      | 19.90      | 20.13         |
|           |            | 25      | 13        | 19.79                   | 19.86      | 19.88      | 20.13         |
|           |            | 25      | 25        | 19.87                   | 19.92      | 19.94      | 20.13         |
|           |            | 50      | 0         | 19.73                   | 19.78      | 19.89      | 20.13         |

| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|-----------|------------|---------|-----------|-------------------------|------------|--------------|---------------|
|           |            |         |           | 40173/2548.3            | 40620/2593 | 41068/2637.8 |               |
| 15MHz     | QPSK       | 1       | 0         | 22.22                   | 21.93      | 22.03        | 23.13         |
|           |            | 1       | 38        | 22.29                   | 22.15      | 21.87        | 23.13         |
|           |            | 1       | 74        | 22.25                   | 21.93      | 22.00        | 23.13         |
|           |            | 36      | 0         | 21.21                   | 21.15      | 20.94        | 22.13         |
|           |            | 36      | 18        | 21.19                   | 21.08      | 20.87        | 22.13         |
|           |            | 36      | 39        | 21.29                   | 21.12      | 20.93        | 22.13         |
|           |            | 75      | 0         | 21.25                   | 21.11      | 20.89        | 22.13         |
|           | 16QAM      | 1       | 0         | 21.34                   | 21.34      | 21.11        | 22.13         |
|           |            | 1       | 38        | 21.37                   | 21.07      | 21.05        | 22.13         |
|           |            | 1       | 74        | 21.40                   | 21.07      | 21.12        | 22.13         |
|           |            | 36      | 0         | 20.08                   | 19.98      | 19.89        | 21.13         |
|           |            | 36      | 18        | 20.18                   | 19.92      | 19.82        | 21.13         |
|           |            | 36      | 39        | 20.15                   | 19.88      | 19.90        | 21.13         |
|           |            | 75      | 0         | 20.18                   | 19.98      | 20.59        | 21.13         |
|           | 64QAM      | 1       | 0         | 20.47                   | 20.47      | 20.56        | 21.13         |
|           |            | 1       | 38        | 20.37                   | 20.49      | 20.53        | 21.13         |
|           |            | 1       | 74        | 20.31                   | 20.29      | 20.53        | 21.13         |
|           |            | 36      | 0         | 20.10                   | 20.01      | 19.92        | 20.13         |
|           |            | 36      | 18        | 19.80                   | 19.84      | 19.88        | 20.13         |
|           |            | 36      | 39        | 19.87                   | 19.92      | 19.92        | 20.13         |
|           |            | 75      | 0         | 19.71                   | 19.75      | 19.88        | 20.13         |
| Bandwidth | Modulation | RB size | RB offset | Channel/Frequency (MHz) |            |              | Tune-up Limit |
|           |            |         |           | 40185/2549.5            | 40620/2593 | 41055/2636.5 |               |
| 20MHz     | QPSK       | 1       | 0         | 22.19                   | 21.89      | 22.00        | 23.13         |
|           |            | 1       | 50        | 22.28                   | 22.11      | 21.85        | 23.13         |
|           |            | 1       | 99        | 22.23                   | 21.92      | 21.97        | 23.13         |
|           |            | 50      | 0         | 21.18                   | 21.10      | 20.90        | 22.13         |
|           |            | 50      | 25        | 21.17                   | 21.04      | 20.84        | 22.13         |
|           |            | 50      | 50        | 21.26                   | 21.07      | 20.89        | 22.13         |
|           |            | 100     | 0         | 21.22                   | 21.06      | 20.85        | 22.13         |
|           | 16QAM      | 1       | 0         | 21.32                   | 21.30      | 21.06        | 22.13         |
|           |            | 1       | 50        | 21.33                   | 21.05      | 21.01        | 22.13         |
|           |            | 1       | 99        | 21.38                   | 21.04      | 21.10        | 22.13         |
|           |            | 50      | 0         | 20.05                   | 19.94      | 19.86        | 21.13         |
|           |            | 50      | 25        | 20.15                   | 19.90      | 19.79        | 21.13         |
|           |            | 50      | 50        | 20.12                   | 19.83      | 19.86        | 21.13         |
|           |            | 100     | 0         | 20.16                   | 19.94      | 20.56        | 21.13         |
|           | 64QAM      | 1       | 0         | 20.45                   | 20.43      | 20.51        | 21.13         |
|           |            | 1       | 50        | 20.33                   | 20.47      | 20.49        | 21.13         |

|  |  |     |    |       |       |       |       |
|--|--|-----|----|-------|-------|-------|-------|
|  |  | 1   | 99 | 20.29 | 20.26 | 20.51 | 21.13 |
|  |  | 50  | 0  | 20.07 | 19.97 | 19.89 | 20.13 |
|  |  | 50  | 25 | 19.77 | 19.82 | 19.85 | 20.13 |
|  |  | 50  | 50 | 19.84 | 19.87 | 19.88 | 20.13 |
|  |  | 100 | 0  | 19.69 | 19.71 | 19.85 | 20.13 |

### 9.3.2 Conducted power measurements of Downlink LTE CA

The following conducted power measurement results of downlink LTE carrier aggregation are provided to quantify downlink only carrier aggregation SAR test exclusion per KDB 941225 D05A.

Uplink maximum output power is measured with downlink carrier aggregation active, using the channel with highest measured maximum output power when downlink carrier aggregation is inactive, to confirm that when downlink carrier aggregation is active uplink maximum output power remains within the specified tune-up tolerance limits and not more than ¼dB higher than the maximum output power measured when downlink carrier aggregation inactive.

Power test equipment: R&S Radio Communication Tester CMW500 was used.

The power measurements result are in the table as below:

Table: Conducted power measurement results of DL CA (Main Antenna, Full Power)

| DL LTE CA Class | PCC      |          |            |                |                  |                |                | SCC1     |          |                | SCC2     |          |                | Power              |                          |         |
|-----------------|----------|----------|------------|----------------|------------------|----------------|----------------|----------|----------|----------------|----------|----------|----------------|--------------------|--------------------------|---------|
|                 | PCC Band | BW (MHz) | Modulation | PCC UL RB size | PCC UL RB offset | PCC UL Channel | PCC DL Channel | SCC Band | BW (MHz) | SCC DL Channel | SCC Band | BW (MHz) | SCC DL Channel | LTE Tx Power (dBm) | DL LTE CA Tx Power (dBm) | Tune-up |
| CA_2C           | 2        | 20       | QPSK       | 1              | 0                | 18900          | 900            | 2        | 20       | 898            | /        | /        | /              | 23.18              | 22.827                   | 24      |
| CA_5B           | 5        | 10       | QPSK       | 1              | 25               | 20525          | 2525           | 5        | 10       | 2549           | /        | /        | /              | 24.17              | 23.62                    | 25      |
| CA_38C          | 38       | 20       | QPSK       | 1              | 99               | 37850          | 37850          | 38       | 20       | 38048          | /        | /        | /              | 23.1               | 22.38                    | 23.63   |
| CA_41C          | 41       | 20       | QPSK       | 1              | 0                | 40620          | 40620          | 41       | 20       | 40671          | /        | /        | /              | 23.17              | 22.48                    | 23.63   |
| CA_7A-7A        | 7        | 20       | QPSK       | 1              | 99               | 21100          | 3100           | 7        | 20       | 2850           | /        | /        | /              | 23.21              | 22.76                    | 24      |
| CA_2A-5A        | 2        | 20       | QPSK       | 1              | 0                | 18900          | 900            | 5        | 10       | 2525           | /        | /        | /              | 23.18              | 22.86                    | 24      |
|                 | 5        | 10       | QPSK       | 1              | 25               | 20525          | 2525           | 2        | 20       | 900            | /        | /        | /              | 24.17              | 23.62                    | 25      |
| CA_2A-12A       | 2        | 20       | QPSK       | 1              | 0                | 18900          | 900            | 12       | 10       | 5095           | /        | /        | /              | 23.18              | 22.88                    | 24      |
|                 | 12       | 10       | QPSK       | 1              | 49               | 23095          | 5095           | 2        | 20       | 900            | /        | /        | /              | 24.04              | 23.84                    | 25      |
| CA_2A-17A       | 2        | 20       | QPSK       | 1              | 0                | 18900          | 900            | 17       | 10       | 5790           | /        | /        | /              | 23.18              | 22.85                    | 24      |
|                 | 17       | 10       | QPSK       | 1              | 25               | 23790          | 5790           | 2        | 20       | 900            | /        | /        | /              | 24.03              | 23.88                    | 25      |
| CA_4A-5A        | 5        | 10       | QPSK       | 1              | 25               | 20525          | 2525           | 4        | 20       | 2300           | /        | /        | /              | 24.17              | 23.62                    | 25      |
|                 | 4        | 20       | QPSK       | 1              | 0                | 20050          | 2050           | 7        | 20       | 3100           | /        | /        | /              | 22.63              | 21.67                    | 23.5    |
| CA_4A-7A        | 7        | 20       | QPSK       | 1              | 99               | 21100          | 3100           | 4        | 20       | 2300           | /        | /        | /              | 23.21              | 22.76                    | 24      |
| CA_4A-17A       | 4        | 20       | QPSK       | 1              | 0                | 20050          | 2050           | 17       | 10       | 5790           | /        | /        | /              | 22.63              | 21.67                    | 23.5    |
| CA_5A-7A        | 5        | 10       | QPSK       | 1              | 25               | 20525          | 2525           | 7        | 20       | 3100           | /        | /        | /              | 24.17              | 23.62                    | 25      |
|                 | 7        | 20       | QPSK       | 1              | 99               | 21100          | 3100           | 5        | 10       | 2525           | /        | /        | /              | 23.21              | 22.76                    | 24      |
| CA_7A-12A       | 7        | 20       | QPSK       | 1              | 99               | 21100          | 3100           | 12       | 5        | 5095           | /        | /        | /              | 23.21              | 22.76                    | 24      |
|                 | 12       | 10       | QPSK       | 1              | 49               | 23095          | 5095           | 7        | 20       | 3100           | /        | /        | /              | 24.04              | 23.84                    | 25      |
| CA_41D          | 41       | 20       | QPSK       | 1              | 0                | 40620          | 40620          | 41       | 20       | 40671          | 41       | 20       | 40869          | 23.17              | 22.31                    | 23.63   |
| CA_2A-12B       | 2        | 20       | QPSK       | 1              | 0                | 18900          | 900            | 12       | 5        | 5095           | 12       | 5        | 5143           | 23.18              | 22.84                    | 24      |
|                 | 12       | 10       | QPSK       | 1              | 49               | 23095          | 5095           | 12       | 5        | 5143           | 2        | 20       | 900            | 24.04              | 23.84                    | 25      |
| CA_4A-7C        | 4        | 20       | QPSK       | 1              | 0                | 20050          | 2050           | 7        | 20       | 3100           | 7        | 20       | 3298           | 22.63              | 21.67                    | 23.5    |
|                 | 7        | 20       | QPSK       | 1              | 99               | 21100          | 3100           | 7        | 20       | 3152           | 4        | 20       | 2300           | 23.21              | 22.76                    | 24      |
| CA_4A-12B       | 4        | 20       | QPSK       | 1              | 0                | 20050          | 2050           | 12       | 5        | 5095           | 12       | 5        | 5143           | 22.63              | 21.67                    | 23.5    |
| CA_4A-12A-12A   | 4        | 20       | QPSK       | 1              | 0                | 20050          | 2050           | 12       | 5        | 5095           | 12       | 5        | 5155           | 22.63              | 21.67                    | 23.5    |
| CA_5A-7C        | 5        | 10       | QPSK       | 1              | 25               | 20525          | 2525           | 7        | 20       | 3100           | 7        | 20       | 3298           | 24.17              | 23.62                    | 25      |
|                 | 7        | 20       | QPSK       | 1              | 99               | 21100          | 3100           | 7        | 20       | 3048           | 5        | 10       | 2525           | 23.21              | 22.76                    | 24      |

Table: Conducted power measurement results of DL CA (Main Antenna, Reduced Power Level D1&D2)

| DL LTE CA Class | PCC      |          |            |                |                  |                |                | SCC1     |          |                | SCC2     |          |                | Power              |                          |         |
|-----------------|----------|----------|------------|----------------|------------------|----------------|----------------|----------|----------|----------------|----------|----------|----------------|--------------------|--------------------------|---------|
|                 | PCC Band | BW (MHz) | Modulation | PCC UL RB size | PCC UL RB offset | PCC UL Channel | PCC DL Channel | SCC Band | BW (MHz) | SCC DL Channel | SCC Band | BW (MHz) | SCC DL Channel | LTE Tx Power (dBm) | DL LTE CA Tx Power (dBm) | Tune-up |
| CA_2C           | 2        | 20       | QPSK       | 1              | 0                | 18700          | 700            | 2        | 20       | 898            | /        | /        | /              | 22.97              | 22.35                    | 23.5    |
| CA_5B           | 5        | 10       | QPSK       | 1              | 25               | 20525          | 2525           | 5        | 10       | 2549           | /        | /        | /              | 24.17              | 23.6                     | 25      |
| CA_38C          | 38       | 20       | QPSK       | 1              | 99               | 37850          | 37850          | 38       | 20       | 38048          | /        | /        | /              | 22.51              | 21.58                    | 22.63   |
| CA_41C          | 41       | 20       | QPSK       | 1              | 0                | 40620          | 40620          | 41       | 20       | 40671          | /        | /        | /              | 23.17              | 22.48                    | 23.63   |

|               |    |    |       |   |    |       |       |    |    |       |    |    |       |       |       |       |
|---------------|----|----|-------|---|----|-------|-------|----|----|-------|----|----|-------|-------|-------|-------|
| CA_7A-7A      | 7  | 20 | 16QAM | 1 | 99 | 21350 | 3350  | 7  | 20 | 2850  | /  | /  | /     | 20.91 | 20.38 | 21.5  |
| CA_2A-5A      | 2  | 20 | QPSK  | 1 | 0  | 18700 | 700   | 5  | 10 | 2525  | /  | /  | /     | 22.97 | 22.35 | 23.5  |
|               | 5  | 10 | QPSK  | 1 | 25 | 20525 | 2525  | 2  | 20 | 900   | /  | /  | /     | 24.17 | 23.6  | 25    |
| CA_2A-12A     | 2  | 20 | QPSK  | 1 | 0  | 18700 | 700   | 12 | 10 | 5095  | /  | /  | /     | 22.97 | 22.35 | 23.5  |
|               | 12 | 10 | QPSK  | 1 | 25 | 23095 | 5095  | 2  | 20 | 900   | /  | /  | /     | 23.4  | 23.12 | 24.5  |
| CA_2A-17A     | 2  | 20 | QPSK  | 1 | 0  | 18700 | 700   | 17 | 10 | 5790  | /  | /  | /     | 22.97 | 22.35 | 23.5  |
|               | 17 | 10 | QPSK  | 1 | 25 | 23790 | 5790  | 2  | 20 | 900   | /  | /  | /     | 24.03 | 23.88 | 25    |
| CA_4A-5A      | 5  | 10 | QPSK  | 1 | 25 | 20525 | 2525  | 4  | 20 | 2300  | /  | /  | /     | 24.17 | 23.6  | 25    |
|               | 4  | 20 | QPSK  | 1 | 99 | 20175 | 2175  | 7  | 20 | 3100  | /  | /  | /     | 22.43 | 21.57 | 22.5  |
| CA_4A-7A      | 7  | 20 | 16QAM | 1 | 99 | 21350 | 3350  | 4  | 20 | 2300  | /  | /  | /     | 20.91 | 20.38 | 21.5  |
| CA_4A-17A     | 4  | 20 | QPSK  | 1 | 99 | 20175 | 2175  | 17 | 10 | 5790  | /  | /  | /     | 22.43 | 21.57 | 22.5  |
| CA_5A-7A      | 5  | 10 | QPSK  | 1 | 25 | 20525 | 2525  | 7  | 20 | 3100  | /  | /  | /     | 24.17 | 23.6  | 25    |
|               | 7  | 20 | 16QAM | 1 | 99 | 21350 | 3350  | 5  | 10 | 2525  | /  | /  | /     | 20.91 | 20.38 | 21.5  |
| CA_7A-12A     | 7  | 20 | 16QAM | 1 | 99 | 21350 | 3350  | 12 | 5  | 5095  | /  | /  | /     | 20.91 | 20.38 | 21.5  |
|               | 12 | 10 | QPSK  | 1 | 25 | 23095 | 5095  | 7  | 20 | 3100  | /  | /  | /     | 23.4  | 23.12 | 24.5  |
| CA_41D        | 41 | 20 | QPSK  | 1 | 0  | 40620 | 40620 | 41 | 20 | 40671 | 41 | 20 | 40869 | 23.17 | 22.31 | 23.63 |
| CA_2A-12B     | 2  | 20 | QPSK  | 1 | 0  | 18700 | 700   | 12 | 5  | 5095  | 12 | 5  | 5143  | 22.97 | 22.35 | 23.5  |
|               | 12 | 10 | QPSK  | 1 | 25 | 23095 | 5095  | 12 | 5  | 5143  | 2  | 20 | 900   | 23.4  | 23.12 | 24.5  |
| CA_4A-7C      | 4  | 20 | QPSK  | 1 | 99 | 20175 | 2175  | 7  | 20 | 3100  | 7  | 20 | 3298  | 22.43 | 21.57 | 22.5  |
|               | 7  | 20 | 16QAM | 1 | 99 | 21350 | 3350  | 7  | 20 | 3152  | 4  | 20 | 2300  | 20.91 | 20.38 | 21.5  |
| CA_4A-12B     | 4  | 20 | QPSK  | 1 | 99 | 20175 | 2175  | 12 | 5  | 5095  | 12 | 5  | 5143  | 22.43 | 21.57 | 22.5  |
| CA_4A-12A-12A | 4  | 20 | QPSK  | 1 | 99 | 20175 | 2175  | 12 | 5  | 5095  | 12 | 5  | 5155  | 22.43 | 21.57 | 22.5  |
| CA_5A-7C      | 5  | 10 | QPSK  | 1 | 25 | 20525 | 2525  | 7  | 20 | 3100  | 7  | 20 | 3298  | 24.17 | 23.6  | 25    |
|               | 7  | 20 | 16QAM | 1 | 99 | 21350 | 3350  | 7  | 20 | 3048  | 5  | 10 | 2525  | 20.91 | 20.38 | 21.5  |

**Table: Conducted power measurement results of DL CA (Second Antenna, Full Power)**

| DL LTE CA Class | PCC      |          |            |                |                  |                |                | SCC1     |          |                | SCC2     |          |                | Power              |                          |         |
|-----------------|----------|----------|------------|----------------|------------------|----------------|----------------|----------|----------|----------------|----------|----------|----------------|--------------------|--------------------------|---------|
|                 | PCC Band | BW (MHz) | Modulation | PCC UL RB size | PCC UL RB offset | PCC UL Channel | PCC DL Channel | SCC Band | BW (MHz) | SCC DL Channel | SCC Band | BW (MHz) | SCC DL Channel | LTE Tx Power (dBm) | DL LTE CA Tx Power (dBm) | Tune-up |
| CA_2C           | 2        | 20       | QPSK       | 1              | 50               | 19100          | 1100           | 2        | 20       | 898            | /        | /        | /              | 22.29              | 21.92                    | 23      |
| CA_5B           | 5        | 10       | QPSK       | 1              | 0                | 20600          | 2600           | 5        | 10       | 2549           | /        | /        | /              | 24.39              | 23.92                    | 25      |
| CA_38C          | 38       | 20       | QPSK       | 1              | 0                | 37850          | 37850          | 38       | 20       | 38048          | /        | /        | /              | 22                 | 21.58                    | 22.63   |
| CA_41C          | 41       | 20       | QPSK       | 1              | 50               | 40185          | 40185          | 41       | 20       | 40671          | /        | /        | /              | 22.28              | 21.98                    | 23.13   |
| CA_7A-7A        | 7        | 20       | 16QAM      | 1              | 0                | 21100          | 3100           | 7        | 20       | 3350           | /        | /        | /              | 20.21              | 19.86                    | 20.5    |
| CA_2A-5A        | 2        | 20       | QPSK       | 1              | 50               | 19100          | 1100           | 5        | 10       | 2525           | /        | /        | /              | 22.29              | 21.98                    | 23      |
|                 | 5        | 10       | QPSK       | 1              | 0                | 20600          | 2600           | 2        | 20       | 900            | /        | /        | /              | 24.39              | 23.91                    | 25      |
| CA_2A-12A       | 2        | 20       | QPSK       | 1              | 50               | 19100          | 1100           | 12       | 10       | 5090           | /        | /        | /              | 22.29              | 21.91                    | 23      |
|                 | 12       | 10       | QPSK       | 1              | 25               | 23130          | 5130           | 2        | 20       | 900            | /        | /        | /              | 24.63              | 23.96                    | 25      |
| CA_2A-17A       | 2        | 10       | QPSK       | 1              | 25               | 19150          | 1150           | 17       | 10       | 5790           | /        | /        | /              | 22.32              | 21.95                    | 23      |
|                 | 17       | 10       | 64QAM      | 1              | 25               | 23780          | 5780           | 2        | 10       | 900            | /        | /        | /              | 23.92              | 23.71                    | 25      |
| CA_4A-5A        | 5        | 10       | QPSK       | 1              | 0                | 20600          | 2600           | 4        | 20       | 2300           | /        | /        | /              | 24.39              | 23.95                    | 25      |
| CA_4A-7A        | 4        | 20       | QPSK       | 1              | 0                | 20050          | 2050           | 7        | 20       | 3100           | /        | /        | /              | 22.03              | 21.75                    | 22.8    |
|                 | 7        | 20       | 16QAM      | 1              | 0                | 21100          | 3100           | 4        | 20       | 2300           | /        | /        | /              | 20.21              | 19.81                    | 20.5    |
| CA_4A-17A       | 4        | 10       | QPSK       | 1              | 0                | 20000          | 2000           | 17       | 10       | 5790           | /        | /        | /              | 22.06              | 21.56                    | 22.8    |
| CA_5A-7A        | 5        | 10       | QPSK       | 1              | 0                | 20600          | 2600           | 7        | 20       | 3100           | /        | /        | /              | 24.39              | 23.89                    | 25      |
|                 | 7        | 20       | 16QAM      | 1              | 0                | 21100          | 3100           | 5        | 10       | 2525           | /        | /        | /              | 20.21              | 19.89                    | 20.5    |
| CA_7A-12A       | 7        | 20       | 16QAM      | 1              | 0                | 21100          | 3100           | 12       | 10       | 5095           | /        | /        | /              | 20.21              | 19.88                    | 20.5    |
|                 | 12       | 10       | QPSK       | 1              | 25               | 23130          | 5130           | 7        | 20       | 3100           | /        | /        | /              | 24.63              | 23.97                    | 25      |
| CA_41D          | 41       | 20       | QPSK       | 1              | 50               | 40185          | 40185          | 41       | 20       | 40671          | 41       | 20       | 40869          | 22.28              | 21.81                    | 23.13   |
| CA_2A-12B       | 2        | 20       | QPSK       | 1              | 50               | 19100          | 1100           | 12       | 5        | 5095           | 12       | 5        | 5143           | 22.29              | 21.82                    | 23      |
|                 | 12       | 10       | QPSK       | 1              | 25               | 23130          | 5130           | 12       | 5        | 5108           | 2        | 5        | 900            | 24.63              | 23.94                    | 25      |
| CA_4A-7C        | 4        | 20       | QPSK       | 1              | 0                | 20050          | 2050           | 7        | 20       | 3100           | 7        | 20       | 3298           | 22.03              | 21.73                    | 22.8    |
|                 | 7        | 20       | 16QAM      | 1              | 0                | 21100          | 3100           | 7        | 20       | 3298           | 4        | 20       | 2300           | 20.21              | 19.78                    | 20.5    |
| CA_4A-12B       | 4        | 20       | QPSK       | 1              | 0                | 20050          | 2050           | 12       | 5        | 5095           | 12       | 5        | 5143           | 22.03              | 21.76                    | 22.8    |
| CA_4A-12A-12A   | 4        | 20       | QPSK       | 1              | 0                | 20050          | 2050           | 12       | 5        | 5095           | 12       | 5        | 5155           | 22.03              | 21.72                    | 22.8    |
| CA_5A-7C        | 5        | 10       | QPSK       | 1              | 0                | 20600          | 2600           | 7        | 20       | 3100           | 7        | 20       | 3298           | 24.39              | 23.94                    | 25      |
|                 | 7        | 20       | 16QAM      | 1              | 0                | 21100          | 3100           | 7        | 20       | 3298           | 5        | 10       | 2525           | 20.21              | 19.85                    | 20.5    |

### 9.3.3 Conducted power measurements of LTE Downlink 4x4 MIMO

Table: Conducted power measurement results of LTE Band 7 DL 4x4 MIMO (Main Antenna, Full Power)

| LTE Band | BW (MHz) | Channel | Modulation | RB Size | RB Offset | 4x4 DL MIMO Tx Power (dBm) | Single Antenna Tx. Power (dBm) | Tune-up |
|----------|----------|---------|------------|---------|-----------|----------------------------|--------------------------------|---------|
| Band 7   | 20       | 21100   | QPSK       | 1       | 99        | 22.82                      | 23.18                          | 24      |

Table: Conducted power measurement results of LTE DL 4x4 MIMO with CA(Main Antenna, Full Power)

| DL LTE CA Class | PCC      |              |            |                |                  |                |                | SCC1                     |          |              |                | SCC2                     |          |              |                | Power                    |                             |                          |         |
|-----------------|----------|--------------|------------|----------------|------------------|----------------|----------------|--------------------------|----------|--------------|----------------|--------------------------|----------|--------------|----------------|--------------------------|-----------------------------|--------------------------|---------|
|                 | PCC Band | PCC BW (MHz) | Modulation | PCC UL RB size | PCC UL RB offset | PCC UL Channel | PCC DL Channel | DL Antenna Configuration | SCC Band | SCC BW (MHz) | SCC DL Channel | DL Antenna Configuration | SCC Band | SCC BW (MHz) | SCC DL Channel | DL Antenna Configuration | Without DL 4x4MIMO Tx Power | With DL 4x4MIMO Tx Power | Tune-up |
| CA_4A-7A        | 4        | 20           | QPSK       | 1              | 0                | 20050          | 2050           | 2*2 MIMO                 | 7        | 20           | 3100           | 4*4 MIMO                 | /        | /            | /              | /                        | 22.63                       | 22.54                    | 23.5    |
|                 | 7        | 20           | QPSK       | 1              | 99               | 21100          | 3100           | 4*4 MIMO                 | 4        | 20           | 2300           | 2*2 MIMO                 | /        | /            | /              | /                        | 23.18                       | 23.06                    | 24      |
| CA_5A-7A        | 5        | 10           | QPSK       | 1              | 25               | 20525          | 2525           | 2*2 MIMO                 | 7        | 20           | 3100           | 4*4 MIMO                 | /        | /            | /              | /                        | 24.17                       | 24.16                    | 25      |
|                 | 7        | 20           | QPSK       | 1              | 99               | 21100          | 3100           | 4*4 MIMO                 | 5        | 10           | 2525           | 2*2 MIMO                 | /        | /            | /              | /                        | 23.18                       | 23.15                    | 24      |
| CA_7A- 12A      | 7        | 20           | QPSK       | 1              | 99               | 21100          | 3100           | 4*4 MIMO                 | 12       | 5            | 5095           | 2*2 MIMO                 | /        | /            | /              | /                        | 23.18                       | 23.14                    | 24      |
|                 | 12       | 10           | QPSK       | 1              | 49               | 23095          | 5095           | 4*4 MIMO                 | 7        | 20           | 3100           | 4*4 MIMO                 | /        | /            | /              | /                        | 24.04                       | 23.9                     | 25      |
| CA_4A- 7C       | 4        | 20           | QPSK       | 1              | 0                | 20050          | 2050           | 2*2 MIMO                 | 7        | 20           | 3100           | 4*4 MIMO                 | 7        | 20           | 3298           | 4*4 MIMO                 | 22.63                       | 22.61                    | 23.5    |
|                 | 7        | 20           | QPSK       | 1              | 99               | 21100          | 3100           | 4*4 MIMO                 | 7        | 20           | 3152           | 4*4 MIMO                 | 4        | 20           | 2300           | 2*2 MIMO                 | 23.18                       | 23.14                    | 24      |
| CA_5A- 7C       | 5        | 10           | QPSK       | 1              | 25               | 20525          | 2525           | 2*2 MIMO                 | 7        | 20           | 3100           | 4*4 MIMO                 | 7        | 20           | 3298           | 4*4 MIMO                 | 24.17                       | 24.12                    | 25      |
|                 | 7        | 20           | QPSK       | 1              | 99               | 21100          | 3100           | 4*4 MIMO                 | 7        | 20           | 3152           | 4*4 MIMO                 | 5        | 10           | 2525           | 2*2 MIMO                 | 23.18                       | 23.1                     | 24      |

Table: Conducted power measurement results of LTE Band 7 DL 4x4 MIMO (Main Antenna, Reduced Power Level D1&D2)

| LTE Band | BW (MHz) | Channel | Modulation | RB Size | RB Offset | 4x4 DL MIMO Tx Power (dBm) | Single Antenna Tx. Power (dBm) | Tune-up |
|----------|----------|---------|------------|---------|-----------|----------------------------|--------------------------------|---------|
| Band 7   | 20       | 21350   | 16QAM      | 1       | 99        | 20.74                      | 20.91                          | 21.5    |

Table: Conducted power measurement results of LTE DL 4x4 MIMO with CA(Main Antenna, Reduced Power Level D1&D2)

| DL LTE CA Class | PCC      |              |            |                |                  |                |                |                          | SCC1     |              |                |                          | SCC2     |              |                |                          | Power                       |                          |         |
|-----------------|----------|--------------|------------|----------------|------------------|----------------|----------------|--------------------------|----------|--------------|----------------|--------------------------|----------|--------------|----------------|--------------------------|-----------------------------|--------------------------|---------|
|                 | PCC Band | PCC BW(M Hz) | Modulation | PCC UL RB size | PCC UL RB offset | PCC UL Channel | PCC DL Channel | DL Antenna Configuration | SCC Band | SCC BW(M Hz) | SCC DL Channel | DL Antenna Configuration | SCC Band | SCC BW (MHz) | SCC DL Channel | DL Antenna Configuration | Without DL 4x4MIMO Tx Power | With DL 4x4MIMO Tx Power | Tune-up |
| CA_4A-7A        | 4        | 20           | QPSK       | 1              | 99               | 20175          | 2175           | 2*2 MIMO                 | 7        | 20           | 3100           | 4*4 MIMO                 | /        | /            | /              | /                        | 22.43                       | 22.35                    | 22.5    |
|                 | 7        | 20           | 16QAM      | 1              | 99               | 21350          | 3350           | 4*4 MIMO                 | 4        | 20           | 2300           | 2*2 MIMO                 | /        | /            | /              | /                        | 20.91                       | 20.85                    | 21.5    |
| CA_5A-7A        | 5        | 10           | QPSK       | 1              | 25               | 20525          | 2525           | 2*2 MIMO                 | 7        | 20           | 3100           | 4*4 MIMO                 | /        | /            | /              | /                        | 24.17                       | 24.15                    | 25      |
|                 | 7        | 20           | 16QAM      | 1              | 99               | 21350          | 3350           | 4*4 MIMO                 | 5        | 10           | 2525           | 2*2 MIMO                 | /        | /            | /              | /                        | 20.91                       | 20.89                    | 21.5    |
| CA_7A- 12A      | 7        | 20           | 16QAM      | 1              | 99               | 21350          | 3350           | 4*4 MIMO                 | 12       | 5            | 5095           | 2*2 MIMO                 | /        | /            | /              | /                        | 20.91                       | 20.82                    | 21.5    |
|                 | 12       | 10           | QPSK       | 1              | 25               | 23095          | 5095           | 4*4 MIMO                 | 7        | 20           | 3100           | 4*4 MIMO                 | /        | /            | /              | /                        | 23.4                        | 23.32                    | 24.5    |
| CA_4A- 7C       | 4        | 20           | QPSK       | 1              | 99               | 20175          | 2175           | 2*2 MIMO                 | 7        | 20           | 3100           | 4*4 MIMO                 | 7        | 20           | 3298           | 4*4 MIMO                 | 22.43                       | 22.32                    | 22.5    |
|                 | 7        | 20           | 16QAM      | 1              | 99               | 21350          | 3350           | 4*4 MIMO                 | 7        | 20           | 3152           | 4*4 MIMO                 | 4        | 20           | 2300           | 2*2 MIMO                 | 20.91                       | 20.89                    | 21.5    |
| CA_5A- 7C       | 5        | 10           | QPSK       | 1              | 25               | 20525          | 2525           | 2*2 MIMO                 | 7        | 20           | 3100           | 4*4 MIMO                 | 7        | 20           | 3298           | 4*4 MIMO                 | 24.17                       | 24.07                    | 25      |
|                 | 7        | 20           | 16QAM      | 1              | 99               | 21350          | 3350           | 4*4 MIMO                 | 7        | 20           | 3152           | 4*4 MIMO                 | 5        | 10           | 2525           | 2*2 MIMO                 | 20.91                       | 20.79                    | 21.5    |



Table: Conducted power measurement results of LTE Band 7 DL 4x4 MIMO (Second Antenna, Full Power)

| LTE Band | BW (MHz) | Channel | Modulation | RB Size | RB Offset | 4x4 DL MIMO Tx Power (dBm) | Single Antenna Tx. Power (dBm) | Tune-up |
|----------|----------|---------|------------|---------|-----------|----------------------------|--------------------------------|---------|
| Band 7   | 20       | 21100   | 16QAM      | 1       | 0         | 19.44                      | 20.21                          | 20.5    |

Table: Conducted power measurement results of LTE DL 4x4 MIMO with CA(Second Antenna, Full Power)

| DL LTE CA Class | PCC      |             |            |                |                  |                |                |                          | SCC1     |             |                |                          | SCC2     |              |                |                          | Power                       |                          |         |
|-----------------|----------|-------------|------------|----------------|------------------|----------------|----------------|--------------------------|----------|-------------|----------------|--------------------------|----------|--------------|----------------|--------------------------|-----------------------------|--------------------------|---------|
|                 | PCC Band | PCC BW(MHz) | Modulation | PCC UL RB size | PCC UL RB offset | PCC UL Channel | PCC DL Channel | DL Antenna Configuration | SCC Band | SCC BW(MHz) | SCC DL Channel | DL Antenna Configuration | SCC Band | SCC BW (MHz) | SCC DL Channel | DL Antenna Configuration | Without DL 4x4MIMO Tx Power | With DL 4x4MIMO Tx Power | Tune-up |
| CA_4A-7A        | 4        | 20          | QPSK       | 1              | 0                | 20050          | 2050           | 2*2 MIMO                 | 7        | 20          | 3100           | 4*4 MIMO                 | /        | /            | /              | /                        | 22.03                       | 21.9                     | 22.8    |
|                 | 7        | 20          | 16QAM      | 1              | 0                | 21100          | 3100           | 4*4 MIMO                 | 4        | 20          | 2300           | 2*2 MIMO                 | /        | /            | /              | /                        | 20.21                       | 20.15                    | 20.5    |
| CA_5A-7A        | 5        | 10          | QPSK       | 1              | 0                | 20600          | 2600           | 2*2 MIMO                 | 7        | 20          | 3100           | 4*4 MIMO                 | /        | /            | /              | /                        | 24.39                       | 24.36                    | 25      |
|                 | 7        | 20          | 16QAM      | 1              | 0                | 21100          | 3100           | 4*4 MIMO                 | 5        | 10          | 2525           | 2*2 MIMO                 | /        | /            | /              | /                        | 20.21                       | 20.06                    | 20.5    |
| CA_7A-12A       | 7        | 20          | 16QAM      | 1              | 0                | 21100          | 3100           | 4*4 MIMO                 | 12       | 10          | 5095           | 2*2 MIMO                 | /        | /            | /              | /                        | 20.21                       | 20.17                    | 20.5    |
|                 | 12       | 10          | QPSK       | 1              | 25               | 23130          | 5130           | 4*4 MIMO                 | 7        | 20          | 3100           | 4*4 MIMO                 | /        | /            | /              | /                        | 24.63                       | 24.54                    | 25      |
| CA_4A-7C        | 4        | 20          | QPSK       | 1              | 0                | 20050          | 2050           | 2*2 MIMO                 | 7        | 20          | 3100           | 4*4 MIMO                 | 7        | 20           | 3298           | 4*4 MIMO                 | 22.03                       | 22.02                    | 22.8    |
|                 | 7        | 20          | 16QAM      | 1              | 0                | 21100          | 3100           | 4*4 MIMO                 | 7        | 20          | 3298           | 4*4 MIMO                 | 4        | 20           | 2300           | 2*2 MIMO                 | 20.21                       | 20.13                    | 20.5    |
| CA_5A-7C        | 5        | 10          | QPSK       | 1              | 0                | 20600          | 2600           | 2*2 MIMO                 | 7        | 20          | 3100           | 4*4 MIMO                 | 7        | 20           | 3298           | 4*4 MIMO                 | 24.39                       | 24.38                    | 25      |
|                 | 7        | 20          | 16QAM      | 1              | 0                | 21100          | 3100           | 4*4 MIMO                 | 7        | 20          | 3298           | 4*4 MIMO                 | 5        | 10           | 2525           | 2*2 MIMO                 | 20.21                       | 20.2                     | 20.5    |

### 9.3.4 Uplink LTE CA

For Intra-band uplink LTE CA measurement (Uplink CA\_7C, CA\_38C, CA\_41C), the following procedures applied:

Maximum output power is measured for each UL CA configuration for the required test channels:

- UL PCC configuration is determined by the required test channel
- SCC and subsequent CCs are added alternatively to either side of the PCC or within the transmission band for channels at the ends of a frequency band.

The MPR information for Intra-band uplink LTE CA is as below:

Table: MPR information for Uplink intra-band contiguous CA(QPSK and 16QAM)

For intra-band contiguous carrier aggregation the allowed Maximum Power Reduction (MPR) for the maximum output power in Table 6.2.2A.0-2 due to higher order modulation and contiguously allocated transmissions (resource blocks) is specified in Table 6.2.3A.1.3-1. In case the modulation format is different on different component carriers then the MPR is determined by the rules applied to higher order of those modulations.

| Table 6.2.3A.1.3-1: Maximum Power Reduction (MPR) for Power Class 3 |                            |               |                |                |               |                |                 |          |
|---------------------------------------------------------------------|----------------------------|---------------|----------------|----------------|---------------|----------------|-----------------|----------|
| Modulation                                                          | CA bandwidth Class B and C |               |                |                |               |                |                 | MPR (dB) |
|                                                                     | 25 RB + 50 RB              | 50 RB + 50 RB | 25 RB + 100 RB | 50 RB + 100 RB | 75 RB + 75 RB | 75 RB + 100 RB | 100 RB + 100 RB |          |
| QPSK                                                                | > 8 and ≤ 25               | > 12 and ≤ 50 | > 8 and ≤ 25   | > 12 and ≤ 50  | > 16 and ≤ 75 | > 16 and ≤ 75  | > 18 and ≤ 100  | ≤ 1      |
| QPSK                                                                | > 25                       | > 50          | > 25           | > 50           | > 75          | > 75           | > 100           | ≤ 2      |
| 16 QAM                                                              | ≤ 8                        | ≤ 12          | ≤ 8            | ≤ 12           | ≤ 16          | ≤ 16           | ≤ 18            | ≤ 1      |
| 16 QAM                                                              | > 8 and ≤ 25               | > 12 and ≤ 50 | > 8 and ≤ 25   | > 12 and ≤ 50  | > 16 and ≤ 75 | > 16 and ≤ 75  | > 18 and ≤ 100  | ≤ 2      |
| 16 QAM                                                              | > 25                       | > 50          | > 25           | > 50           | > 75          | > 75           | > 100           | ≤ 3      |

Table: MPR information for Uplink intra-band contiguous CA(64QAM)

For intra-band contiguous carrier aggregation the allowed Maximum Power Reduction (MPR) for the maximum output power in Table 6.2.2A.0-2 due to higher order modulation and contiguously aggregated transmit bandwidth configuration (resource blocks) is specified in Table 6.2.3A.1.3-1. In case the modulation format is different on different component carriers then the MPR is determined by the rules applied to higher order of those modulations.

| Table 6.2.3A.1.3-1: Maximum Power Reduction (MPR) for Power Class 3 |                                                        |                                                         |                                                        |                                                         |                                                         |                                                         |                                                         |          |
|---------------------------------------------------------------------|--------------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------|----------|
| Modulation                                                          | CA bandwidth Class B and C                             |                                                         |                                                        |                                                         |                                                         |                                                         |                                                         | MPR (dB) |
|                                                                     | 25 RB + 50 RB                                          | 50 RB + 50 RB                                           | 25 RB + 100 RB                                         | 50 RB + 100 RB                                          | 75 RB + 75 RB                                           | 75 RB + 100 RB                                          | 100 RB + 100 RB                                         |          |
| 64 QAM                                                              | ≤ 8 and allocation wholly contained within a single CC | ≤ 12 and allocation wholly contained within a single CC | ≤ 8 and allocation wholly contained within a single CC | ≤ 12 and allocation wholly contained within a single CC | ≤ 16 and allocation wholly contained within a single CC | ≤ 16 and allocation wholly contained within a single CC | ≤ 18 and allocation wholly contained within a single CC | ≤ 2      |
| 64 QAM                                                              | > 8 or allocation extends across two CC's              | > 12 or allocation extends across two CC's              | > 8 or allocation extends across two CC's              | > 12 or allocation extends across two CC's              | > 16 or allocation extends across two CC's              | > 16 or allocation extends across two CC's              | > 18 or allocation extends across two CC's              | ≤ 3      |

The UL CA conducted power measurements results are as below:

| Antenna        | CA Combination | Test Scenario                                                                                  | Mod#. | PCC UL |          |       |    |        |                | SCC UL |          |       |    |        | power           |         |
|----------------|----------------|------------------------------------------------------------------------------------------------|-------|--------|----------|-------|----|--------|----------------|--------|----------|-------|----|--------|-----------------|---------|
|                |                |                                                                                                |       | BAND   | BW (MHz) | CH#.  | RB | offset | PCC DL channel | BAND   | BW (MHz) | CH#.  | RB | offset | Conducted Power | Tune-up |
| Second Antenna | CA_7C          | receiver off                                                                                   | QPSK  | 7      | 20       | 20850 | 1  | 99     | 2850           | 7      | 20       | 21048 | 1  | 0      | 19.43           | 20.5    |
|                |                |                                                                                                | QPSK  | 7      | 20       | 21100 | 1  | 99     | 3100           | 7      | 20       | 21298 | 1  | 0      | 19.52           | 20.5    |
|                |                |                                                                                                | QPSK  | 7      | 20       | 21100 | 1  | 0      | 3100           | 7      | 20       | 20902 | 1  | 99     | 19.34           | 20.5    |
|                |                |                                                                                                | QPSK  | 7      | 20       | 21350 | 1  | 0      | 3350           | 7      | 20       | 21152 | 1  | 99     | 19.63           | 20.5    |
|                | CA_7C          | reciver on                                                                                     | QPSK  | 7      | 20       | 20850 | 1  | 99     | 2850           | 7      | 20       | 21048 | 1  | 0      | 15.4            | 16.5    |
|                |                |                                                                                                | QPSK  | 7      | 20       | 21100 | 1  | 99     | 3100           | 7      | 20       | 21298 | 1  | 0      | 15.37           | 16.5    |
|                |                |                                                                                                | QPSK  | 7      | 20       | 21100 | 1  | 0      | 3100           | 7      | 20       | 20902 | 1  | 99     | 15.44           | 16.5    |
|                |                |                                                                                                | QPSK  | 7      | 20       | 21350 | 1  | 0      | 3350           | 7      | 20       | 21152 | 1  | 99     | 15.58           | 16.5    |
| Main Antenna   | CA_7C          | reciver on/Receiver off+SAR sensor on Level D7<br>Sensor off+Hotspot off                       | QPSK  | 7      | 20       | 20850 | 1  | 99     | 2850           | 7      | 20       | 21048 | 1  | 0      | 22.6            | 24      |
|                |                |                                                                                                |       | 7      | 20       | 21100 | 1  | 99     | 3100           | 7      | 20       | 21298 | 1  | 0      | 22.7            | 24      |
|                |                |                                                                                                |       | 7      | 20       | 21100 | 1  | 0      | 3100           | 7      | 20       | 20902 | 1  | 99     | 22.68           | 24      |
|                |                |                                                                                                |       | 7      | 20       | 21350 | 1  | 0      | 3350           | 7      | 20       | 21152 | 1  | 99     | 23.03           | 24      |
|                | CA_7C          | Receiver off+SAR sensor on Level D1&D2                                                         | QPSK  | 7      | 20       | 20850 | 1  | 99     | 2850           | 7      | 20       | 21048 | 1  | 0      | 20.3            | 21.5    |
|                |                |                                                                                                | QPSK  | 7      | 20       | 21100 | 1  | 99     | 3100           | 7      | 20       | 21298 | 1  | 0      | 20.62           | 21.5    |
|                |                |                                                                                                | QPSK  | 7      | 20       | 21100 | 1  | 0      | 3100           | 7      | 20       | 20902 | 1  | 99     | 20.37           | 21.5    |
|                |                |                                                                                                | QPSK  | 7      | 20       | 21350 | 1  | 0      | 3350           | 7      | 20       | 21152 | 1  | 99     | 20.63           | 21.5    |
|                | CA_7C          | Receiver off+SAR sensor on Level D3                                                            | QPSK  | 7      | 20       | 20850 | 1  | 99     | 2850           | 7      | 20       | 21048 | 1  | 0      | 21.27           | 22.5    |
|                |                |                                                                                                | QPSK  | 7      | 20       | 21100 | 1  | 99     | 3100           | 7      | 20       | 21298 | 1  | 0      | 21.64           | 22.5    |
|                |                |                                                                                                | QPSK  | 7      | 20       | 21100 | 1  | 0      | 3100           | 7      | 20       | 20902 | 1  | 99     | 21.42           | 22.5    |
|                |                |                                                                                                | QPSK  | 7      | 20       | 21350 | 1  | 0      | 3350           | 7      | 20       | 21152 | 1  | 99     | 21.69           | 22.5    |
|                | CA_7C          | Hotspot on+Receiver on/Hotspot on+Receiver off+SAR sensor on Level D7<br>sensor off+hotspot on | QPSK  | 7      | 20       | 20850 | 1  | 99     | 2850           | 7      | 20       | 21048 | 1  | 0      | 19.91           | 20.5    |
|                |                |                                                                                                | QPSK  | 7      | 20       | 21100 | 1  | 99     | 3100           | 7      | 20       | 21298 | 1  | 0      | 20.4            | 20.5    |
|                |                |                                                                                                | QPSK  | 7      | 20       | 21100 | 1  | 0      | 3100           | 7      | 20       | 20902 | 1  | 99     | 19.96           | 20.5    |
|                |                |                                                                                                | QPSK  | 7      | 20       | 21350 | 1  | 0      | 3350           | 7      | 20       | 21152 | 1  | 99     | 20.42           | 20.5    |
|                | CA_7C          | Hotspot on+Receiver off+SAR sensor on Level D1&D2                                              | QPSK  | 7      | 20       | 20850 | 1  | 99     | 2850           | 7      | 20       | 21048 | 1  | 0      | 16.61           | 18      |
|                |                |                                                                                                | QPSK  | 7      | 20       | 21100 | 1  | 99     | 3100           | 7      | 20       | 21298 | 1  | 0      | 17.1            | 18      |
|                |                |                                                                                                | QPSK  | 7      | 20       | 21100 | 1  | 0      | 3100           | 7      | 20       | 20902 | 1  | 99     | 16.66           | 18      |
|                |                |                                                                                                | QPSK  | 7      | 20       | 21350 | 1  | 0      | 3350           | 7      | 20       | 21152 | 1  | 99     | 17.12           | 18      |
|                | CA_7C          | Hotspot on+Receiver off+SAR sensor on Level D3                                                 | QPSK  | 7      | 20       | 20850 | 1  | 99     | 2850           | 7      | 20       | 21048 | 1  | 0      | 17.74           | 19      |
|                |                |                                                                                                | QPSK  | 7      | 20       | 21100 | 1  | 99     | 3100           | 7      | 20       | 21298 | 1  | 0      | 18.06           | 19      |
|                |                |                                                                                                | QPSK  | 7      | 20       | 21100 | 1  | 0      | 3100           | 7      | 20       | 20902 | 1  | 99     | 17.77           | 19      |
|                |                |                                                                                                | QPSK  | 7      | 20       | 21350 | 1  | 0      | 3350           | 7      | 20       | 21152 | 1  | 99     | 18.12           | 19      |
| Second Antenna | CA_38C         | Receiver on                                                                                    | QPSK  | 38     | 20       | 37850 | 1  | 99     | 37850          | 38     | 20       | 38048 | 1  | 0      | 17.08           | 18.13   |
|                |                |                                                                                                | QPSK  | 38     | 20       | 38150 | 1  | 0      | 38150          | 38     | 20       | 37952 | 1  | 99     | 17.15           | 18.13   |
|                | CA_38C         | Receiver off                                                                                   | QPSK  | 38     | 20       | 37850 | 1  | 99     | 37850          | 38     | 20       | 38048 | 1  | 0      | 21.18           | 22.63   |
|                |                |                                                                                                | QPSK  | 38     | 20       | 38150 | 1  | 0      | 38150          | 38     | 20       | 37952 | 1  | 99     | 21.14           | 22.63   |

|                |        |                                                                                |      |    |    |       |   |    |       |    |    |       |   |    |       |       |
|----------------|--------|--------------------------------------------------------------------------------|------|----|----|-------|---|----|-------|----|----|-------|---|----|-------|-------|
| Main Antenna   | CA_38C | Receiver on/Receiver off+SAR sensor on Level D3&D7                             | QPSK | 38 | 20 | 37850 | 1 | 99 | 37850 | 38 | 20 | 38048 | 1 | 0  | 22.88 | 23.63 |
|                |        |                                                                                | QPSK | 38 | 20 | 38150 | 1 | 0  | 38150 | 38 | 20 | 37952 | 1 | 99 | 22.85 | 23.63 |
|                | CA_38C | Receiver off+SAR sensor on Level D1&D2                                         | QPSK | 38 | 20 | 37850 | 1 | 99 | 37850 | 38 | 20 | 38048 | 1 | 0  | 22.19 | 22.63 |
|                |        |                                                                                | QPSK | 38 | 20 | 38150 | 1 | 0  | 38150 | 38 | 20 | 37952 | 1 | 99 | 22.16 | 22.63 |
|                | CA_38C | Hotspot on+Receiver on/Hotspot on+Receiver off+SAR sensor on Level D3&D7       | QPSK | 38 | 20 | 37850 | 1 | 99 | 37850 | 38 | 20 | 38048 | 1 | 0  | 19.63 | 21.63 |
|                |        |                                                                                | QPSK | 38 | 20 | 38150 | 1 | 0  | 38150 | 38 | 20 | 37952 | 1 | 99 | 19.69 | 21.63 |
|                | CA_38C | Hotspot on+Receiver off+SAR sensor on Level D1&D2                              | QPSK | 38 | 20 | 37850 | 1 | 99 | 37850 | 38 | 20 | 38048 | 1 | 0  | 19.63 | 20.63 |
|                |        |                                                                                | QPSK | 38 | 20 | 38150 | 1 | 0  | 38150 | 38 | 20 | 37952 | 1 | 99 | 19.61 | 20.63 |
| Second Antenna | CA_41C | Receiver off                                                                   | QPSK | 41 | 20 | 40140 | 1 | 99 | 40140 | 41 | 20 | 40338 | 1 | 0  | 21.55 | 22.13 |
|                |        |                                                                                | QPSK | 41 | 20 | 40473 | 1 | 99 | 40473 | 41 | 20 | 40671 | 1 | 0  | 21.48 | 22.13 |
|                |        |                                                                                | QPSK | 41 | 20 | 40473 | 1 | 0  | 40473 | 41 | 20 | 40275 | 1 | 99 | 21.51 | 22.13 |
|                |        |                                                                                | QPSK | 41 | 20 | 40807 | 1 | 99 | 40807 | 41 | 20 | 41005 | 1 | 0  | 21.29 | 22.13 |
|                |        |                                                                                | QPSK | 41 | 20 | 40807 | 1 | 0  | 40807 | 41 | 20 | 40609 | 1 | 99 | 21.33 | 22.13 |
|                |        |                                                                                | QPSK | 41 | 20 | 41140 | 1 | 0  | 41140 | 41 | 20 | 40942 | 1 | 99 | 21.32 | 22.13 |
|                | CA_41C | Receiver on                                                                    | QPSK | 41 | 20 | 40140 | 1 | 99 | 40140 | 41 | 20 | 40338 | 1 | 0  | 16.65 | 17.13 |
|                |        |                                                                                | QPSK | 41 | 20 | 40473 | 1 | 99 | 40473 | 41 | 20 | 40671 | 1 | 0  | 16.44 | 17.13 |
|                |        |                                                                                | QPSK | 41 | 20 | 40473 | 1 | 0  | 40473 | 41 | 20 | 40275 | 1 | 99 | 16.64 | 17.13 |
|                |        |                                                                                | QPSK | 41 | 20 | 40807 | 1 | 99 | 40807 | 41 | 20 | 41005 | 1 | 0  | 16.22 | 17.13 |
|                |        |                                                                                | QPSK | 41 | 20 | 40807 | 1 | 0  | 40807 | 41 | 20 | 40609 | 1 | 99 | 16.35 | 17.13 |
|                |        |                                                                                | QPSK | 41 | 20 | 41140 | 1 | 0  | 41140 | 41 | 20 | 40942 | 1 | 99 | 16.43 | 17.13 |
| Main Antenna   | CA_41C | Receiver on/Receiver off+SAR sensor on Level D1&D2&D3&D7                       | QPSK | 41 | 20 | 40140 | 1 | 99 | 40140 | 41 | 20 | 40338 | 1 | 0  | 21.57 | 22.63 |
|                |        |                                                                                | QPSK | 41 | 20 | 40473 | 1 | 99 | 40473 | 41 | 20 | 40671 | 1 | 0  | 21.84 | 22.63 |
|                |        |                                                                                | QPSK | 41 | 20 | 40473 | 1 | 0  | 40473 | 41 | 20 | 40275 | 1 | 99 | 21.69 | 22.63 |
|                |        |                                                                                | QPSK | 41 | 20 | 40807 | 1 | 99 | 40807 | 41 | 20 | 41005 | 1 | 0  | 21.74 | 22.63 |
|                |        |                                                                                | QPSK | 41 | 20 | 40807 | 1 | 0  | 40807 | 41 | 20 | 40609 | 1 | 99 | 21.83 | 22.63 |
|                |        |                                                                                | QPSK | 41 | 20 | 41140 | 1 | 0  | 41140 | 41 | 20 | 40942 | 1 | 99 | 21.96 | 22.63 |
|                | CA_41C | Hotspot on+Receiver on/Hotspot on+Receiver off+SAR sensor on Level D1&D2&D3&D7 | QPSK | 41 | 20 | 40140 | 1 | 99 | 40140 | 41 | 20 | 40338 | 1 | 0  | 20.2  | 21.13 |
|                |        |                                                                                | QPSK | 41 | 20 | 40473 | 1 | 99 | 40473 | 41 | 20 | 40671 | 1 | 0  | 19.86 | 21.13 |
|                |        |                                                                                | QPSK | 41 | 20 | 40473 | 1 | 0  | 40473 | 41 | 20 | 40275 | 1 | 99 | 20.12 | 21.13 |
|                |        |                                                                                | QPSK | 41 | 20 | 40807 | 1 | 99 | 40807 | 41 | 20 | 41005 | 1 | 0  | 20.67 | 21.13 |
|                |        |                                                                                | QPSK | 41 | 20 | 40807 | 1 | 0  | 40807 | 41 | 20 | 40609 | 1 | 99 | 20.87 | 21.13 |
|                |        |                                                                                | QPSK | 41 | 20 | 41140 | 1 | 0  | 41140 | 41 | 20 | 40942 | 1 | 99 | 20.14 | 21.13 |

Note: For uplink CA, additional SAR test is only required on the uplink CA configurations with 2 component carriers downlink. Additional SAR test is not required for uplink CA configurations with 3~4 component carriers downlink because the highest UL CA output power configuration with 3~4 component carriers downlink is < 1/4 dB higher than the same UL CA output power configuration with 2 component carriers downlink.

## 9.4 WLAN Mode

### FCC

| Wi-Fi 2.4G<br>(REC On) |                        | Channel<br>/Frequency(MHz) | Maximum Output Power (dBm) |       |
|------------------------|------------------------|----------------------------|----------------------------|-------|
| Antenna                | Mode                   |                            | Tune-up                    | Meas. |
| Antenna 1              | 802.11b<br>(1M)        | 1/2412                     | 13.00                      | 12.59 |
|                        |                        | 2/2417                     | 13.00                      | 12.74 |
|                        |                        | 3/2422                     | 13.00                      | 12.72 |
|                        |                        | 4/2427                     | 13.00                      | 12.57 |
|                        |                        | 5/2432                     | 13.00                      | 12.54 |
|                        |                        | 6/2437                     | 13.00                      | 12.85 |
|                        |                        | 7/2442                     | 13.00                      | 12.13 |
|                        |                        | 8/2447                     | 13.00                      | 12.56 |
|                        |                        | 9/2452                     | 13.00                      | 12.36 |
|                        |                        | 10/2457                    | 13.00                      | 12.32 |
|                        |                        | 11/2462                    | 13.00                      | 12.13 |
|                        | 802.11g<br>(6M)        | 1/2412                     | 11.50                      | 10.60 |
|                        |                        | 2/2417                     | 11.50                      | 10.68 |
|                        |                        | 3/2422                     | 13.00                      | 12.22 |
|                        |                        | 4/2427                     | 13.00                      | 12.09 |
|                        |                        | 5/2432                     | 13.00                      | 12.08 |
|                        |                        | 6/2437                     | 13.00                      | 12.18 |
|                        |                        | 7/2442                     | 13.00                      | 12.05 |
|                        |                        | 8/2447                     | 13.00                      | 12.07 |
|                        |                        | 9/2452                     | 13.00                      | 12.00 |
|                        |                        | 10/2457                    | 10.00                      | 9.15  |
|                        |                        | 11/2462                    | 8.50                       | 7.08  |
|                        | 802.11n-HT20<br>(MCS0) | 1/2412                     | 11.50                      | 10.02 |
|                        |                        | 2/2417                     | 11.50                      | 10.12 |
|                        |                        | 3/2422                     | 13.00                      | 11.67 |
|                        |                        | 4/2427                     | 13.00                      | 11.65 |
|                        |                        | 5/2432                     | 13.00                      | 11.72 |
|                        |                        | 6/2437                     | 13.00                      | 11.81 |
|                        |                        | 7/2442                     | 13.00                      | 11.75 |
|                        |                        | 8/2447                     | 13.00                      | 11.73 |
|                        |                        | 9/2452                     | 13.00                      | 11.59 |
|                        |                        | 10/2457                    | 10.00                      | 8.70  |
|                        |                        | 11/2462                    | 8.50                       | 6.57  |

|           |                        |         |       |       |
|-----------|------------------------|---------|-------|-------|
|           | 802.11n-HT40<br>(MCS0) | 3/2422  | 7.00  | 5.04  |
|           |                        | 4/2427  | 8.50  | 6.60  |
|           |                        | 5/2432  | 13.00 | 11.68 |
|           |                        | 6/2437  | 13.00 | 12.53 |
|           |                        | 7/2442  | 8.00  | 6.02  |
|           |                        | 8/2447  | 7.00  | 5.09  |
|           |                        | 9/2452  | 6.50  | 4.56  |
|           |                        | 10/2457 | 8.00  | 6.08  |
|           |                        | 11/2462 | 8.00  | 6.09  |
| Antenna 2 | 802.11b<br>(1M)        | 1/2412  | 13.00 | 11.62 |
|           |                        | 2/2417  | 13.00 | 11.95 |
|           |                        | 3/2422  | 13.00 | 12.16 |
|           |                        | 4/2427  | 10.00 | 9.40  |
|           |                        | 5/2432  | 8.50  | 7.19  |
|           |                        | 6/2437  | 11.50 | 10.06 |
|           |                        | 7/2442  | 11.50 | 10.02 |
|           |                        | 8/2447  | 13.00 | 11.59 |
|           |                        | 9/2452  | 13.00 | 12.12 |
|           |                        | 10/2457 | 13.00 | 11.94 |
|           |                        | 11/2462 | 13.00 | 11.98 |
|           | 802.11g<br>(6M)        | 1/2412  | 13.00 | 11.83 |
|           |                        | 2/2417  | 13.00 | 12.02 |
|           |                        | 3/2422  | 13.00 | 12.28 |
|           |                        | 4/2427  | 10.00 | 9.24  |
|           |                        | 5/2432  | 8.50  | 7.03  |
|           |                        | 6/2437  | 7.00  | 5.61  |
|           |                        | 7/2442  | 8.50  | 7.12  |
|           |                        | 8/2447  | 13.00 | 12.31 |
|           |                        | 9/2452  | 13.00 | 12.25 |
|           |                        | 10/2457 | 8.00  | 6.56  |
|           |                        | 11/2462 | 7.00  | 5.52  |
|           | 802.11n-HT20<br>(MCS0) | 1/2412  | 6.50  | 5.08  |
|           |                        | 2/2417  | 8.00  | 6.62  |
|           |                        | 3/2422  | 8.00  | 6.58  |
|           |                        | 4/2427  | 13.00 | 11.62 |
|           |                        | 5/2432  | 13.00 | 11.95 |
|           |                        | 6/2437  | 13.00 | 12.16 |
|           |                        | 7/2442  | 10.00 | 9.40  |
|           |                        | 8/2447  | 8.50  | 7.19  |
|           |                        | 9/2452  | 11.50 | 10.06 |

|  |                        |         |       |       |
|--|------------------------|---------|-------|-------|
|  |                        | 10/2457 | 11.50 | 10.02 |
|  |                        | 11/2462 | 13.00 | 11.59 |
|  | 802.11n-HT40<br>(MCS0) | 3/2422  | 13.00 | 12.12 |
|  |                        | 4/2427  | 13.00 | 11.94 |
|  |                        | 5/2432  | 13.00 | 11.98 |
|  |                        | 6/2437  | 13.00 | 11.83 |
|  |                        | 7/2442  | 13.00 | 12.02 |
|  |                        | 8/2447  | 13.00 | 12.28 |
|  |                        | 9/2452  | 10.00 | 9.24  |
|  |                        | 10/2457 | 8.50  | 7.03  |
|  |                        | 11/2462 | 7.00  | 5.61  |

| Wi-Fi 2.4G<br>(REC On) |                            | Maximum Output Power (dBm) |       |         |       |         |       |
|------------------------|----------------------------|----------------------------|-------|---------|-------|---------|-------|
| Mode                   | Channel<br>/Frequency(MHz) | MIMO                       |       | Ant1    |       | Ant2    |       |
|                        |                            | Tune-up                    | MIMO  | Tune-up | Meas. | Tune-up | Meas. |
| 802.11g<br>(6M)        | 1/2412                     | 14.51                      | 13.28 | 11.50   | 10.60 | 11.50   | 9.91  |
|                        | 2/2417                     | 14.51                      | 13.34 | 11.50   | 10.68 | 11.50   | 9.94  |
|                        | 3/2422                     | 16.01                      | 14.90 | 13.00   | 12.22 | 13.00   | 11.53 |
|                        | 4/2427                     | 16.01                      | 14.81 | 13.00   | 12.09 | 13.00   | 11.49 |
|                        | 5/2432                     | 16.01                      | 14.93 | 13.00   | 12.08 | 13.00   | 11.75 |
|                        | 6/2437                     | 16.01                      | 15.01 | 13.00   | 12.18 | 13.00   | 11.82 |
|                        | 7/2442                     | 16.01                      | 14.85 | 13.00   | 12.05 | 13.00   | 11.62 |
|                        | 8/2447                     | 16.01                      | 15.02 | 13.00   | 12.07 | 13.00   | 11.95 |
|                        | 9/2452                     | 16.01                      | 15.09 | 13.00   | 12.00 | 13.00   | 12.16 |
|                        | 10/2457                    | 13.01                      | 12.29 | 10.00   | 9.15  | 10.00   | 9.40  |
|                        | 11/2462                    | 11.51                      | 10.15 | 8.50    | 7.08  | 8.50    | 7.19  |
| 802.11n-HT20<br>(MCS0) | 1/2412                     | 14.51                      | 13.05 | 11.50   | 10.02 | 11.50   | 10.06 |
|                        | 2/2417                     | 14.51                      | 13.08 | 11.50   | 10.12 | 11.50   | 10.02 |
|                        | 3/2422                     | 16.01                      | 14.64 | 13.00   | 11.67 | 13.00   | 11.59 |
|                        | 4/2427                     | 16.01                      | 14.90 | 13.00   | 11.65 | 13.00   | 12.12 |
|                        | 5/2432                     | 16.01                      | 14.84 | 13.00   | 11.72 | 13.00   | 11.94 |
|                        | 6/2437                     | 16.01                      | 14.91 | 13.00   | 11.81 | 13.00   | 11.98 |
|                        | 7/2442                     | 16.01                      | 14.80 | 13.00   | 11.75 | 13.00   | 11.83 |
|                        | 8/2447                     | 16.01                      | 14.89 | 13.00   | 11.73 | 13.00   | 12.02 |
|                        | 9/2452                     | 16.01                      | 14.96 | 13.00   | 11.59 | 13.00   | 12.28 |
|                        | 10/2457                    | 13.01                      | 11.99 | 10.00   | 8.70  | 10.00   | 9.24  |
|                        | 11/2462                    | 11.51                      | 9.82  | 8.50    | 6.57  | 8.50    | 7.03  |
| 802.11n-HT40<br>(MCS0) | 3/2422                     | 10.01                      | 8.34  | 7.00    | 5.04  | 7.00    | 5.61  |
|                        | 4/2427                     | 11.51                      | 9.88  | 8.50    | 6.60  | 8.50    | 7.12  |

|  |         |       |       |       |       |       |       |
|--|---------|-------|-------|-------|-------|-------|-------|
|  | 5/2432  | 16.01 | 15.02 | 13.00 | 11.68 | 13.00 | 12.31 |
|  | 6/2437  | 16.01 | 15.06 | 13.00 | 11.83 | 13.00 | 12.25 |
|  | 7/2442  | 11.01 | 9.31  | 8.00  | 6.02  | 8.00  | 6.56  |
|  | 8/2447  | 10.01 | 8.32  | 7.00  | 5.09  | 7.00  | 5.52  |
|  | 9/2452  | 9.51  | 7.84  | 6.50  | 4.56  | 6.50  | 5.08  |
|  | 10/2457 | 11.01 | 9.37  | 8.00  | 6.08  | 8.00  | 6.62  |
|  | 11/2462 | 11.01 | 9.35  | 8.00  | 6.09  | 8.00  | 6.58  |

| Wi-Fi 2.4G<br>(REC Off) |                        | Channel<br>/Frequency(MHz) | Maximum Output Power (dBm) |       |
|-------------------------|------------------------|----------------------------|----------------------------|-------|
| Antenna                 | Mode                   |                            | Tune-up                    | Meas. |
| Antenna 1               | 802.11b<br>(1M)        | 1/2412                     | 18.00                      | 16.57 |
|                         |                        | 2/2417                     | 18.00                      | 16.41 |
|                         |                        | 3/2422                     | 18.00                      | 16.45 |
|                         |                        | 4/2427                     | 18.00                      | 16.38 |
|                         |                        | 5/2432                     | 18.00                      | 16.37 |
|                         |                        | 6/2437                     | 18.00                      | 16.78 |
|                         |                        | 7/2442                     | 18.00                      | 16.75 |
|                         |                        | 8/2447                     | 18.00                      | 16.50 |
|                         |                        | 9/2452                     | 18.00                      | 16.51 |
|                         |                        | 10/2457                    | 18.00                      | 16.48 |
|                         |                        | 11/2462                    | 18.00                      | 16.44 |
|                         | 802.11g<br>(6M)        | 1/2412                     | 11.50                      | 10.22 |
|                         |                        | 2/2417                     | 11.50                      | 10.23 |
|                         |                        | 3/2422                     | 18.00                      | 16.28 |
|                         |                        | 4/2427                     | 18.00                      | 16.33 |
|                         |                        | 5/2432                     | 18.00                      | 16.35 |
|                         |                        | 6/2437                     | 18.00                      | 16.42 |
|                         |                        | 7/2442                     | 18.00                      | 16.35 |
|                         |                        | 8/2447                     | 18.00                      | 16.18 |
|                         |                        | 9/2452                     | 18.00                      | 16.13 |
|                         |                        | 10/2457                    | 10.00                      | 8.70  |
|                         |                        | 11/2462                    | 8.50                       | 6.83  |
|                         | 802.11n-HT20<br>(MCS0) | 1/2412                     | 11.50                      | 9.69  |
|                         |                        | 2/2417                     | 11.50                      | 9.74  |
|                         |                        | 3/2422                     | 17.00                      | 15.10 |
|                         |                        | 4/2427                     | 17.00                      | 15.11 |
|                         |                        | 5/2432                     | 17.00                      | 15.12 |
|                         |                        | 6/2437                     | 17.00                      | 15.13 |
|                         |                        | 7/2442                     | 17.00                      | 15.09 |



|           |                        |         |       |       |
|-----------|------------------------|---------|-------|-------|
|           |                        | 8/2447  | 17.00 | 15.13 |
|           |                        | 9/2452  | 17.00 | 15.14 |
|           |                        | 10/2457 | 10.00 | 8.30  |
|           |                        | 11/2462 | 8.50  | 6.75  |
|           | 802.11n-HT40<br>(MCS0) | 3/2422  | 7.00  | 5.12  |
|           |                        | 4/2427  | 8.50  | 6.73  |
|           |                        | 5/2432  | 15.50 | 13.71 |
|           |                        | 6/2437  | 15.50 | 13.61 |
|           |                        | 7/2442  | 8.00  | 6.08  |
|           |                        | 8/2447  | 7.00  | 5.03  |
|           |                        | 9/2452  | 6.50  | 4.55  |
|           |                        | 10/2457 | 8.00  | 6.16  |
|           |                        | 11/2462 | 8.00  | 6.13  |
|           | 802.11b<br>(1M)        | 1/2412  | 17.00 | 15.55 |
|           |                        | 2/2417  | 17.00 | 15.50 |
|           |                        | 3/2422  | 17.00 | 15.18 |
|           |                        | 4/2427  | 17.00 | 15.09 |
|           |                        | 5/2432  | 17.00 | 15.12 |
|           |                        | 6/2437  | 17.00 | 15.29 |
|           |                        | 7/2442  | 17.00 | 15.30 |
|           |                        | 8/2447  | 17.00 | 15.41 |
|           |                        | 9/2452  | 17.00 | 15.85 |
|           |                        | 10/2457 | 17.00 | 15.77 |
|           |                        | 11/2462 | 17.00 | 15.16 |
| Antenna 2 | 802.11g<br>(6M)        | 1/2412  | 11.50 | 9.92  |
|           |                        | 2/2417  | 11.50 | 9.94  |
|           |                        | 3/2422  | 17.00 | 15.37 |
|           |                        | 4/2427  | 17.00 | 15.27 |
|           |                        | 5/2432  | 17.00 | 15.44 |
|           |                        | 6/2437  | 17.00 | 15.84 |
|           |                        | 7/2442  | 17.00 | 15.37 |
|           |                        | 8/2447  | 17.00 | 15.69 |
|           |                        | 9/2452  | 17.00 | 15.83 |
|           |                        | 10/2457 | 10.00 | 9.06  |
|           |                        | 11/2462 | 8.50  | 6.59  |
|           | 802.11n-HT20<br>(MCS0) | 1/2412  | 11.50 | 9.54  |
|           |                        | 2/2417  | 11.50 | 9.60  |
|           |                        | 3/2422  | 16.00 | 14.06 |
|           |                        | 4/2427  | 16.00 | 14.03 |
|           |                        | 5/2432  | 16.00 | 14.05 |

|  |                        |         |       |       |
|--|------------------------|---------|-------|-------|
|  |                        | 6/2437  | 16.00 | 14.18 |
|  |                        | 7/2442  | 16.00 | 14.02 |
|  |                        | 8/2447  | 16.00 | 14.43 |
|  |                        | 9/2452  | 16.00 | 14.75 |
|  |                        | 10/2457 | 10.00 | 8.69  |
|  |                        | 11/2462 | 8.50  | 6.57  |
|  | 802.11n-HT40<br>(MCS0) | 3/2422  | 7.00  | 5.09  |
|  |                        | 4/2427  | 8.50  | 6.62  |
|  |                        | 5/2432  | 14.50 | 12.57 |
|  |                        | 6/2437  | 14.50 | 12.66 |
|  |                        | 7/2442  | 8.00  | 6.03  |
|  |                        | 8/2447  | 7.00  | 5.06  |
|  |                        | 9/2452  | 6.50  | 4.55  |
|  |                        | 10/2457 | 8.00  | 6.10  |
|  |                        | 11/2462 | 8.00  | 6.08  |

| Wi-Fi 2.4G<br>(REC Off) |                            | Maximum Output Power (dBm) |       |         |       |         |       |
|-------------------------|----------------------------|----------------------------|-------|---------|-------|---------|-------|
| Mode                    | Channel<br>/Frequency(MHz) | MIMO                       |       | Ant1    |       | Ant2    |       |
|                         |                            | Tune-up                    | MIMO  | Tune-up | Meas. | Tune-up | Meas. |
| 802.11g<br>(6M)         | 1/2412                     | 14.51                      | 13.08 | 11.50   | 10.22 | 11.50   | 9.92  |
|                         | 2/2417                     | 14.51                      | 13.10 | 11.50   | 10.23 | 11.50   | 9.94  |
|                         | 3/2422                     | 20.54                      | 18.86 | 18.00   | 16.28 | 17.00   | 15.37 |
|                         | 4/2427                     | 20.54                      | 18.84 | 18.00   | 16.33 | 17.00   | 15.27 |
|                         | 5/2432                     | 20.54                      | 18.93 | 18.00   | 16.35 | 17.00   | 15.44 |
|                         | 6/2437                     | 20.54                      | 19.15 | 18.00   | 16.42 | 17.00   | 15.84 |
|                         | 7/2442                     | 20.54                      | 18.90 | 18.00   | 16.35 | 17.00   | 15.37 |
|                         | 8/2447                     | 20.54                      | 18.95 | 18.00   | 16.18 | 17.00   | 15.69 |
|                         | 9/2452                     | 20.54                      | 18.99 | 18.00   | 16.13 | 17.00   | 15.83 |
|                         | 10/2457                    | 13.01                      | 11.89 | 10.00   | 8.70  | 10.00   | 9.06  |
|                         | 11/2462                    | 11.51                      | 9.72  | 8.50    | 6.83  | 8.50    | 6.59  |
| 802.11n-HT20<br>(MCS0)  | 1/2412                     | 14.51                      | 12.63 | 11.50   | 9.69  | 11.50   | 9.54  |
|                         | 2/2417                     | 14.51                      | 12.68 | 11.50   | 9.74  | 11.50   | 9.60  |
|                         | 3/2422                     | 19.54                      | 17.62 | 17.00   | 15.10 | 16.00   | 14.06 |
|                         | 4/2427                     | 19.54                      | 17.61 | 17.00   | 15.11 | 16.00   | 14.03 |
|                         | 5/2432                     | 19.54                      | 17.63 | 17.00   | 15.12 | 16.00   | 14.05 |
|                         | 6/2437                     | 19.54                      | 17.69 | 17.00   | 15.13 | 16.00   | 14.18 |
|                         | 7/2442                     | 19.54                      | 17.60 | 17.00   | 15.09 | 16.00   | 14.02 |
|                         | 8/2447                     | 19.54                      | 17.80 | 17.00   | 15.13 | 16.00   | 14.43 |
|                         | 9/2452                     | 19.54                      | 17.96 | 17.00   | 15.14 | 16.00   | 14.75 |

|                        |         |       |       |       |       |       |       |
|------------------------|---------|-------|-------|-------|-------|-------|-------|
|                        | 10/2457 | 13.01 | 11.51 | 10.00 | 8.30  | 10.00 | 8.69  |
|                        | 11/2462 | 11.51 | 9.67  | 8.50  | 6.75  | 8.50  | 6.57  |
| 802.11n-HT40<br>(MCS0) | 3/2422  | 10.01 | 8.12  | 7.00  | 5.12  | 7.00  | 5.09  |
|                        | 4/2427  | 11.51 | 9.69  | 8.50  | 6.73  | 8.50  | 6.62  |
|                        | 5/2432  | 18.04 | 16.19 | 15.50 | 13.71 | 14.50 | 12.57 |
|                        | 6/2437  | 18.04 | 16.17 | 15.50 | 13.61 | 14.50 | 12.66 |
|                        | 7/2442  | 11.01 | 9.07  | 8.00  | 6.08  | 8.00  | 6.03  |
|                        | 8/2447  | 10.01 | 8.06  | 7.00  | 5.03  | 7.00  | 5.06  |
|                        | 9/2452  | 9.51  | 7.56  | 6.50  | 4.55  | 6.50  | 4.55  |
|                        | 10/2457 | 11.01 | 9.14  | 8.00  | 6.16  | 8.00  | 6.10  |
|                        | 11/2462 | 11.01 | 9.12  | 8.00  | 6.13  | 8.00  | 6.08  |

| Wi-Fi 5G (U-NII-1)<br>(REC On) |                           | Channel<br>/Frequency(MHz) | Maximum Output Power (dBm) |       |
|--------------------------------|---------------------------|----------------------------|----------------------------|-------|
| Antenna                        | Mode                      |                            | Tune-up                    | Meas. |
| Antenna 1                      | 802.11a<br>(6M)           | 36/5180                    | 10.50                      | 9.03  |
|                                |                           | 40/5200                    | 12.00                      | 11.93 |
|                                |                           | 44/5220                    | 12.00                      | 11.08 |
|                                |                           | 48/5240                    | 12.00                      | 11.05 |
|                                | 802.11n-HT20<br>(MCS0)    | 36/5180                    | 10.50                      | 8.91  |
|                                |                           | 40/5200                    | 12.00                      | 11.05 |
|                                |                           | 44/5220                    | 12.00                      | 10.24 |
|                                |                           | 48/5240                    | 12.00                      | 10.48 |
|                                | 802.11n-HT40<br>(MCS0)    | 38/5190                    | 9.50                       | 8.22  |
|                                |                           | 46/5230                    | 12.00                      | 11.45 |
|                                | 802.11ac-VHT20<br>(6M)    | 36/5180                    | 10.50                      | 8.96  |
|                                |                           | 40/5200                    | 12.00                      | 11.02 |
|                                |                           | 44/5220                    | 12.00                      | 10.22 |
|                                |                           | 48/5240                    | 12.00                      | 10.48 |
|                                | 802.11ac-VHT40<br>(MCS0)  | 38/5190                    | 9.50                       | 8.18  |
|                                |                           | 46/5230                    | 12.00                      | 10.56 |
|                                | 802.11ac-VHT80<br>(MCS0)  | 42/5210                    | 6.50                       | 5.01  |
|                                | 802.11ac-VHT160<br>(MCS0) | 50/5250                    | 6.50                       | 5.25  |
| Antenna 2                      | 802.11a<br>(6M)           | 36/5180                    | 10.50                      | 10.33 |
|                                |                           | 40/5200                    | 12.00                      | 10.98 |
|                                |                           | 44/5220                    | 12.00                      | 11.07 |
|                                |                           | 48/5240                    | 12.00                      | 11.05 |

|  |                           |         |       |       |
|--|---------------------------|---------|-------|-------|
|  | 802.11n-HT20<br>(MCS0)    | 36/5180 | 10.50 | 9.98  |
|  |                           | 40/5200 | 12.00 | 11.12 |
|  |                           | 44/5220 | 12.00 | 11.32 |
|  |                           | 48/5240 | 12.00 | 11.09 |
|  | 802.11n-HT40<br>(MCS0)    | 38/5190 | 9.50  | 9.34  |
|  |                           | 46/5230 | 12.00 | 11.01 |
|  | 802.11ac-VHT20<br>(6M)    | 36/5180 | 10.50 | 9.97  |
|  |                           | 40/5200 | 12.00 | 11.30 |
|  |                           | 44/5220 | 12.00 | 11.16 |
|  |                           | 48/5240 | 12.00 | 11.08 |
|  | 802.11ac-VHT40<br>(MCS0)  | 38/5190 | 9.50  | 8.34  |
|  |                           | 46/5230 | 12.00 | 11.17 |
|  | 802.11ac-VHT80<br>(MCS0)  | 42/5210 | 6.50  | 5.16  |
|  | 802.11ac-VHT160<br>(MCS0) | 50/5250 | 6.50  | 5.28  |

| Wi-Fi 5G (U-NII-1)<br>(REC On) |                           | Channel<br>/Frequency(MHz) | Maximum Output Power (dBm) |                |               |       |
|--------------------------------|---------------------------|----------------------------|----------------------------|----------------|---------------|-------|
| Antenna                        | Mode                      |                            | Tune-up                    | ANT 1<br>Meas. | ANT 2<br>Meas | Total |
| CDD/ MIMO                      | 802.11a<br>(6M)           | 36/5180                    | 13.50                      | 9.03           | 10.33         | 12.74 |
|                                |                           | 40/5200                    | 15.00                      | 11.93          | 10.98         | 14.49 |
|                                |                           | 44/5220                    | 15.00                      | 11.08          | 11.07         | 14.09 |
|                                |                           | 48/5240                    | 15.00                      | 11.05          | 11.05         | 14.06 |
|                                | 802.11n-HT20<br>(MCS0)    | 36/5180                    | 13.50                      | 8.91           | 9.98          | 12.49 |
|                                |                           | 40/5200                    | 15.00                      | 11.05          | 11.12         | 14.10 |
|                                |                           | 44/5220                    | 15.00                      | 10.24          | 11.32         | 13.82 |
|                                |                           | 48/5240                    | 15.00                      | 10.48          | 11.09         | 13.81 |
|                                | 802.11n-HT40<br>(MCS0)    | 38/5190                    | 12.50                      | 8.22           | 9.34          | 11.83 |
|                                |                           | 46/5230                    | 15.00                      | 11.45          | 11.01         | 14.25 |
|                                | 802.11ac-VHT20<br>(6M)    | 36/5180                    | 13.50                      | 8.96           | 9.97          | 12.50 |
|                                |                           | 40/5200                    | 15.00                      | 11.02          | 11.30         | 14.17 |
|                                |                           | 44/5220                    | 15.00                      | 10.22          | 11.16         | 13.73 |
|                                |                           | 48/5240                    | 15.00                      | 10.48          | 11.08         | 13.80 |
|                                | 802.11ac-VHT40<br>(MCS0)  | 38/5190                    | 12.50                      | 8.18           | 8.34          | 11.27 |
|                                |                           | 46/5230                    | 15.00                      | 10.56          | 11.17         | 13.89 |
|                                | 802.11ac-VHT80<br>(MCS0)  | 42/5210                    | 9.50                       | 5.01           | 5.16          | 8.10  |
|                                | 802.11ac-VHT160<br>(MCS0) | 50/5250                    | 9.50                       | 5.25           | 5.28          | 8.28  |

| Wi-Fi 5G (U-NII-2A)<br>(REC On) |                          | Channel<br>/Frequency(MHz) | Maximum Output Power (dBm) |       |
|---------------------------------|--------------------------|----------------------------|----------------------------|-------|
| Antenna                         | Mode                     |                            | Tune-up                    | Meas. |
| Antenna 1                       | 802.11a<br>(6M)          | 52/5260                    | 12.00                      | 11.47 |
|                                 |                          | 56/5280                    | 12.00                      | 11.31 |
|                                 |                          | 60/5300                    | 12.00                      | 11.54 |
|                                 |                          | 64/5320                    | 10.50                      | 8.89  |
|                                 | 802.11n-HT20<br>(MCS0)   | 52/5260                    | 12.00                      | 10.57 |
|                                 |                          | 56/5280                    | 12.00                      | 10.74 |
|                                 |                          | 60/5300                    | 12.00                      | 10.89 |
|                                 |                          | 64/5320                    | 10.50                      | 8.76  |
|                                 | 802.11n-HT40<br>(MCS0)   | 54/5270                    | 12.00                      | 11.61 |
|                                 |                          | 62/5310                    | 9.00                       | 7.46  |
|                                 | 802.11ac-VHT20<br>(6M)   | 52/5260                    | 12.00                      | 10.55 |
|                                 |                          | 56/5280                    | 12.00                      | 10.76 |
|                                 |                          | 60/5300                    | 12.00                      | 10.89 |
|                                 |                          | 64/5320                    | 10.50                      | 9.07  |
|                                 | 802.11ac-VHT40<br>(MCS0) | 54/5270                    | 12.00                      | 10.87 |
|                                 |                          | 62/5310                    | 9.00                       | 7.45  |
|                                 | 802.11ac-VHT80<br>(MCS0) | 58/5290                    | 6.50                       | 5.88  |
| Antenna 2                       | 802.11a<br>(6M)          | 52/5260                    | 12.00                      | 10.46 |
|                                 |                          | 56/5280                    | 12.00                      | 10.30 |
|                                 |                          | 60/5300                    | 12.00                      | 10.67 |
|                                 |                          | 64/5320                    | 10.50                      | 10.06 |
|                                 | 802.11n-HT20<br>(MCS0)   | 52/5260                    | 12.00                      | 11.26 |
|                                 |                          | 56/5280                    | 12.00                      | 11.12 |
|                                 |                          | 60/5300                    | 12.00                      | 11.09 |
|                                 |                          | 64/5320                    | 10.50                      | 9.13  |
|                                 | 802.11n-HT40<br>(MCS0)   | 54/5270                    | 12.00                      | 11.77 |
|                                 |                          | 62/5310                    | 9.00                       | 7.27  |
|                                 | 802.11ac-VHT20<br>(6M)   | 52/5260                    | 12.00                      | 11.56 |
|                                 |                          | 56/5280                    | 12.00                      | 11.53 |
|                                 |                          | 60/5300                    | 12.00                      | 11.24 |
|                                 |                          | 64/5320                    | 10.50                      | 8.62  |
|                                 | 802.11ac-VHT40<br>(MCS0) | 54/5270                    | 12.00                      | 11.67 |
|                                 |                          | 62/5310                    | 9.00                       | 7.41  |
|                                 | 802.11ac-VHT80<br>(MCS0) | 58/5290                    | 6.50                       | 5.73  |

Note. Initial test configuration is 802.11n-HT40 mode, since the highest maximum output power.

| Wi-Fi 5G (U-NII-2A)<br>(REC On) |                          | Channel<br>/Frequency(MHz) | Maximum Output Power (dBm) |                |                |       |
|---------------------------------|--------------------------|----------------------------|----------------------------|----------------|----------------|-------|
| Antenna                         | Mode                     |                            | Tune-up                    | ANT 1<br>Meas. | ANT 2<br>Meas. | Total |
| CDD/ MIMO                       | 802.11a<br>(6M)          | 52/5260                    | 15.00                      | 11.47          | 10.46          | 14.00 |
|                                 |                          | 56/5280                    | 15.00                      | 11.31          | 10.30          | 13.84 |
|                                 |                          | 60/5300                    | 15.00                      | 11.69          | 10.67          | 14.22 |
|                                 |                          | 64/5320                    | 13.50                      | 8.89           | 10.06          | 12.52 |
|                                 | 802.11n-HT20<br>(MCS0)   | 52/5260                    | 15.00                      | 10.57          | 11.26          | 13.94 |
|                                 |                          | 56/5280                    | 15.00                      | 10.74          | 11.12          | 13.94 |
|                                 |                          | 60/5300                    | 15.00                      | 10.89          | 11.09          | 14.00 |
|                                 |                          | 64/5320                    | 13.50                      | 8.76           | 9.13           | 11.96 |
|                                 | 802.11n-HT40<br>(MCS0)   | 54/5270                    | 15.00                      | 11.30          | 11.77          | 14.55 |
|                                 |                          | 62/5310                    | 12.00                      | 7.46           | 7.27           | 10.38 |
|                                 | 802.11ac-VHT20<br>(6M)   | 52/5260                    | 15.00                      | 10.55          | 11.56          | 14.09 |
|                                 |                          | 56/5280                    | 15.00                      | 10.76          | 11.53          | 14.17 |
|                                 |                          | 60/5300                    | 15.00                      | 10.89          | 11.24          | 14.08 |
|                                 |                          | 64/5320                    | 13.50                      | 9.07           | 8.62           | 11.86 |
|                                 | 802.11ac-VHT40<br>(MCS0) | 54/5270                    | 15.00                      | 10.87          | 11.94          | 14.45 |
|                                 |                          | 62/5310                    | 12.00                      | 7.45           | 7.41           | 10.44 |
|                                 | 802.11ac-VHT80<br>(MCS0) | 58/5290                    | 9.50                       | 5.88           | 5.73           | 8.82  |

| Wi-Fi 5G (U-NII-2C)<br>(REC On) |                        | Channel<br>/Frequency(MHz) | Maximum Output Power (dBm) |       |
|---------------------------------|------------------------|----------------------------|----------------------------|-------|
| Antenna                         | Mode                   |                            | Tune-up                    | Meas. |
| Antenna 1                       | 802.11a<br>(6M)        | 100/5500                   | 10.50                      | 9.56  |
|                                 |                        | 104/5520                   | 12.00                      | 10.88 |
|                                 |                        | 108/5540                   | 12.00                      | 10.73 |
|                                 |                        | 112/5560                   | 12.00                      | 10.74 |
|                                 |                        | 116/5580                   | 12.00                      | 10.61 |
|                                 |                        | 120/5600                   | 12.00                      | 10.78 |
|                                 |                        | 124/5620                   | 12.00                      | 10.81 |
|                                 |                        | 128/5640                   | 12.00                      | 10.71 |
|                                 |                        | 132/5660                   | 12.00                      | 11.15 |
|                                 |                        | 136/5680                   | 12.00                      | 11.40 |
|                                 |                        | 140/5700                   | 11.00                      | 10.52 |
|                                 | 802.11n-HT20<br>(MCS0) | 100/5500                   | 10.50                      | 9.35  |
|                                 |                        | 104/5520                   | 12.00                      | 11.10 |
|                                 |                        | 108/5540                   | 12.00                      | 11.08 |

|           |                           |          |       |       |
|-----------|---------------------------|----------|-------|-------|
|           |                           | 112/5560 | 12.00 | 11.01 |
|           |                           | 116/5580 | 12.00 | 11.19 |
|           |                           | 120/5600 | 12.00 | 11.11 |
|           |                           | 124/5620 | 12.00 | 11.05 |
|           |                           | 128/5640 | 12.00 | 10.97 |
|           |                           | 132/5660 | 12.00 | 11.26 |
|           |                           | 136/5680 | 12.00 | 11.24 |
|           |                           | 140/5700 | 11.00 | 9.94  |
|           | 802.11n-HT40<br>(MCS0)    | 102/5510 | 9.50  | 8.53  |
|           |                           | 110/5550 | 12.00 | 11.12 |
|           |                           | 118/5590 | 12.00 | 11.61 |
|           |                           | 126/5630 | 12.00 | 10.78 |
|           |                           | 134/5670 | 9.50  | 8.46  |
|           | 802.11ac-VHT20<br>(6M)    | 100/5500 | 10.50 | 9.84  |
|           |                           | 104/5520 | 12.00 | 10.62 |
|           |                           | 108/5540 | 12.00 | 10.56 |
|           |                           | 112/5560 | 12.00 | 11.19 |
|           |                           | 116/5580 | 12.00 | 11.18 |
|           |                           | 120/5600 | 12.00 | 11.11 |
|           |                           | 124/5620 | 12.00 | 11.01 |
|           |                           | 128/5640 | 12.00 | 10.90 |
|           |                           | 132/5660 | 12.00 | 11.22 |
|           |                           | 136/5680 | 12.00 | 11.21 |
|           |                           | 140/5700 | 11.00 | 9.94  |
|           | 802.11ac-VHT40<br>(MCS0)  | 102/5510 | 9.50  | 8.07  |
|           |                           | 110/5550 | 12.00 | 10.77 |
|           |                           | 118/5590 | 12.00 | 11.38 |
|           |                           | 126/5630 | 12.00 | 11.17 |
|           |                           | 134/5670 | 9.50  | 8.51  |
|           | 802.11ac-VHT80<br>(MCS0)  | 106/5530 | 6.50  | 5.03  |
|           |                           | 122/5610 | 6.50  | 5.42  |
|           | 802.11ac-VHT160<br>(MCS0) | 114/5570 | 6.50  | 5.12  |
| Antenna 2 | 802.11a<br>(6M)           | 100/5500 | 10.50 | 9.53  |
|           |                           | 104/5520 | 12.00 | 11.45 |
|           |                           | 108/5540 | 12.00 | 11.33 |
|           |                           | 112/5560 | 12.00 | 11.20 |
|           |                           | 116/5580 | 12.00 | 11.24 |
|           |                           | 120/5600 | 12.00 | 11.18 |
|           |                           | 124/5620 | 12.00 | 11.15 |

|  |                           |          |       |       |
|--|---------------------------|----------|-------|-------|
|  |                           | 128/5640 | 12.00 | 11.18 |
|  |                           | 132/5660 | 12.00 | 11.16 |
|  |                           | 136/5680 | 12.00 | 11.17 |
|  |                           | 140/5700 | 11.00 | 9.58  |
|  | 802.11n-HT20<br>(MCS0)    | 100/5500 | 10.50 | 9.16  |
|  |                           | 104/5520 | 12.00 | 10.86 |
|  |                           | 108/5540 | 12.00 | 11.65 |
|  |                           | 112/5560 | 12.00 | 11.79 |
|  |                           | 116/5580 | 12.00 | 10.68 |
|  |                           | 120/5600 | 12.00 | 10.69 |
|  |                           | 124/5620 | 12.00 | 10.85 |
|  |                           | 128/5640 | 12.00 | 11.11 |
|  |                           | 132/5660 | 12.00 | 11.82 |
|  |                           | 136/5680 | 12.00 | 11.76 |
|  |                           | 140/5700 | 11.00 | 10.23 |
|  | 802.11n-HT40<br>(MCS0)    | 102/5510 | 9.50  | 8.64  |
|  |                           | 110/5550 | 12.00 | 10.98 |
|  |                           | 118/5590 | 12.00 | 11.73 |
|  |                           | 126/5630 | 12.00 | 11.07 |
|  |                           | 134/5670 | 9.50  | 9.05  |
|  | 802.11ac-VHT20<br>(6M)    | 100/5500 | 10.50 | 9.33  |
|  |                           | 104/5520 | 12.00 | 10.86 |
|  |                           | 108/5540 | 12.00 | 10.83 |
|  |                           | 112/5560 | 12.00 | 10.79 |
|  |                           | 116/5580 | 12.00 | 10.76 |
|  |                           | 120/5600 | 12.00 | 10.69 |
|  |                           | 124/5620 | 12.00 | 10.85 |
|  |                           | 128/5640 | 12.00 | 10.83 |
|  |                           | 132/5660 | 12.00 | 11.80 |
|  |                           | 136/5680 | 12.00 | 11.77 |
|  |                           | 140/5700 | 11.00 | 10.21 |
|  | 802.11ac-VHT40<br>(MCS0)  | 102/5510 | 9.50  | 8.50  |
|  |                           | 110/5550 | 12.00 | 10.75 |
|  |                           | 118/5590 | 12.00 | 10.63 |
|  |                           | 126/5630 | 12.00 | 10.67 |
|  |                           | 134/5670 | 9.50  | 9.10  |
|  | 802.11ac-VHT80<br>(MCS0)  | 106/5530 | 6.50  | 5.63  |
|  |                           | 122/5610 | 6.50  | 4.93  |
|  | 802.11ac-VHT160<br>(MCS0) | 114/5570 | 6.50  | 6.48  |



Note. Initial test configuration is 802.11n-HT40 mode, since the highest maximum output power.

| Wi-Fi 5G (U-NII-2C)<br>(REC On) |                        | Channel<br>/Frequency(MHz) | Maximum Output Power (dBm) |                |               |       |
|---------------------------------|------------------------|----------------------------|----------------------------|----------------|---------------|-------|
| Antenna                         | Mode                   |                            | Tune-up                    | ANT 1<br>Meas. | ANT 2<br>Meas | Total |
| CDD/ MIMO                       | 802.11a<br>(6M)        | 100/5500                   | 13.5                       | 9.56           | 9.53          | 12.56 |
|                                 |                        | 104/5520                   | 15.0                       | 10.88          | 11.45         | 14.18 |
|                                 |                        | 108/5540                   | 15.0                       | 10.73          | 11.33         | 14.05 |
|                                 |                        | 112/5560                   | 15.0                       | 10.74          | 11.20         | 13.99 |
|                                 |                        | 116/5580                   | 15.0                       | 10.61          | 11.24         | 13.95 |
|                                 |                        | 120/5600                   | 15.0                       | 10.78          | 11.18         | 13.99 |
|                                 |                        | 124/5620                   | 15.0                       | 10.81          | 11.15         | 13.99 |
|                                 |                        | 128/5640                   | 15.0                       | 10.71          | 11.18         | 13.96 |
|                                 |                        | 132/5660                   | 15.0                       | 11.55          | 11.16         | 14.37 |
|                                 |                        | 136/5680                   | 15.0                       | 11.40          | 11.17         | 14.30 |
|                                 |                        | 140/5700                   | 14.0                       | 10.52          | 9.58          | 13.09 |
|                                 | 802.11n-HT20<br>(MCS0) | 100/5500                   | 13.5                       | 9.35           | 9.16          | 12.27 |
|                                 |                        | 104/5520                   | 15.0                       | 11.10          | 10.86         | 13.99 |
|                                 |                        | 108/5540                   | 15.0                       | 11.08          | 11.85         | 14.49 |
|                                 |                        | 112/5560                   | 15.0                       | 11.01          | 11.79         | 14.43 |
|                                 |                        | 116/5580                   | 15.0                       | 11.19          | 10.68         | 13.95 |
|                                 |                        | 120/5600                   | 15.0                       | 11.11          | 10.69         | 13.92 |
|                                 |                        | 124/5620                   | 15.0                       | 11.05          | 10.85         | 13.96 |
|                                 |                        | 128/5640                   | 15.0                       | 10.97          | 11.11         | 14.05 |
|                                 |                        | 132/5660                   | 15.0                       | 11.26          | 11.82         | 14.56 |
|                                 |                        | 136/5680                   | 15.0                       | 11.24          | 11.76         | 14.52 |
|                                 |                        | 140/5700                   | 14.0                       | 9.94           | 10.23         | 13.10 |
|                                 | 802.11n-HT40<br>(MCS0) | 102/5510                   | 12.5                       | 8.53           | 8.64          | 11.60 |
|                                 |                        | 110/5550                   | 15.0                       | 11.22          | 10.98         | 14.11 |
|                                 |                        | 118/5590                   | 15.0                       | 10.96          | 10.83         | 13.91 |
|                                 |                        | 126/5630                   | 15.0                       | 10.78          | 11.07         | 13.94 |
|                                 |                        | 134/5670                   | 12.5                       | 8.46           | 9.05          | 11.78 |
|                                 | 802.11ac-VHT20<br>(6M) | 100/5500                   | 13.5                       | 9.84           | 9.33          | 12.60 |
|                                 |                        | 104/5520                   | 15.0                       | 10.62          | 10.86         | 13.75 |
|                                 |                        | 108/5540                   | 15.0                       | 10.56          | 10.83         | 13.71 |
|                                 |                        | 112/5560                   | 15.0                       | 11.49          | 10.79         | 14.16 |
|                                 |                        | 116/5580                   | 15.0                       | 11.18          | 10.76         | 13.99 |
|                                 |                        | 120/5600                   | 15.0                       | 11.11          | 10.69         | 13.92 |
|                                 |                        | 124/5620                   | 15.0                       | 11.01          | 10.85         | 13.94 |
|                                 |                        | 128/5640                   | 15.0                       | 10.90          | 10.83         | 13.88 |

|  |                           |          |      |       |       |       |
|--|---------------------------|----------|------|-------|-------|-------|
|  |                           | 132/5660 | 15.0 | 11.22 | 11.80 | 14.53 |
|  |                           | 136/5680 | 15.0 | 11.21 | 11.77 | 14.51 |
|  |                           | 140/5700 | 14.0 | 9.94  | 10.21 | 13.09 |
|  | 802.11ac-VHT40<br>(MCS0)  | 102/5510 | 12.5 | 8.07  | 8.50  | 11.30 |
|  |                           | 110/5550 | 15.0 | 10.77 | 10.75 | 13.77 |
|  |                           | 118/5590 | 15.0 | 11.38 | 10.63 | 14.03 |
|  |                           | 126/5630 | 15.0 | 11.17 | 10.67 | 13.94 |
|  |                           | 134/5670 | 12.5 | 8.51  | 9.10  | 11.83 |
|  | 802.11ac-VHT80<br>(MCS0)  | 106/5530 | 9.5  | 5.03  | 5.63  | 8.35  |
|  |                           | 122/5610 | 9.5  | 5.42  | 4.93  | 8.19  |
|  | 802.11ac-VHT160<br>(MCS0) | 114/5570 | 9.5  | 5.12  | 6.48  | 8.86  |

| Wi-Fi 5G (U-NII-3)<br>(REC On) |                          | Channel<br>/Frequency(MHz) | Maximum Output Power (dBm) |       |
|--------------------------------|--------------------------|----------------------------|----------------------------|-------|
| Antenna                        | Mode                     |                            | Tune-up                    | Meas. |
| Antenna 1                      | 802.11a<br>(6M)          | 149/5745                   | 11.5                       | 10.74 |
|                                |                          | 153/5760                   | 12.0                       | 10.90 |
|                                |                          | 157/5785                   | 12.0                       | 11.06 |
|                                |                          | 161/5800                   | 12.0                       | 11.29 |
|                                |                          | 165/5825                   | 11.5                       | 10.54 |
|                                | 802.11n-HT20<br>(MCS0)   | 149/5745                   | 11.5                       | 10.53 |
|                                |                          | 153/5760                   | 12.0                       | 10.91 |
|                                |                          | 157/5785                   | 12.0                       | 10.92 |
|                                |                          | 161/5800                   | 12.0                       | 10.95 |
|                                |                          | 165/5825                   | 11.5                       | 9.67  |
|                                | 802.11n-HT40<br>(MCS0)   | 151/5755                   | 12.0                       | 11.08 |
|                                |                          | 159/5795                   | 12.0                       | 11.46 |
|                                | 802.11ac-VHT20<br>(6M)   | 149/5745                   | 11.5                       | 10.51 |
|                                |                          | 153/5760                   | 12.0                       | 10.84 |
|                                |                          | 157/5785                   | 12.0                       | 10.90 |
|                                |                          | 161/5800                   | 12.0                       | 10.89 |
|                                |                          | 165/5825                   | 11.5                       | 10.17 |
|                                | 802.11ac-VHT40<br>(MCS0) | 151/5755                   | 12.0                       | 11.20 |
|                                |                          | 159/5795                   | 12.0                       | 11.26 |
|                                | 802.11ac-VHT80<br>(MCS0) | 155/5775                   | 11.5                       | 10.25 |
| Antenna 2                      | 802.11a<br>(6M)          | 149/5745                   | 11.5                       | 11.32 |
|                                |                          | 153/5760                   | 12.0                       | 11.36 |
|                                |                          | 157/5785                   | 12.0                       | 11.63 |

|  |                          |          |      |       |
|--|--------------------------|----------|------|-------|
|  |                          | 161/5800 | 12.0 | 11.68 |
|  |                          | 165/5825 | 11.5 | 10.81 |
|  | 802.11n-HT20<br>(MCS0)   | 149/5745 | 11.5 | 10.88 |
|  |                          | 153/5760 | 12.0 | 10.95 |
|  |                          | 157/5785 | 12.0 | 11.11 |
|  |                          | 161/5800 | 12.0 | 11.35 |
|  |                          | 165/5825 | 11.5 | 10.52 |
|  | 802.11n-HT40<br>(MCS0)   | 151/5755 | 12.0 | 10.89 |
|  |                          | 159/5795 | 12.0 | 11.36 |
|  | 802.11ac-VHT20<br>(6M)   | 149/5745 | 11.5 | 10.98 |
|  |                          | 153/5760 | 12.0 | 10.91 |
|  |                          | 157/5785 | 12.0 | 11.10 |
|  |                          | 161/5800 | 12.0 | 11.26 |
|  |                          | 165/5825 | 11.5 | 11.37 |
|  | 802.11ac-VHT40<br>(MCS0) | 151/5755 | 12.0 | 10.69 |
|  |                          | 159/5795 | 12.0 | 10.94 |
|  | 802.11ac-VHT80<br>(MCS0) | 155/5775 | 11.5 | 10.69 |

Note. Initial test configuration is 802.11n-HT40 mode, since the highest maximum output power.

| Wi-Fi 5G (U-NII-3)<br>(REC On) |                        | Channel<br>/Frequency(MHz) | Maximum Output Power (dBm) |                |               |       |
|--------------------------------|------------------------|----------------------------|----------------------------|----------------|---------------|-------|
| Antenna                        | Mode                   |                            | Tune-up                    | ANT 1<br>Meas. | ANT 2<br>Meas | Total |
| CDD/ MIMO                      | 802.11a<br>(6M)        | 149/5745                   | 14.5                       | 10.74          | 11.32         | 14.05 |
|                                |                        | 153/5760                   | 15.0                       | 10.90          | 11.36         | 14.15 |
|                                |                        | 157/5785                   | 15.0                       | 11.06          | 11.63         | 14.36 |
|                                |                        | 161/5800                   | 15.0                       | 11.29          | 11.68         | 14.50 |
|                                |                        | 165/5825                   | 14.5                       | 10.54          | 10.81         | 13.69 |
|                                | 802.11n-HT20<br>(MCS0) | 149/5745                   | 14.5                       | 10.53          | 10.88         | 13.72 |
|                                |                        | 153/5760                   | 15.0                       | 10.91          | 10.95         | 13.94 |
|                                |                        | 157/5785                   | 15.0                       | 10.92          | 11.11         | 14.03 |
|                                |                        | 161/5800                   | 15.0                       | 10.95          | 11.35         | 14.16 |
|                                |                        | 165/5825                   | 14.5                       | 9.67           | 10.52         | 13.13 |
|                                | 802.11n-HT40<br>(MCS0) | 151/5755                   | 15.0                       | 11.08          | 10.89         | 14.00 |
|                                |                        | 159/5795                   | 15.0                       | 11.46          | 11.36         | 14.42 |
|                                | 802.11ac-VHT20<br>(6M) | 149/5745                   | 14.5                       | 10.51          | 10.98         | 13.76 |
|                                |                        | 153/5760                   | 15.0                       | 10.84          | 10.91         | 13.89 |
|                                |                        | 157/5785                   | 15.0                       | 10.90          | 11.10         | 14.01 |
|                                |                        | 161/5800                   | 15.0                       | 10.89          | 11.26         | 14.09 |
|                                |                        | 165/5825                   | 14.5                       | 10.17          | 11.37         | 13.82 |

|  |                          |          |      |       |       |       |
|--|--------------------------|----------|------|-------|-------|-------|
|  | 802.11ac-VHT40<br>(MCS0) | 151/5755 | 15.0 | 11.20 | 10.69 | 13.96 |
|  |                          | 159/5795 | 15.0 | 11.26 | 10.94 | 14.11 |
|  | 802.11ac-VHT80<br>(MCS0) | 155/5775 | 14.5 | 10.25 | 10.69 | 13.49 |

| Wi-Fi 5G (U-NII-1)<br>(REC Off) |                           | Channel<br>/Frequency(MHz) | Maximum Output Power (dBm) |       |
|---------------------------------|---------------------------|----------------------------|----------------------------|-------|
| Antenna                         | Mode                      |                            | Tune-up                    | Meas. |
| Antenna 1                       | 802.11a<br>(6M)           | 36/5180                    | 10.5                       | 9.84  |
|                                 |                           | 40/5200                    | 16.0                       | 15.35 |
|                                 |                           | 44/5220                    | 16.0                       | 15.67 |
|                                 |                           | 48/5240                    | 16.0                       | 15.50 |
|                                 | 802.11n-HT20<br>(MCS0)    | 36/5180                    | 10.5                       | 8.94  |
|                                 |                           | 40/5200                    | 16.0                       | 14.85 |
|                                 |                           | 44/5220                    | 16.0                       | 15.11 |
|                                 |                           | 48/5240                    | 16.0                       | 15.19 |
|                                 | 802.11n-HT40<br>(MCS0)    | 38/5190                    | 9.5                        | 8.44  |
|                                 |                           | 46/5230                    | 15.5                       | 14.61 |
|                                 | 802.11ac-VHT20<br>(6M)    | 36/5180                    | 10.5                       | 9.01  |
|                                 |                           | 40/5200                    | 16.0                       | 14.89 |
|                                 |                           | 44/5220                    | 16.0                       | 15.1  |
|                                 |                           | 48/5240                    | 16.0                       | 15.04 |
|                                 | 802.11ac-VHT40<br>(MCS0)  | 38/5190                    | 9.5                        | 8.44  |
|                                 |                           | 46/5230                    | 15.5                       | 14.61 |
|                                 | 802.11ac-VHT80<br>(MCS0)  | 42/5210                    | 6.5                        | 5.25  |
|                                 | 802.11ac-VHT160<br>(MCS0) | 50/5250                    | 6.5                        | 5.54  |
| Antenna 2                       | 802.11a<br>(6M)           | 36/5180                    | 10.5                       | 10.15 |
|                                 |                           | 40/5200                    | 15.5                       | 14.68 |
|                                 |                           | 44/5220                    | 15.5                       | 14.70 |
|                                 |                           | 48/5240                    | 15.5                       | 14.44 |
|                                 | 802.11n-HT20<br>(MCS0)    | 36/5180                    | 10.5                       | 9.72  |
|                                 |                           | 40/5200                    | 15.5                       | 14.31 |
|                                 |                           | 44/5220                    | 15.5                       | 14.26 |
|                                 |                           | 48/5240                    | 15.5                       | 14.16 |
|                                 | 802.11n-HT40<br>(MCS0)    | 38/5190                    | 9.5                        | 8.92  |
|                                 |                           | 46/5230                    | 15.0                       | 13.75 |
|                                 | 802.11ac-VHT20<br>(6M)    | 36/5180                    | 10.5                       | 9.27  |
|                                 |                           | 40/5200                    | 15.5                       | 14.88 |

|  |                           |         |      |       |
|--|---------------------------|---------|------|-------|
|  |                           | 44/5220 | 15.5 | 14.87 |
|  |                           | 48/5240 | 15.5 | 14.41 |
|  | 802.11ac-VHT40<br>(MCS0)  | 38/5190 | 9.5  | 9.25  |
|  |                           | 46/5230 | 15.0 | 14.26 |
|  | 802.11ac-VHT80<br>(MCS0)  | 42/5210 | 6.5  | 5.94  |
|  | 802.11ac-VHT160<br>(MCS0) | 50/5250 | 6.5  | 5.03  |

Note. Initial test configuration is 802.11a mode, since the highest maximum output power.

| Wi-Fi 5G (U-NII-1)<br>(REC Off) |                           | Channel<br>/Frequency(MHz) | Maximum Output Power (dBm) |                |               |       |
|---------------------------------|---------------------------|----------------------------|----------------------------|----------------|---------------|-------|
| Antenna                         | Mode                      |                            | Tune-up                    | ANT 1<br>Meas. | ANT 2<br>Meas | Total |
| CDD/ MIMO                       | 802.11a<br>(6M)           | 36/5180                    | 13.5                       | 9.84           | 10.75         | 13.33 |
|                                 |                           | 40/5200                    | 18.8                       | 15.35          | 15.28         | 18.33 |
|                                 |                           | 44/5220                    | 18.8                       | 15.27          | 15.30         | 18.30 |
|                                 |                           | 48/5240                    | 18.8                       | 15.50          | 15.04         | 18.29 |
|                                 | 802.11n-HT20<br>(MCS0)    | 36/5180                    | 13.5                       | 8.94           | 10.32         | 12.69 |
|                                 |                           | 40/5200                    | 18.8                       | 14.85          | 14.91         | 17.89 |
|                                 |                           | 44/5220                    | 18.8                       | 15.11          | 14.86         | 18.00 |
|                                 |                           | 48/5240                    | 18.8                       | 15.19          | 14.76         | 17.99 |
|                                 | 802.11n-HT40<br>(MCS0)    | 38/5190                    | 12.5                       | 8.44           | 9.52          | 12.02 |
|                                 |                           | 46/5230                    | 18.3                       | 14.61          | 14.35         | 17.49 |
|                                 | 802.11ac-VHT20<br>(6M)    | 36/5180                    | 13.5                       | 9.01           | 9.27          | 12.15 |
|                                 |                           | 40/5200                    | 18.8                       | 14.89          | 14.88         | 17.90 |
|                                 |                           | 44/5220                    | 18.8                       | 15.1           | 14.87         | 18.00 |
|                                 |                           | 48/5240                    | 18.8                       | 15.04          | 14.41         | 17.75 |
|                                 | 802.11ac-VHT40<br>(MCS0)  | 38/5190                    | 12.5                       | 8.44           | 9.25          | 11.87 |
|                                 |                           | 46/5230                    | 18.3                       | 14.61          | 14.26         | 17.45 |
|                                 | 802.11ac-VHT80<br>(MCS0)  | 42/5210                    | 9.5                        | 5.25           | 6.54          | 8.95  |
|                                 | 802.11ac-VHT160<br>(MCS0) | 50/5250                    | 9.5                        | 5.54           | 5.63          | 8.60  |

| Wi-Fi 5G (U-NII-2A)<br>(REC Off) |                 | Channel<br>/Frequency(MHz) | Maximum Output Power (dBm) |       |
|----------------------------------|-----------------|----------------------------|----------------------------|-------|
| Antenna                          | Mode            |                            | Tune-up                    | Meas. |
| Antenna 1                        | 802.11a<br>(6M) | 52/5260                    | 16.0                       | 15.65 |
|                                  |                 | 56/5280                    | 16.0                       | 15.58 |
|                                  |                 | 60/5300                    | 16.0                       | 15.27 |

|           |                          |         |      |       |
|-----------|--------------------------|---------|------|-------|
|           | 802.11n-HT20<br>(MCS0)   | 64/5320 | 10.5 | 9.46  |
|           |                          | 52/5260 | 16.0 | 15.07 |
|           |                          | 56/5280 | 16.0 | 15.06 |
|           |                          | 60/5300 | 16.0 | 14.71 |
|           |                          | 64/5320 | 10.5 | 9.07  |
|           | 802.11n-HT40<br>(MCS0)   | 54/5270 | 15.5 | 14.61 |
|           |                          | 62/5310 | 9.0  | 8.02  |
|           | 802.11ac-VHT20<br>(6M)   | 52/5260 | 16.0 | 15.09 |
|           |                          | 56/5280 | 16.0 | 14.69 |
|           |                          | 60/5300 | 16.0 | 14.76 |
|           |                          | 64/5320 | 10.5 | 9.04  |
|           | 802.11ac-VHT40<br>(MCS0) | 54/5270 | 15.5 | 14.56 |
|           |                          | 62/5310 | 9.0  | 7.05  |
|           | 802.11ac-VHT80<br>(MCS0) | 58/5290 | 6.5  | 5.74  |
| Antenna 2 | 802.11a<br>(6M)          | 52/5260 | 15.5 | 15.03 |
|           |                          | 56/5280 | 15.5 | 15.07 |
|           |                          | 60/5300 | 15.5 | 15.09 |
|           |                          | 64/5320 | 10.5 | 9.38  |
|           | 802.11n-HT20<br>(MCS0)   | 52/5260 | 15.5 | 14.33 |
|           |                          | 56/5280 | 15.5 | 14.06 |
|           |                          | 60/5300 | 15.5 | 13.85 |
|           |                          | 64/5320 | 10.5 | 9.41  |
|           | 802.11n-HT40<br>(MCS0)   | 54/5270 | 15.0 | 13.54 |
|           |                          | 62/5310 | 9.0  | 7.78  |
|           | 802.11ac-VHT20<br>(6M)   | 52/5260 | 15.5 | 14.36 |
|           |                          | 56/5280 | 15.5 | 14.04 |
|           |                          | 60/5300 | 15.5 | 13.82 |
|           |                          | 64/5320 | 10.5 | 9.31  |
|           | 802.11ac-VHT40<br>(MCS0) | 54/5270 | 15.0 | 13.71 |
|           |                          | 62/5310 | 9.0  | 7.72  |
|           | 802.11ac-VHT80<br>(MCS0) | 58/5290 | 6.5  | 5.36  |

Note. Initial test configuration is 802.11a mode, since the highest maximum output power.

| Wi-Fi 5G (U-NII-2A)<br>(REC Off) |                 | Channel<br>/Frequency(MHz) | Maximum Output Power (dBm) |                |               |       |
|----------------------------------|-----------------|----------------------------|----------------------------|----------------|---------------|-------|
| Antenna                          | Mode            |                            | Tune-up                    | ANT 1<br>Meas. | ANT 2<br>Meas | Total |
| CDD/ MIMO                        | 802.11a<br>(6M) | 52/5260                    | 18.8                       | 15.65          | 15.13         | 18.41 |
|                                  |                 | 56/5280                    | 18.8                       | 15.58          | 14.61         | 18.13 |

|  |                          |         |      |       |       |       |
|--|--------------------------|---------|------|-------|-------|-------|
|  |                          | 60/5300 | 18.8 | 15.27 | 14.39 | 17.86 |
|  |                          | 64/5320 | 13.5 | 9.46  | 9.38  | 12.43 |
|  | 802.11n-HT20<br>(MCS0)   | 52/5260 | 18.8 | 15.07 | 14.33 | 17.73 |
|  |                          | 56/5280 | 18.8 | 15.06 | 14.06 | 17.60 |
|  |                          | 60/5300 | 18.8 | 14.71 | 13.85 | 17.31 |
|  |                          | 64/5320 | 13.5 | 9.07  | 9.41  | 12.25 |
|  | 802.11n-HT40<br>(MCS0)   | 54/5270 | 18.3 | 14.61 | 13.54 | 17.12 |
|  |                          | 62/5310 | 12.0 | 7.02  | 7.78  | 10.43 |
|  | 802.11ac-VHT20<br>(6M)   | 52/5260 | 18.8 | 15.09 | 14.36 | 17.75 |
|  |                          | 56/5280 | 18.8 | 14.69 | 14.04 | 17.39 |
|  |                          | 60/5300 | 18.8 | 14.76 | 13.82 | 17.33 |
|  |                          | 64/5320 | 13.5 | 9.04  | 9.31  | 12.19 |
|  | 802.11ac-VHT40<br>(MCS0) | 54/5270 | 18.3 | 14.56 | 13.71 | 17.17 |
|  |                          | 62/5310 | 12.0 | 7.05  | 7.72  | 10.41 |
|  | 802.11ac-VHT80<br>(MCS0) | 58/5290 | 9.5  | 5.74  | 4.56  | 8.20  |

| Wi-Fi 5G (U-NII-2C)<br>(REC Off) |                        | Channel<br>/Frequency(MHz) | Maximum Output Power (dBm) |       |
|----------------------------------|------------------------|----------------------------|----------------------------|-------|
| Antenna                          | Mode                   |                            | Tune-up                    | Meas. |
| Antenna 1                        | 802.11a<br>(6M)        | 100/5500                   | 10.5                       | 9.27  |
|                                  |                        | 104/5520                   | 16.0                       | 14.44 |
|                                  |                        | 108/5540                   | 16.0                       | 14.35 |
|                                  |                        | 112/5560                   | 16.0                       | 14.70 |
|                                  |                        | 116/5580                   | 16.0                       | 14.78 |
|                                  |                        | 120/5600                   | 16.0                       | 14.69 |
|                                  |                        | 124/5620                   | 16.0                       | 14.71 |
|                                  |                        | 128/5640                   | 16.0                       | 14.73 |
|                                  |                        | 132/5660                   | 16.0                       | 14.72 |
|                                  |                        | 136/5680                   | 16.0                       | 14.60 |
|                                  |                        | 140/5700                   | 11.0                       | 10.82 |
|                                  | 802.11n-HT20<br>(MCS0) | 100/5500                   | 10.5                       | 9.15  |
|                                  |                        | 104/5520                   | 16.0                       | 14.95 |
|                                  |                        | 108/5540                   | 16.0                       | 14.93 |
|                                  |                        | 112/5560                   | 16.0                       | 14.94 |
|                                  |                        | 116/5580                   | 16.0                       | 14.79 |
|                                  |                        | 120/5600                   | 16.0                       | 14.84 |
|                                  |                        | 124/5620                   | 16.0                       | 14.77 |
|                                  |                        | 128/5640                   | 16.0                       | 14.34 |
|                                  |                        | 132/5660                   | 16.0                       | 15.14 |

|           |                           |          |      |       |
|-----------|---------------------------|----------|------|-------|
|           |                           | 136/5680 | 16.0 | 15.12 |
|           |                           | 140/5700 | 11.0 | 9.54  |
|           | 802.11n-HT40<br>(MCS0)    | 102/5510 | 9.5  | 8.24  |
|           |                           | 110/5550 | 15.5 | 14.24 |
|           |                           | 118/5590 | 15.5 | 14.42 |
|           |                           | 126/5630 | 15.5 | 13.69 |
|           |                           | 134/5670 | 9.5  | 7.78  |
|           |                           | 100/5500 | 10.5 | 9.05  |
|           |                           | 104/5520 | 16.0 | 14.94 |
|           | 802.11ac-VHT20<br>(6M)    | 108/5540 | 16.0 | 14.84 |
|           |                           | 112/5560 | 16.0 | 14.98 |
|           |                           | 116/5580 | 16.0 | 14.97 |
|           |                           | 120/5600 | 16.0 | 14.93 |
|           |                           | 124/5620 | 16.0 | 15.24 |
|           |                           | 128/5640 | 16.0 | 14.46 |
|           |                           | 132/5660 | 16.0 | 15.04 |
|           |                           | 136/5680 | 16.0 | 15.06 |
|           |                           | 140/5700 | 11.0 | 9.68  |
|           |                           | 102/5510 | 9.5  | 8.49  |
|           |                           | 110/5550 | 15.5 | 14.26 |
|           | 802.11ac-VHT40<br>(MCS0)  | 118/5590 | 15.5 | 14.40 |
|           |                           | 126/5630 | 15.5 | 14.38 |
|           |                           | 134/5670 | 9.5  | 7.82  |
|           |                           | 106/5530 | 6.5  | 5.23  |
|           | 802.11ac-VHT80<br>(MCS0)  | 122/5610 | 6.5  | 5.30  |
|           |                           | 114/5570 | 6.5  | 5.57  |
|           | 802.11ac-VHT160<br>(MCS0) |          |      |       |
| Antenna 2 | 802.11a<br>(6M)           | 100/5500 | 10.5 | 9.54  |
|           |                           | 104/5520 | 15.5 | 14.10 |
|           |                           | 108/5540 | 15.5 | 14.18 |
|           |                           | 112/5560 | 15.5 | 14.37 |
|           |                           | 116/5580 | 15.5 | 14.49 |
|           |                           | 120/5600 | 15.5 | 14.72 |
|           |                           | 124/5620 | 15.5 | 14.74 |
|           |                           | 128/5640 | 15.5 | 14.72 |
|           |                           | 132/5660 | 15.5 | 14.78 |
|           |                           | 136/5680 | 15.5 | 14.86 |
|           |                           | 140/5700 | 11.0 | 10.63 |
|           | 802.11n-HT20<br>(MCS0)    | 100/5500 | 10.5 | 9.08  |
|           |                           | 104/5520 | 15.5 | 14.79 |



|  |                           |          |      |       |
|--|---------------------------|----------|------|-------|
|  |                           | 108/5540 | 15.5 | 14.78 |
|  |                           | 112/5560 | 15.5 | 14.86 |
|  |                           | 116/5580 | 15.5 | 14.93 |
|  |                           | 120/5600 | 15.5 | 14.64 |
|  |                           | 124/5620 | 15.5 | 14.73 |
|  |                           | 128/5640 | 15.5 | 14.50 |
|  |                           | 132/5660 | 15.5 | 14.46 |
|  |                           | 136/5680 | 15.5 | 14.36 |
|  |                           | 140/5700 | 11.0 | 10.24 |
|  | 802.11n-HT40<br>(MCS0)    | 102/5510 | 9.5  | 8.18  |
|  |                           | 110/5550 | 15.0 | 13.39 |
|  |                           | 118/5590 | 15.0 | 13.64 |
|  |                           | 126/5630 | 15.0 | 13.96 |
|  |                           | 134/5670 | 9.5  | 8.97  |
|  | 802.11ac-VHT20<br>(6M)    | 100/5500 | 10.5 | 8.91  |
|  |                           | 104/5520 | 15.5 | 14.65 |
|  |                           | 108/5540 | 15.5 | 14.59 |
|  |                           | 112/5560 | 15.5 | 14.63 |
|  |                           | 116/5580 | 15.5 | 14.90 |
|  |                           | 120/5600 | 15.5 | 14.24 |
|  |                           | 124/5620 | 15.5 | 14.26 |
|  |                           | 128/5640 | 15.5 | 14.35 |
|  |                           | 132/5660 | 15.5 | 14.34 |
|  |                           | 136/5680 | 15.5 | 14.32 |
|  |                           | 140/5700 | 11.0 | 10.32 |
|  | 802.11ac-VHT40<br>(MCS0)  | 102/5510 | 9.5  | 7.94  |
|  |                           | 110/5550 | 15.0 | 13.16 |
|  |                           | 118/5590 | 15.0 | 13.36 |
|  |                           | 126/5630 | 15.0 | 13.79 |
|  |                           | 134/5670 | 9.5  | 8.67  |
|  | 802.11ac-VHT80<br>(MCS0)  | 106/5530 | 6.5  | 4.77  |
|  |                           | 122/5610 | 6.5  | 5.31  |
|  | 802.11ac-VHT160<br>(MCS0) | 114/5570 | 6.5  | 5.21  |

Note. Initial test configuration is 802.11a mode, since the highest maximum output power.

| Wi-Fi 5G (U-NII-2C)<br>(REC Off) |                        | Channel<br>/Frequency(MHz) | Maximum Output Power (dBm) |                |               |       |
|----------------------------------|------------------------|----------------------------|----------------------------|----------------|---------------|-------|
| Antenna                          | Mode                   |                            | Tune-up                    | ANT 1<br>Meas. | ANT 2<br>Meas | Total |
| CDD/ MIMO                        | 802.11a<br>(6M)        | 100/5500                   | 13.5                       | 9.27           | 9.54          | 12.42 |
|                                  |                        | 104/5520                   | 18.8                       | 14.44          | 14.10         | 17.28 |
|                                  |                        | 108/5540                   | 18.8                       | 14.35          | 14.18         | 17.28 |
|                                  |                        | 112/5560                   | 18.8                       | 14.70          | 14.37         | 17.55 |
|                                  |                        | 116/5580                   | 18.8                       | 14.58          | 14.49         | 17.55 |
|                                  |                        | 120/5600                   | 18.8                       | 14.69          | 14.72         | 17.72 |
|                                  |                        | 124/5620                   | 18.8                       | 14.81          | 14.74         | 17.79 |
|                                  |                        | 128/5640                   | 18.8                       | 14.83          | 14.92         | 17.89 |
|                                  |                        | 132/5660                   | 18.8                       | 14.72          | 14.88         | 17.81 |
|                                  |                        | 136/5680                   | 18.8                       | 15.70          | 14.86         | 18.31 |
|                                  |                        | 140/5700                   | 14.0                       | 10.82          | 10.63         | 13.74 |
|                                  | 802.11n-HT20<br>(MCS0) | 100/5500                   | 13.5                       | 9.15           | 9.08          | 12.13 |
|                                  |                        | 104/5520                   | 18.8                       | 14.95          | 14.79         | 17.88 |
|                                  |                        | 108/5540                   | 18.8                       | 14.93          | 14.78         | 17.87 |
|                                  |                        | 112/5560                   | 18.8                       | 14.94          | 14.86         | 17.91 |
|                                  |                        | 116/5580                   | 18.8                       | 14.09          | 14.93         | 17.54 |
|                                  |                        | 120/5600                   | 18.8                       | 14.14          | 15.24         | 17.74 |
|                                  |                        | 124/5620                   | 18.8                       | 14.27          | 15.33         | 17.84 |
|                                  |                        | 128/5640                   | 18.8                       | 14.34          | 14.50         | 17.43 |
|                                  |                        | 132/5660                   | 18.8                       | 15.14          | 14.46         | 17.82 |
|                                  |                        | 136/5680                   | 18.8                       | 15.12          | 14.36         | 17.77 |
|                                  |                        | 140/5700                   | 14.0                       | 9.54           | 10.24         | 12.91 |
|                                  | 802.11n-HT40<br>(MCS0) | 102/5510                   | 12.5                       | 7.64           | 8.18          | 10.93 |
|                                  |                        | 110/5550                   | 18.3                       | 14.24          | 13.39         | 16.85 |
|                                  |                        | 118/5590                   | 18.3                       | 14.42          | 13.64         | 17.06 |
|                                  |                        | 126/5630                   | 18.3                       | 13.69          | 13.96         | 16.84 |
|                                  |                        | 134/5670                   | 12.5                       | 7.78           | 8.97          | 11.43 |
|                                  | 802.11ac-VHT20<br>(6M) | 100/5500                   | 13.5                       | 9.05           | 8.91          | 11.99 |
|                                  |                        | 104/5520                   | 18.8                       | 14.94          | 14.65         | 17.81 |
|                                  |                        | 108/5540                   | 18.8                       | 14.84          | 14.59         | 17.73 |
|                                  |                        | 112/5560                   | 18.8                       | 14.98          | 14.63         | 17.82 |
|                                  |                        | 116/5580                   | 18.8                       | 14.97          | 14.90         | 17.95 |
|                                  |                        | 120/5600                   | 18.8                       | 14.93          | 14.24         | 17.61 |
|                                  |                        | 124/5620                   | 18.8                       | 14.24          | 14.26         | 17.26 |
|                                  |                        | 128/5640                   | 18.8                       | 14.46          | 14.35         | 17.42 |
|                                  |                        | 132/5660                   | 18.8                       | 15.04          | 14.34         | 17.71 |
|                                  |                        | 136/5680                   | 18.8                       | 15.06          | 14.32         | 17.72 |

|  |                           |          |      |       |       |       |
|--|---------------------------|----------|------|-------|-------|-------|
|  | 802.11ac-VHT40<br>(MCS0)  | 140/5700 | 14.0 | 9.68  | 10.32 | 13.02 |
|  |                           | 102/5510 | 12.5 | 8.49  | 7.94  | 11.23 |
|  |                           | 110/5550 | 18.3 | 14.26 | 13.16 | 16.76 |
|  |                           | 118/5590 | 18.3 | 14.40 | 13.36 | 16.92 |
|  |                           | 126/5630 | 18.3 | 13.68 | 13.79 | 16.75 |
|  |                           | 134/5670 | 12.5 | 7.82  | 8.67  | 11.28 |
|  | 802.11ac-VHT80<br>(MCS0)  | 106/5530 | 9.5  | 5.23  | 4.77  | 8.02  |
|  |                           | 122/5610 | 9.5  | 5.30  | 5.31  | 8.32  |
|  | 802.11ac-VHT160<br>(MCS0) | 114/5570 | 9.5  | 5.57  | 5.21  | 8.40  |

| Wi-Fi 5G (U-NII-3)<br>(REC Off) |                          | Channel<br>/Frequency(MHz) | Maximum Output Power (dBm) |       |
|---------------------------------|--------------------------|----------------------------|----------------------------|-------|
| Antenna                         | Mode                     |                            | Tune-up                    | Meas. |
| Antenna 1                       | 802.11a<br>(6M)          | 149/5745                   | 11.5                       | 11.44 |
|                                 |                          | 153/5760                   | 16.0                       | 15.56 |
|                                 |                          | 157/5785                   | 16.0                       | 15.90 |
|                                 |                          | 161/5800                   | 16.0                       | 15.89 |
|                                 |                          | 165/5825                   | 11.5                       | 11.46 |
|                                 | 802.11n-HT20<br>(MCS0)   | 149/5745                   | 11.5                       | 10.92 |
|                                 |                          | 153/5760                   | 16.0                       | 14.94 |
|                                 |                          | 157/5785                   | 16.0                       | 15.25 |
|                                 |                          | 161/5800                   | 16.0                       | 15.42 |
|                                 |                          | 165/5825                   | 11.5                       | 10.75 |
|                                 | 802.11n-HT40<br>(MCS0)   | 151/5755                   | 15.5                       | 14.46 |
|                                 |                          | 159/5795                   | 15.5                       | 14.57 |
|                                 | 802.11ac-VHT20<br>(6M)   | 149/5745                   | 11.5                       | 10.87 |
|                                 |                          | 153/5760                   | 16.0                       | 14.99 |
|                                 |                          | 157/5785                   | 16.0                       | 15.26 |
|                                 |                          | 161/5800                   | 16.0                       | 15.40 |
|                                 |                          | 165/5825                   | 11.5                       | 11.04 |
|                                 | 802.11ac-VHT40<br>(MCS0) | 151/5755                   | 15.5                       | 14.48 |
|                                 |                          | 159/5795                   | 15.5                       | 13.85 |
|                                 | 802.11ac-VHT80<br>(MCS0) | 155/5775                   | 11.5                       | 9.83  |
| Antenna 2                       | 802.11a<br>(6M)          | 149/5745                   | 11.5                       | 10.98 |
|                                 |                          | 153/5760                   | 15.5                       | 15.19 |
|                                 |                          | 157/5785                   | 15.5                       | 15.24 |
|                                 |                          | 161/5800                   | 15.5                       | 15.28 |
|                                 |                          | 165/5825                   | 11.5                       | 11.17 |

|  |                          |          |      |       |
|--|--------------------------|----------|------|-------|
|  | 802.11n-HT20<br>(MCS0)   | 149/5745 | 11.5 | 10.46 |
|  |                          | 153/5760 | 15.5 | 14.56 |
|  |                          | 157/5785 | 15.5 | 14.93 |
|  |                          | 161/5800 | 15.5 | 15.06 |
|  |                          | 165/5825 | 11.5 | 10.73 |
|  | 802.11n-HT40<br>(MCS0)   | 151/5755 | 15.0 | 14.06 |
|  |                          | 159/5795 | 15.0 | 14.31 |
|  | 802.11ac-VHT20<br>(6M)   | 149/5745 | 11.5 | 10.45 |
|  |                          | 153/5760 | 15.5 | 14.67 |
|  |                          | 157/5785 | 15.5 | 14.91 |
|  |                          | 161/5800 | 15.5 | 15.11 |
|  |                          | 165/5825 | 11.5 | 11.09 |
|  | 802.11ac-VHT40<br>(MCS0) | 151/5755 | 15.0 | 14.05 |
|  |                          | 159/5795 | 15.0 | 13.98 |
|  | 802.11ac-VHT80<br>(MCS0) | 155/5775 | 11.5 | 9.91  |

Note. Initial test configuration is 802.11a mode, since the highest maximum output power.

| Wi-Fi 5G (U-NII-3)<br>(REC Off) |                          | Channel<br>/Frequency(MHz) | Maximum Output Power (dBm) |                |               |       |
|---------------------------------|--------------------------|----------------------------|----------------------------|----------------|---------------|-------|
| Antenna                         | Mode                     |                            | Tune-up                    | ANT 1<br>Meas. | ANT 2<br>Meas | Total |
| CDD/ MIMO                       | 802.11a<br>(6M)          | 149/5745                   | 17.3                       | 11.44          | 10.98         | 14.23 |
|                                 |                          | 153/5760                   | 18.8                       | 15.56          | 15.19         | 18.39 |
|                                 |                          | 157/5785                   | 18.8                       | 15.79          | 15.24         | 18.53 |
|                                 |                          | 161/5800                   | 18.8                       | 15.89          | 15.28         | 18.61 |
|                                 |                          | 165/5825                   | 16.6                       | 11.46          | 11.17         | 14.33 |
|                                 | 802.11n-HT20<br>(MCS0)   | 149/5745                   | 17.3                       | 10.92          | 10.46         | 13.71 |
|                                 |                          | 153/5760                   | 18.8                       | 14.94          | 14.56         | 17.76 |
|                                 |                          | 157/5785                   | 18.8                       | 15.25          | 14.93         | 18.10 |
|                                 |                          | 161/5800                   | 18.8                       | 15.42          | 15.06         | 18.25 |
|                                 |                          | 165/5825                   | 16.6                       | 10.75          | 10.73         | 13.75 |
|                                 | 802.11n-HT40<br>(MCS0)   | 151/5755                   | 18.3                       | 14.46          | 14.06         | 17.27 |
|                                 |                          | 159/5795                   | 17.8                       | 14.57          | 14.31         | 17.45 |
|                                 | 802.11ac-VHT20<br>(6M)   | 149/5745                   | 17.3                       | 10.87          | 10.45         | 13.68 |
|                                 |                          | 153/5760                   | 18.8                       | 14.99          | 14.67         | 17.84 |
|                                 |                          | 157/5785                   | 18.8                       | 15.26          | 14.91         | 18.10 |
|                                 |                          | 161/5800                   | 18.8                       | 15.40          | 15.11         | 18.27 |
|                                 |                          | 165/5825                   | 16.6                       | 11.04          | 11.09         | 14.08 |
|                                 | 802.11ac-VHT40<br>(MCS0) | 151/5755                   | 18.3                       | 14.48          | 14.05         | 17.28 |
|                                 |                          | 159/5795                   | 17.8                       | 13.85          | 13.98         | 16.93 |

|  |                          |          |      |      |      |       |
|--|--------------------------|----------|------|------|------|-------|
|  | 802.11ac-VHT80<br>(MCS0) | 155/5775 | 14.5 | 9.83 | 9.91 | 12.88 |
|--|--------------------------|----------|------|------|------|-------|

**CE**

| Wi-Fi 2.4G<br>(REC On) |                        | Channel<br>/Frequency(MHz) | Maximum Output Power (dBm) |       |
|------------------------|------------------------|----------------------------|----------------------------|-------|
| Antenna                | Mode                   |                            | Tune-up                    | Meas. |
| Antenna 1              | 802.11b<br>(1M)        | 1/2412                     | 15.50                      | 14.39 |
|                        |                        | 2/2417                     | 15.50                      | 14.54 |
|                        |                        | 3/2422                     | 15.50                      | 14.52 |
|                        |                        | 4/2427                     | 15.50                      | 14.37 |
|                        |                        | 5/2432                     | 15.50                      | 14.34 |
|                        |                        | 6/2437                     | 15.50                      | 14.65 |
|                        |                        | 7/2442                     | 15.50                      | 13.93 |
|                        |                        | 8/2447                     | 15.50                      | 14.36 |
|                        |                        | 9/2452                     | 15.50                      | 14.16 |
|                        |                        | 10/2457                    | 15.50                      | 14.12 |
|                        |                        | 11/2462                    | 15.50                      | 13.93 |
|                        |                        | 12/2467                    | 15.50                      | 14.20 |
|                        |                        | 13/2472                    | 15.50                      | 14.14 |
|                        | 802.11g<br>(6M)        | 1/2412                     | 11.50                      | 10.60 |
|                        |                        | 2/2417                     | 11.50                      | 10.68 |
|                        |                        | 3/2422                     | 15.50                      | 14.52 |
|                        |                        | 4/2427                     | 15.50                      | 14.39 |
|                        |                        | 5/2432                     | 15.50                      | 14.38 |
|                        |                        | 6/2437                     | 15.50                      | 14.48 |
|                        |                        | 7/2442                     | 15.50                      | 14.35 |
|                        |                        | 8/2447                     | 15.50                      | 14.37 |
|                        |                        | 9/2452                     | 15.50                      | 14.30 |
|                        |                        | 10/2457                    | 10.00                      | 9.45  |
|                        |                        | 11/2462                    | 8.50                       | 7.38  |
|                        |                        | 12/2467                    | 15.50                      | 14.47 |
|                        |                        | 13/2472                    | 15.50                      | 14.48 |
|                        | 802.11n-HT20<br>(MCS0) | 1/2412                     | 11.50                      | 10.02 |
|                        |                        | 2/2417                     | 11.50                      | 10.12 |
|                        |                        | 3/2422                     | 15.50                      | 13.97 |
|                        |                        | 4/2427                     | 15.50                      | 13.95 |
|                        |                        | 5/2432                     | 15.50                      | 14.02 |
|                        |                        | 6/2437                     | 15.50                      | 14.11 |

|           |                        |         |       |       |
|-----------|------------------------|---------|-------|-------|
|           |                        | 7/2442  | 15.50 | 14.05 |
|           |                        | 8/2447  | 15.50 | 14.03 |
|           |                        | 9/2452  | 15.50 | 13.89 |
|           |                        | 10/2457 | 10.00 | 8.70  |
|           |                        | 11/2462 | 8.50  | 7.07  |
|           |                        | 12/2467 | 15.50 | 14.11 |
|           |                        | 13/2472 | 15.50 | 14.34 |
|           | 802.11n-HT40<br>(MCS0) | 3/2422  | 7.00  | 5.54  |
|           |                        | 4/2427  | 8.50  | 6.60  |
|           |                        | 5/2432  | 15.50 | 13.98 |
|           |                        | 6/2437  | 15.50 | 14.13 |
|           |                        | 7/2442  | 8.00  | 6.52  |
|           |                        | 8/2447  | 7.00  | 5.59  |
|           |                        | 9/2452  | 6.50  | 5.06  |
|           |                        | 10/2457 | 8.00  | 6.58  |
|           |                        | 11/2462 | 8.00  | 6.59  |
| Antenna 2 | 802.11b<br>(1M)        | 1/2412  | 15.50 | 14.97 |
|           |                        | 2/2417  | 15.50 | 14.16 |
|           |                        | 3/2422  | 15.50 | 14.09 |
|           |                        | 4/2427  | 15.50 | 13.98 |
|           |                        | 5/2432  | 15.50 | 14.30 |
|           |                        | 6/2437  | 15.50 | 14.07 |
|           |                        | 7/2442  | 15.50 | 13.79 |
|           |                        | 8/2447  | 15.50 | 14.57 |
|           |                        | 9/2452  | 15.50 | 14.66 |
|           |                        | 10/2457 | 15.50 | 14.88 |
|           |                        | 11/2462 | 15.50 | 14.58 |
|           |                        | 12/2467 | 15.50 | 14.64 |
|           |                        | 13/2472 | 15.50 | 14.49 |
|           | 802.11g<br>(6M)        | 1/2412  | 11.5  | 9.91  |
|           |                        | 2/2417  | 11.5  | 9.94  |
|           |                        | 3/2422  | 15.5  | 13.83 |
|           |                        | 4/2427  | 15.5  | 13.79 |
|           |                        | 5/2432  | 15.5  | 14.05 |
|           |                        | 6/2437  | 15.5  | 14.12 |
|           |                        | 7/2442  | 15.5  | 13.92 |
|           |                        | 8/2447  | 15.5  | 14.25 |
|           |                        | 9/2452  | 15.5  | 14.46 |
|           |                        | 10/2457 | 10    | 9.40  |
|           |                        | 11/2462 | 8.50  | 7.19  |

|      |                        |         |       |       |
|------|------------------------|---------|-------|-------|
|      |                        | 12/2467 | 15.50 | 14.44 |
|      |                        | 13/2472 | 15.50 | 14.53 |
|      | 802.11n-HT20<br>(MCS0) | 1/2412  | 11.50 | 10.06 |
|      |                        | 2/2417  | 11.50 | 10.02 |
|      |                        | 3/2422  | 15.50 | 13.89 |
|      |                        | 4/2427  | 15.50 | 14.42 |
|      |                        | 5/2432  | 15.50 | 14.24 |
|      |                        | 6/2437  | 15.50 | 14.28 |
|      |                        | 7/2442  | 15.50 | 14.13 |
|      |                        | 8/2447  | 15.50 | 14.32 |
|      |                        | 9/2452  | 15.50 | 14.58 |
|      |                        | 10/2457 | 10.00 | 9.24  |
|      |                        | 11/2462 | 8.50  | 7.03  |
|      |                        | 12/2467 | 15.50 | 14.61 |
|      |                        | 13/2472 | 15.50 | 14.77 |
|      | 802.11n-HT40<br>(MCS0) | 3/2422  | 7.00  | 5.61  |
|      |                        | 4/2427  | 8.50  | 7.12  |
|      |                        | 5/2432  | 14.50 | 13.61 |
|      |                        | 6/2437  | 14.50 | 13.55 |
|      |                        | 7/2442  | 8.00  | 6.56  |
|      |                        | 8/2447  | 7.00  | 5.52  |
|      |                        | 9/2452  | 6.50  | 5.08  |
|      |                        | 10/2457 | 8.00  | 6.62  |
|      |                        | 11/2462 | 8.00  | 6.58  |
| MIMO | 802.11g<br>(6M)        | 1/2412  | 14.51 | 13.28 |
|      |                        | 2/2417  | 14.51 | 13.34 |
|      |                        | 3/2422  | 18.51 | 17.20 |
|      |                        | 4/2427  | 18.51 | 17.11 |
|      |                        | 5/2432  | 18.51 | 17.23 |
|      |                        | 6/2437  | 18.51 | 17.31 |
|      |                        | 7/2442  | 18.51 | 17.15 |
|      |                        | 8/2447  | 18.51 | 17.32 |
|      |                        | 9/2452  | 18.51 | 17.39 |
|      |                        | 10/2457 | 13.01 | 12.29 |
|      |                        | 11/2462 | 11.51 | 10.15 |
|      |                        | 12/2467 | 18.51 | 17.44 |
|      |                        | 13/2472 | 18.51 | 17.51 |
|      | 802.11n-HT20<br>(MCS0) | 1/2412  | 14.51 | 13.05 |
|      |                        | 2/2417  | 14.51 | 13.08 |
|      |                        | 3/2422  | 18.51 | 16.94 |

|  |                        |         |       |       |
|--|------------------------|---------|-------|-------|
|  |                        | 4/2427  | 18.51 | 17.20 |
|  |                        | 5/2432  | 18.51 | 17.14 |
|  |                        | 6/2437  | 18.51 | 17.21 |
|  |                        | 7/2442  | 18.51 | 17.10 |
|  |                        | 8/2447  | 18.51 | 17.19 |
|  |                        | 9/2452  | 18.51 | 17.26 |
|  |                        | 10/2457 | 13.01 | 11.99 |
|  |                        | 11/2462 | 11.51 | 9.82  |
|  |                        | 12/2467 | 18.51 | 16.94 |
|  |                        | 13/2472 | 18.51 | 17.14 |
|  | 802.11n-HT40<br>(MCS0) | 3/2422  | 10.01 | 8.34  |
|  |                        | 4/2427  | 11.51 | 9.88  |
|  |                        | 5/2432  | 18.04 | 17.32 |
|  |                        | 6/2437  | 18.04 | 17.36 |
|  |                        | 7/2442  | 11.01 | 9.31  |
|  |                        | 8/2447  | 10.01 | 8.32  |
|  |                        | 9/2452  | 9.51  | 7.84  |
|  |                        | 10/2457 | 11.01 | 9.37  |
|  |                        | 11/2462 | 11.01 | 9.35  |

| Wi-Fi 2.4G<br>(REC Off) |                 | Channel<br>/Frequency(MHz) | Maximum Output Power (dBm) |       |
|-------------------------|-----------------|----------------------------|----------------------------|-------|
| Antenna                 | Mode            |                            | Tune-up                    | Meas. |
| Antenna 1               | 802.11b<br>(1M) | 1/2412                     | 18.00                      | 16.96 |
|                         |                 | 2/2417                     | 18.00                      | 16.72 |
|                         |                 | 3/2422                     | 18.00                      | 16.80 |
|                         |                 | 4/2427                     | 18.00                      | 16.91 |
|                         |                 | 5/2432                     | 18.00                      | 16.89 |
|                         |                 | 6/2437                     | 18.00                      | 17.25 |
|                         |                 | 7/2442                     | 18.00                      | 17.10 |
|                         |                 | 8/2447                     | 18.00                      | 16.93 |
|                         |                 | 9/2452                     | 18.00                      | 16.91 |
|                         |                 | 10/2457                    | 18.00                      | 16.80 |
|                         |                 | 11/2462                    | 18.00                      | 16.94 |
|                         |                 | 12/2467                    | 18.00                      | 16.70 |
|                         |                 | 13/2472                    | 16.00                      | 14.88 |
|                         | 802.11g<br>(6M) | 1/2412                     | 11.50                      | 10.65 |
|                         |                 | 2/2417                     | 11.50                      | 10.61 |
|                         |                 | 3/2422                     | 18.00                      | 16.73 |
|                         |                 | 4/2427                     | 18.00                      | 16.71 |



|           |                        |         |       |       |
|-----------|------------------------|---------|-------|-------|
|           |                        | 5/2432  | 18.00 | 16.70 |
|           |                        | 6/2437  | 18.00 | 16.84 |
|           |                        | 7/2442  | 18.00 | 16.74 |
|           |                        | 8/2447  | 18.00 | 16.56 |
|           |                        | 9/2452  | 18.00 | 16.60 |
|           |                        | 10/2457 | 10.00 | 9.11  |
|           |                        | 11/2462 | 8.50  | 7.19  |
|           |                        | 12/2467 | 18.00 | 16.79 |
|           |                        | 13/2472 | 18.00 | 16.76 |
|           | 802.11n-HT20<br>(MCS0) | 1/2412  | 11.50 | 10.10 |
|           |                        | 2/2417  | 11.50 | 10.06 |
|           |                        | 3/2422  | 17.00 | 15.62 |
|           |                        | 4/2427  | 17.00 | 15.53 |
|           |                        | 5/2432  | 17.00 | 15.65 |
|           |                        | 6/2437  | 17.00 | 15.52 |
|           |                        | 7/2442  | 17.00 | 15.47 |
|           |                        | 8/2447  | 17.00 | 15.57 |
|           |                        | 9/2452  | 17.00 | 15.51 |
|           |                        | 10/2457 | 10.00 | 8.70  |
|           |                        | 11/2462 | 8.50  | 7.15  |
|           |                        | 12/2467 | 17.00 | 15.74 |
|           |                        | 13/2472 | 17.00 | 15.54 |
|           | 802.11n-HT40<br>(MCS0) | 3/2422  | 7.00  | 5.57  |
|           |                        | 4/2427  | 8.50  | 7.03  |
|           |                        | 5/2432  | 15.50 | 14.14 |
|           |                        | 6/2437  | 15.50 | 13.93 |
|           |                        | 7/2442  | 8.00  | 6.48  |
|           |                        | 8/2447  | 7.00  | 5.55  |
|           |                        | 9/2452  | 6.50  | 4.98  |
|           |                        | 10/2457 | 8.00  | 6.56  |
|           |                        | 11/2462 | 8.00  | 6.43  |
| Antenna 2 | 802.11b<br>(1M)        | 1/2412  | 17.00 | 16.01 |
|           |                        | 2/2417  | 17.00 | 15.97 |
|           |                        | 3/2422  | 17.00 | 15.58 |
|           |                        | 4/2427  | 17.00 | 15.60 |
|           |                        | 5/2432  | 17.00 | 15.57 |
|           |                        | 6/2437  | 17.00 | 15.78 |
|           |                        | 7/2442  | 17.00 | 15.81 |
|           |                        | 8/2447  | 17.00 | 15.89 |
|           |                        | 9/2452  | 17.00 | 16.37 |

|      |                        |         |       |       |
|------|------------------------|---------|-------|-------|
|      |                        | 10/2457 | 17.00 | 16.21 |
|      |                        | 11/2462 | 17.00 | 15.59 |
|      |                        | 12/2467 | 17.00 | 15.64 |
|      |                        | 13/2472 | 16.00 | 14.77 |
|      | 802.11g<br>(6M)        | 1/2412  | 11.50 | 10.39 |
|      |                        | 2/2417  | 11.50 | 10.31 |
|      |                        | 3/2422  | 17.00 | 15.78 |
|      |                        | 4/2427  | 17.00 | 15.65 |
|      |                        | 5/2432  | 17.00 | 15.97 |
|      |                        | 6/2437  | 17.00 | 16.16 |
|      |                        | 7/2442  | 17.00 | 15.83 |
|      |                        | 8/2447  | 17.00 | 16.21 |
|      |                        | 9/2452  | 17.00 | 16.34 |
|      |                        | 10/2457 | 10.00 | 9.43  |
|      |                        | 11/2462 | 8.50  | 7.11  |
|      |                        | 12/2467 | 17.00 | 16.16 |
|      |                        | 13/2472 | 17.00 | 15.98 |
|      | 802.11n-HT20<br>(MCS0) | 1/2412  | 11.50 | 9.99  |
|      |                        | 2/2417  | 11.50 | 10.03 |
|      |                        | 3/2422  | 16.00 | 14.46 |
|      |                        | 4/2427  | 16.00 | 14.36 |
|      |                        | 5/2432  | 16.00 | 14.42 |
|      |                        | 6/2437  | 16.00 | 14.68 |
|      |                        | 7/2442  | 16.00 | 14.39 |
|      |                        | 8/2447  | 16.00 | 14.90 |
|      |                        | 9/2452  | 16.00 | 15.06 |
|      |                        | 10/2457 | 10.00 | 9.06  |
|      |                        | 11/2462 | 8.50  | 6.91  |
|      |                        | 12/2467 | 16.00 | 14.55 |
|      |                        | 13/2472 | 16.00 | 14.56 |
|      | 802.11n-HT40<br>(MCS0) | 3/2422  | 7.00  | 5.62  |
|      |                        | 4/2427  | 8.50  | 6.96  |
|      |                        | 5/2432  | 14.50 | 13.07 |
|      |                        | 6/2437  | 14.50 | 13.14 |
|      |                        | 7/2442  | 8.00  | 6.43  |
|      |                        | 8/2447  | 7.00  | 5.40  |
|      |                        | 9/2452  | 6.50  | 5.01  |
|      |                        | 10/2457 | 8.00  | 6.48  |
|      |                        | 11/2462 | 8.00  | 6.60  |
| MIMO | 802.11g                | 1/2412  | 14.51 | 13.48 |

|  |                        |         |       |       |
|--|------------------------|---------|-------|-------|
|  | (6M)                   | 2/2417  | 14.51 | 13.57 |
|  |                        | 3/2422  | 20.54 | 19.28 |
|  |                        | 4/2427  | 20.54 | 19.23 |
|  |                        | 5/2432  | 20.54 | 19.27 |
|  |                        | 6/2437  | 20.54 | 19.46 |
|  |                        | 7/2442  | 20.54 | 19.39 |
|  |                        | 8/2447  | 20.54 | 19.31 |
|  |                        | 9/2452  | 20.54 | 19.31 |
|  |                        | 10/2457 | 13.01 | 12.29 |
|  |                        | 11/2462 | 11.51 | 10.12 |
|  |                        | 12/2467 | 20.54 | 18.98 |
|  |                        | 13/2472 | 20.54 | 19.13 |
|  | 802.11n-HT20<br>(MCS0) | 1/2412  | 14.51 | 12.96 |
|  |                        | 2/2417  | 14.51 | 13.08 |
|  |                        | 3/2422  | 19.54 | 18.14 |
|  |                        | 4/2427  | 19.54 | 17.98 |
|  |                        | 5/2432  | 19.54 | 18.07 |
|  |                        | 6/2437  | 19.54 | 18.00 |
|  |                        | 7/2442  | 19.54 | 17.96 |
|  |                        | 8/2447  | 19.54 | 18.29 |
|  |                        | 9/2452  | 19.54 | 18.34 |
|  |                        | 10/2457 | 13.01 | 11.89 |
|  |                        | 11/2462 | 11.51 | 10.00 |
|  |                        | 12/2467 | 19.54 | 18.06 |
|  |                        | 13/2472 | 19.54 | 17.97 |
|  | 802.11n-HT40<br>(MCS0) | 3/2422  | 10.01 | 8.47  |
|  |                        | 4/2427  | 11.51 | 10.15 |
|  |                        | 5/2432  | 18.04 | 16.59 |
|  |                        | 6/2437  | 18.04 | 16.57 |
|  |                        | 7/2442  | 11.01 | 9.44  |
|  |                        | 8/2447  | 10.01 | 8.49  |
|  |                        | 9/2452  | 9.51  | 7.95  |
|  |                        | 10/2457 | 11.01 | 9.56  |
|  |                        | 11/2462 | 11.01 | 9.52  |

| Wi-Fi 5G (U-NII-1)<br>(REC On) |                           | Channel<br>/Frequency(MHz) | Maximum Output Power (dBm) |       |
|--------------------------------|---------------------------|----------------------------|----------------------------|-------|
| Antenna                        | Mode                      |                            | Tune-up                    | Meas. |
| Antenna 1                      | 802.11a<br>(6M)           | 36/5180                    | 10.5                       | 9.03  |
|                                |                           | 40/5200                    | 16.0                       | 15.43 |
|                                |                           | 44/5220                    | 16.0                       | 14.58 |
|                                |                           | 48/5240                    | 16.0                       | 14.55 |
|                                | 802.11n-HT20<br>(MCS0)    | 36/5180                    | 10.5                       | 8.91  |
|                                |                           | 40/5200                    | 16.0                       | 14.55 |
|                                |                           | 44/5220                    | 16.0                       | 14.94 |
|                                |                           | 48/5240                    | 16.0                       | 14.38 |
|                                | 802.11n-HT40<br>(MCS0)    | 38/5190                    | 9.5                        | 8.22  |
|                                |                           | 46/5230                    | 15.5                       | 14.95 |
|                                | 802.11ac-VHT20<br>(6M)    | 36/5180                    | 10.5                       | 8.96  |
|                                |                           | 40/5200                    | 16.0                       | 14.52 |
|                                |                           | 44/5220                    | 16.0                       | 14.92 |
|                                |                           | 48/5240                    | 16.0                       | 15.18 |
|                                | 802.11ac-VHT40<br>(MCS0)  | 38/5190                    | 9.5                        | 8.18  |
|                                |                           | 46/5230                    | 15.5                       | 14.06 |
|                                | 802.11ac-VHT80<br>(MCS0)  | 42/5210                    | 6.5                        | 5.01  |
|                                | 802.11ac-VHT160<br>(MCS0) | 50/5250                    | 6.5                        | 5.25  |
| Antenna 2                      | 802.11a<br>(6M)           | 36/5180                    | 10.5                       | 10.33 |
|                                |                           | 40/5200                    | 15.5                       | 14.48 |
|                                |                           | 44/5220                    | 15.5                       | 14.57 |
|                                |                           | 48/5240                    | 15.5                       | 14.55 |
|                                | 802.11n-HT20<br>(MCS0)    | 36/5180                    | 10.5                       | 9.98  |
|                                |                           | 40/5200                    | 15.5                       | 14.62 |
|                                |                           | 44/5220                    | 15.5                       | 14.82 |
|                                |                           | 48/5240                    | 15.5                       | 14.59 |
|                                | 802.11n-HT40<br>(MCS0)    | 38/5190                    | 9.5                        | 9.34  |
|                                |                           | 46/5230                    | 15.0                       | 14.51 |
|                                | 802.11ac-VHT20<br>(6M)    | 36/5180                    | 10.5                       | 9.97  |
|                                |                           | 40/5200                    | 15.5                       | 14.80 |
|                                |                           | 44/5220                    | 15.5                       | 14.66 |
|                                |                           | 48/5240                    | 15.5                       | 14.58 |
|                                | 802.11ac-VHT40<br>(MCS0)  | 38/5190                    | 9.5                        | 8.34  |
|                                |                           | 46/5230                    | 15.0                       | 14.67 |
|                                | 802.11ac-VHT80            | 42/5210                    | 6.5                        | 5.16  |

|           |                           |         |      |       |
|-----------|---------------------------|---------|------|-------|
|           | (MCS0)                    |         |      |       |
|           | 802.11ac-VHT160<br>(MCS0) | 50/5250 | 6.5  | 5.28  |
| CDD/ MIMO | 802.11a<br>(6M)           | 36/5180 | 13.5 | 12.74 |
|           |                           | 40/5200 | 18.8 | 17.99 |
|           |                           | 44/5220 | 18.8 | 17.59 |
|           |                           | 48/5240 | 18.8 | 17.56 |
|           | 802.11n-HT20<br>(MCS0)    | 36/5180 | 13.5 | 12.49 |
|           |                           | 40/5200 | 18.8 | 17.60 |
|           |                           | 44/5220 | 18.8 | 17.32 |
|           |                           | 48/5240 | 18.8 | 17.31 |
|           | 802.11n-HT40<br>(MCS0)    | 38/5190 | 12.5 | 11.83 |
|           |                           | 46/5230 | 18.3 | 17.75 |
|           | 802.11ac-VHT20<br>(6M)    | 36/5180 | 13.5 | 12.50 |
|           |                           | 40/5200 | 18.8 | 17.67 |
|           |                           | 44/5220 | 18.8 | 17.23 |
|           |                           | 48/5240 | 18.8 | 17.30 |
|           | 802.11ac-VHT40<br>(MCS0)  | 38/5190 | 12.5 | 11.27 |
|           |                           | 46/5230 | 18.3 | 17.39 |
|           | 802.11ac-VHT80<br>(MCS0)  | 42/5210 | 9.5  | 8.10  |
|           | 802.11ac-VHT160<br>(MCS0) | 50/5250 | 9.5  | 8.28  |

| Wi-Fi 5G (U-NII-2A)<br>(REC On) |                        | Channel<br>/Frequency(MHz) | Maximum Output Power (dBm) |       |
|---------------------------------|------------------------|----------------------------|----------------------------|-------|
| Antenna                         | Mode                   |                            | Tune-up                    | Meas. |
| Antenna 1                       | 802.11a<br>(6M)        | 52/5260                    | 16.0                       | 14.97 |
|                                 |                        | 56/5280                    | 16.0                       | 14.81 |
|                                 |                        | 60/5300                    | 16.0                       | 15.04 |
|                                 |                        | 64/5320                    | 10.5                       | 8.89  |
|                                 | 802.11n-HT20<br>(MCS0) | 52/5260                    | 16.0                       | 14.07 |
|                                 |                        | 56/5280                    | 16.0                       | 14.24 |
|                                 |                        | 60/5300                    | 16.0                       | 14.39 |
|                                 |                        | 64/5320                    | 10.5                       | 8.76  |
|                                 | 802.11n-HT40<br>(MCS0) | 54/5270                    | 15.5                       | 15.11 |
|                                 |                        | 62/5310                    | 9.0                        | 7.46  |
|                                 | 802.11ac-VHT20<br>(6M) | 52/5260                    | 16.0                       | 14.85 |
|                                 |                        | 56/5280                    | 16.0                       | 14.26 |
|                                 |                        | 60/5300                    | 16.0                       | 14.39 |

|           |                          |         |      |       |
|-----------|--------------------------|---------|------|-------|
|           |                          | 64/5320 | 10.5 | 9.07  |
|           |                          | 54/5270 | 15.5 | 14.37 |
|           | 802.11ac-VHT40<br>(MCS0) | 62/5310 | 9.0  | 7.45  |
|           | 802.11ac-VHT80<br>(MCS0) | 58/5290 | 6.5  | 5.88  |
| Antenna 2 | 802.11a<br>(6M)          | 52/5260 | 15.5 | 13.96 |
|           |                          | 56/5280 | 15.5 | 13.80 |
|           |                          | 60/5300 | 15.5 | 14.17 |
|           |                          | 64/5320 | 10.5 | 10.06 |
|           | 802.11n-HT20<br>(MCS0)   | 52/5260 | 15.5 | 14.76 |
|           |                          | 56/5280 | 15.5 | 14.62 |
|           |                          | 60/5300 | 15.5 | 14.59 |
|           |                          | 64/5320 | 10.5 | 9.13  |
|           | 802.11n-HT40<br>(MCS0)   | 54/5270 | 15.0 | 13.98 |
|           |                          | 62/5310 | 9.0  | 7.27  |
|           | 802.11ac-VHT20<br>(6M)   | 52/5260 | 15.5 | 15.06 |
|           |                          | 56/5280 | 15.5 | 15.03 |
|           |                          | 60/5300 | 15.5 | 14.74 |
|           |                          | 64/5320 | 10.5 | 8.62  |
|           | 802.11ac-VHT40<br>(MCS0) | 54/5270 | 15.0 | 14.17 |
|           |                          | 62/5310 | 9.0  | 7.41  |
|           | 802.11ac-VHT80<br>(MCS0) | 58/5290 | 6.5  | 5.73  |
| CDD/ MIMO | 802.11a<br>(6M)          | 52/5260 | 18.8 | 17.50 |
|           |                          | 56/5280 | 18.8 | 17.34 |
|           |                          | 60/5300 | 18.8 | 17.72 |
|           |                          | 64/5320 | 13.5 | 12.52 |
|           | 802.11n-HT20<br>(MCS0)   | 52/5260 | 18.8 | 17.44 |
|           |                          | 56/5280 | 18.8 | 17.44 |
|           |                          | 60/5300 | 18.8 | 17.50 |
|           |                          | 64/5320 | 13.5 | 11.96 |
|           | 802.11n-HT40<br>(MCS0)   | 54/5270 | 18.3 | 18.05 |
|           |                          | 62/5310 | 12.0 | 10.38 |
|           | 802.11ac-VHT20<br>(6M)   | 52/5260 | 18.8 | 17.59 |
|           |                          | 56/5280 | 18.8 | 17.67 |
|           |                          | 60/5300 | 18.8 | 17.58 |
|           |                          | 64/5320 | 13.5 | 11.86 |
|           | 802.11ac-VHT40<br>(MCS0) | 54/5270 | 18.3 | 17.95 |
|           |                          | 62/5310 | 12.0 | 10.44 |
|           | 802.11ac-VHT80           | 58/5290 | 9.5  | 8.82  |

|  |        |  |  |
|--|--------|--|--|
|  | (MCS0) |  |  |
|--|--------|--|--|

| Wi-Fi 5G (U-NII-2C)<br>(REC On) |                        | Channel<br>/Frequency(MHz) | Maximum Output Power (dBm) |       |
|---------------------------------|------------------------|----------------------------|----------------------------|-------|
| Antenna                         | Mode                   |                            | Tune-up                    | Meas. |
| Antenna 1                       | 802.11a<br>(6M)        | 100/5500                   | 10.5                       | 9.56  |
|                                 |                        | 104/5520                   | 16.0                       | 14.38 |
|                                 |                        | 108/5540                   | 16.0                       | 14.23 |
|                                 |                        | 112/5560                   | 16.0                       | 14.24 |
|                                 |                        | 116/5580                   | 16.0                       | 14.11 |
|                                 |                        | 120/5600                   | 16.0                       | 14.28 |
|                                 |                        | 124/5620                   | 16.0                       | 14.31 |
|                                 |                        | 128/5640                   | 16.0                       | 14.21 |
|                                 |                        | 132/5660                   | 16.0                       | 14.65 |
|                                 |                        | 136/5680                   | 16.0                       | 14.90 |
|                                 |                        | 140/5700                   | 11.0                       | 10.52 |
|                                 | 802.11n-HT20<br>(MCS0) | 100/5500                   | 10.5                       | 9.35  |
|                                 |                        | 104/5520                   | 16.0                       | 14.60 |
|                                 |                        | 108/5540                   | 16.0                       | 14.58 |
|                                 |                        | 112/5560                   | 16.0                       | 14.51 |
|                                 |                        | 116/5580                   | 16.0                       | 14.69 |
|                                 |                        | 120/5600                   | 16.0                       | 14.61 |
|                                 |                        | 124/5620                   | 16.0                       | 14.55 |
|                                 |                        | 128/5640                   | 16.0                       | 14.47 |
|                                 |                        | 132/5660                   | 16.0                       | 14.76 |
|                                 |                        | 136/5680                   | 16.0                       | 14.74 |
|                                 |                        | 140/5700                   | 11.0                       | 9.94  |
|                                 | 802.11n-HT40<br>(MCS0) | 102/5510                   | 9.5                        | 8.53  |
|                                 |                        | 110/5550                   | 15.5                       | 14.62 |
|                                 |                        | 118/5590                   | 15.5                       | 14.71 |
|                                 |                        | 126/5630                   | 15.5                       | 14.28 |
|                                 |                        | 134/5670                   | 9.5                        | 8.46  |
|                                 | 802.11ac-VHT20<br>(6M) | 100/5500                   | 10.5                       | 9.84  |
|                                 |                        | 104/5520                   | 16.0                       | 14.12 |
|                                 |                        | 108/5540                   | 16.0                       | 14.06 |
|                                 |                        | 112/5560                   | 16.0                       | 14.69 |
|                                 |                        | 116/5580                   | 16.0                       | 14.68 |
|                                 |                        | 120/5600                   | 16.0                       | 14.61 |
|                                 |                        | 124/5620                   | 16.0                       | 14.51 |
|                                 |                        | 128/5640                   | 16.0                       | 14.40 |

|           |                           |          |      |       |
|-----------|---------------------------|----------|------|-------|
|           |                           | 132/5660 | 16.0 | 14.72 |
|           |                           | 136/5680 | 16.0 | 14.71 |
|           |                           | 140/5700 | 11.0 | 9.94  |
|           | 802.11ac-VHT40<br>(MCS0)  | 102/5510 | 9.5  | 8.07  |
|           |                           | 110/5550 | 15.5 | 14.27 |
|           |                           | 118/5590 | 15.5 | 14.88 |
|           |                           | 126/5630 | 15.5 | 14.67 |
|           |                           | 134/5670 | 9.5  | 8.51  |
|           | 802.11ac-VHT80<br>(MCS0)  | 106/5530 | 6.5  | 5.03  |
|           |                           | 122/5610 | 6.5  | 5.42  |
|           | 802.11ac-VHT160<br>(MCS0) | 114/5570 | 6.5  | 5.12  |
| Antenna 2 | 802.11a<br>(6M)           | 100/5500 | 10.5 | 9.53  |
|           |                           | 104/5520 | 15.5 | 14.95 |
|           |                           | 108/5540 | 15.5 | 14.83 |
|           |                           | 112/5560 | 15.5 | 14.70 |
|           |                           | 116/5580 | 15.5 | 14.74 |
|           |                           | 120/5600 | 15.5 | 14.68 |
|           |                           | 124/5620 | 15.5 | 14.65 |
|           |                           | 128/5640 | 15.5 | 14.68 |
|           |                           | 132/5660 | 15.5 | 14.66 |
|           |                           | 136/5680 | 15.5 | 14.67 |
|           |                           | 140/5700 | 11.0 | 9.58  |
|           | 802.11n-HT20<br>(MCS0)    | 100/5500 | 10.5 | 9.16  |
|           |                           | 104/5520 | 15.5 | 14.36 |
|           |                           | 108/5540 | 15.5 | 15.15 |
|           |                           | 112/5560 | 15.5 | 15.29 |
|           |                           | 116/5580 | 15.5 | 14.18 |
|           |                           | 120/5600 | 15.5 | 14.19 |
|           |                           | 124/5620 | 15.5 | 14.35 |
|           |                           | 128/5640 | 15.5 | 14.61 |
|           |                           | 132/5660 | 15.5 | 15.32 |
|           |                           | 136/5680 | 15.5 | 15.26 |
|           |                           | 140/5700 | 11.0 | 10.23 |
|           | 802.11n-HT40<br>(MCS0)    | 102/5510 | 9.5  | 8.64  |
|           |                           | 110/5550 | 15.0 | 14.48 |
|           |                           | 118/5590 | 15.0 | 14.73 |
|           |                           | 126/5630 | 15.0 | 14.57 |
|           |                           | 134/5670 | 9.5  | 9.05  |
|           | 802.11ac-VHT20            | 100/5500 | 10.5 | 9.33  |



|           |                           |          |      |       |
|-----------|---------------------------|----------|------|-------|
|           | (6M)                      | 104/5520 | 15.5 | 14.36 |
|           |                           | 108/5540 | 15.5 | 14.33 |
|           |                           | 112/5560 | 15.5 | 14.29 |
|           |                           | 116/5580 | 15.5 | 14.26 |
|           |                           | 120/5600 | 15.5 | 14.19 |
|           |                           | 124/5620 | 15.5 | 14.35 |
|           |                           | 128/5640 | 15.5 | 14.33 |
|           |                           | 132/5660 | 15.5 | 15.30 |
|           |                           | 136/5680 | 15.5 | 15.27 |
|           |                           | 140/5700 | 11.0 | 10.21 |
|           | 802.11ac-VHT40<br>(MCS0)  | 102/5510 | 9.5  | 8.50  |
|           |                           | 110/5550 | 15.0 | 14.25 |
|           |                           | 118/5590 | 15.0 | 14.13 |
|           |                           | 126/5630 | 15.0 | 14.17 |
|           |                           | 134/5670 | 9.5  | 9.10  |
|           | 802.11ac-VHT80<br>(MCS0)  | 106/5530 | 6.5  | 5.63  |
|           |                           | 122/5610 | 6.5  | 4.93  |
|           | 802.11ac-VHT160<br>(MCS0) | 114/5570 | 6.5  | 6.48  |
| CDD/ MIMO | 802.11a<br>(6M)           | 100/5500 | 13.5 | 12.56 |
|           |                           | 104/5520 | 18.8 | 17.68 |
|           |                           | 108/5540 | 18.8 | 17.55 |
|           |                           | 112/5560 | 18.8 | 17.49 |
|           |                           | 116/5580 | 18.8 | 17.45 |
|           |                           | 120/5600 | 18.8 | 17.49 |
|           |                           | 124/5620 | 18.8 | 17.49 |
|           |                           | 128/5640 | 18.8 | 17.46 |
|           |                           | 132/5660 | 18.8 | 17.87 |
|           |                           | 136/5680 | 18.8 | 17.80 |
|           |                           | 140/5700 | 14.0 | 13.09 |
|           | 802.11n-HT20<br>(MCS0)    | 100/5500 | 13.5 | 12.27 |
|           |                           | 104/5520 | 18.8 | 17.49 |
|           |                           | 108/5540 | 18.8 | 17.99 |
|           |                           | 112/5560 | 18.8 | 17.93 |
|           |                           | 116/5580 | 18.8 | 17.45 |
|           |                           | 120/5600 | 18.8 | 17.42 |
|           |                           | 124/5620 | 18.8 | 17.46 |
|           |                           | 128/5640 | 18.8 | 17.55 |
|           |                           | 132/5660 | 18.8 | 18.06 |
|           |                           | 136/5680 | 18.8 | 18.02 |

|  |                           |          |      |       |
|--|---------------------------|----------|------|-------|
|  | 802.11n-HT40<br>(MCS0)    | 140/5700 | 14.0 | 13.10 |
|  |                           | 102/5510 | 12.5 | 11.60 |
|  |                           | 110/5550 | 18.3 | 17.61 |
|  |                           | 118/5590 | 18.3 | 17.41 |
|  |                           | 126/5630 | 18.3 | 17.44 |
|  |                           | 134/5670 | 12.5 | 11.78 |
|  | 802.11ac-VHT20<br>(6M)    | 100/5500 | 13.5 | 12.60 |
|  |                           | 104/5520 | 18.8 | 17.25 |
|  |                           | 108/5540 | 18.8 | 17.21 |
|  |                           | 112/5560 | 18.8 | 17.66 |
|  |                           | 116/5580 | 18.8 | 17.49 |
|  |                           | 120/5600 | 18.8 | 17.42 |
|  |                           | 124/5620 | 18.8 | 17.44 |
|  |                           | 128/5640 | 18.8 | 17.38 |
|  |                           | 132/5660 | 18.8 | 18.03 |
|  |                           | 136/5680 | 18.8 | 18.01 |
|  |                           | 140/5700 | 14.0 | 13.09 |
|  | 802.11ac-VHT40<br>(MCS0)  | 102/5510 | 12.5 | 11.30 |
|  |                           | 110/5550 | 18.3 | 17.27 |
|  |                           | 118/5590 | 18.3 | 17.53 |
|  |                           | 126/5630 | 18.3 | 17.44 |
|  |                           | 134/5670 | 12.5 | 11.83 |
|  | 802.11ac-VHT80<br>(MCS0)  | 106/5530 | 9.5  | 8.35  |
|  |                           | 122/5610 | 9.5  | 8.19  |
|  | 802.11ac-VHT160<br>(MCS0) | 114/5570 | 9.5  | 8.86  |

| Wi-Fi 5G (U-NII-3)<br>(REC On) |                        | Channel<br>/Frequency(MHz) | Maximum Output Power (dBm) |       |
|--------------------------------|------------------------|----------------------------|----------------------------|-------|
| Antenna                        | Mode                   |                            | Tune-up                    | Meas. |
| Antenna 1                      | 802.11a<br>(6M)        | 149/5745                   | 11.5                       | 10.74 |
|                                |                        | 153/5760                   | 11.5                       | 10.90 |
|                                |                        | 157/5785                   | 11.5                       | 11.06 |
|                                |                        | 161/5800                   | 11.5                       | 11.29 |
|                                |                        | 165/5825                   | 11.5                       | 10.54 |
|                                | 802.11n-HT20<br>(MCS0) | 149/5745                   | 11.5                       | 10.53 |
|                                |                        | 153/5760                   | 11.5                       | 10.91 |
|                                |                        | 157/5785                   | 11.5                       | 10.92 |
|                                |                        | 161/5800                   | 11.5                       | 10.95 |
|                                |                        | 165/5825                   | 11.5                       | 9.67  |

|           |                          |          |      |       |
|-----------|--------------------------|----------|------|-------|
|           | 802.11n-HT40<br>(MCS0)   | 151/5755 | 11.5 | 11.08 |
|           |                          | 159/5795 | 11.5 | 11.46 |
|           | 802.11ac-VHT20<br>(6M)   | 149/5745 | 11.5 | 10.51 |
|           |                          | 153/5760 | 11.5 | 10.84 |
|           |                          | 157/5785 | 11.5 | 10.90 |
|           |                          | 161/5800 | 11.5 | 10.89 |
|           |                          | 165/5825 | 11.5 | 10.17 |
|           | 802.11ac-VHT40<br>(MCS0) | 151/5755 | 11.5 | 11.20 |
|           |                          | 159/5795 | 11.5 | 11.26 |
|           | 802.11ac-VHT80<br>(MCS0) | 155/5775 | 11.5 | 10.25 |
| Antenna 2 | 802.11a<br>(6M)          | 149/5745 | 11.5 | 11.32 |
|           |                          | 153/5760 | 11.5 | 11.36 |
|           |                          | 157/5785 | 11.5 | 10.63 |
|           |                          | 161/5800 | 11.5 | 10.68 |
|           |                          | 165/5825 | 11.5 | 10.81 |
|           | 802.11n-HT20<br>(MCS0)   | 149/5745 | 11.5 | 10.88 |
|           |                          | 153/5760 | 11.5 | 10.95 |
|           |                          | 157/5785 | 11.5 | 11.11 |
|           |                          | 161/5800 | 11.5 | 11.35 |
|           |                          | 165/5825 | 11.5 | 10.52 |
|           | 802.11n-HT40<br>(MCS0)   | 151/5755 | 11.5 | 10.89 |
|           |                          | 159/5795 | 11.5 | 11.36 |
|           | 802.11ac-VHT20<br>(6M)   | 149/5745 | 11.5 | 10.98 |
|           |                          | 153/5760 | 11.5 | 10.91 |
|           |                          | 157/5785 | 11.5 | 11.10 |
|           |                          | 161/5800 | 11.5 | 11.26 |
|           |                          | 165/5825 | 11.5 | 11.37 |
|           | 802.11ac-VHT40<br>(MCS0) | 151/5755 | 11.5 | 10.69 |
|           |                          | 159/5795 | 11.5 | 10.94 |
|           | 802.11ac-VHT80<br>(MCS0) | 155/5775 | 11.5 | 10.69 |
| CDD/ MIMO | 802.11a<br>(6M)          | 149/5745 | 14.5 | 14.05 |
|           |                          | 153/5760 | 14.5 | 14.15 |
|           |                          | 157/5785 | 14.5 | 14.36 |
|           |                          | 161/5800 | 14.5 | 14.50 |
|           |                          | 165/5825 | 14.5 | 13.69 |
|           | 802.11n-HT20<br>(MCS0)   | 149/5745 | 14.5 | 13.72 |
|           |                          | 153/5760 | 14.5 | 13.94 |
|           |                          | 157/5785 | 14.5 | 14.03 |

|  |                          |          |      |       |
|--|--------------------------|----------|------|-------|
|  |                          | 161/5800 | 14.5 | 14.16 |
|  |                          | 165/5825 | 14.5 | 13.13 |
|  | 802.11n-HT40<br>(MCS0)   | 151/5755 | 14.5 | 14.00 |
|  |                          | 159/5795 | 14.5 | 14.42 |
|  | 802.11ac-VHT20<br>(6M)   | 149/5745 | 14.5 | 13.76 |
|  |                          | 153/5760 | 14.5 | 13.89 |
|  |                          | 157/5785 | 14.5 | 14.01 |
|  |                          | 161/5800 | 14.5 | 14.09 |
|  |                          | 165/5825 | 14.5 | 13.82 |
|  | 802.11ac-VHT40<br>(MCS0) | 151/5755 | 14.5 | 13.96 |
|  |                          | 159/5795 | 14.5 | 14.11 |
|  | 802.11ac-VHT80<br>(MCS0) | 155/5775 | 14.5 | 13.49 |

| Wi-Fi 5G (U-NII-1)<br>(REC Off) |                           | Channel<br>/Frequency(MHz) | Maximum Output Power (dBm) |       |
|---------------------------------|---------------------------|----------------------------|----------------------------|-------|
| Antenna                         | Mode                      |                            | Tune-up                    | Meas. |
| Antenna 1                       | 802.11a<br>(6M)           | 36/5180                    | 10.5                       | 9.86  |
|                                 |                           | 40/5200                    | 16.0                       | 15.35 |
|                                 |                           | 44/5220                    | 16.0                       | 15.73 |
|                                 |                           | 48/5240                    | 16.0                       | 15.48 |
|                                 | 802.11n-HT20<br>(MCS0)    | 36/5180                    | 10.5                       | 8.95  |
|                                 |                           | 40/5200                    | 16.0                       | 14.85 |
|                                 |                           | 44/5220                    | 16.0                       | 15.10 |
|                                 |                           | 48/5240                    | 16.0                       | 15.17 |
|                                 | 802.11n-HT40<br>(MCS0)    | 38/5190                    | 9.5                        | 8.43  |
|                                 |                           | 46/5230                    | 15.5                       | 14.60 |
|                                 | 802.11ac-VHT20<br>(6M)    | 36/5180                    | 10.5                       | 9.00  |
|                                 |                           | 40/5200                    | 16.0                       | 14.88 |
|                                 |                           | 44/5220                    | 16.0                       | 15.09 |
|                                 |                           | 48/5240                    | 16.0                       | 15.04 |
|                                 | 802.11ac-VHT40<br>(MCS0)  | 38/5190                    | 9.5                        | 8.45  |
|                                 |                           | 46/5230                    | 15.5                       | 14.59 |
|                                 | 802.11ac-VHT80<br>(MCS0)  | 42/5210                    | 6.5                        | 5.23  |
|                                 | 802.11ac-VHT160<br>(MCS0) | 50/5250                    | 6.5                        | 5.53  |
| Antenna 2                       | 802.11a<br>(6M)           | 36/5180                    | 10.5                       | 10.17 |
|                                 |                           | 40/5200                    | 15.5                       | 14.68 |
|                                 |                           | 44/5220                    | 15.5                       | 14.76 |

|           |                           |         |      |       |
|-----------|---------------------------|---------|------|-------|
|           |                           | 48/5240 | 15.5 | 14.43 |
|           | 802.11n-HT20<br>(MCS0)    | 36/5180 | 10.5 | 9.73  |
|           |                           | 40/5200 | 15.5 | 14.31 |
|           |                           | 44/5220 | 15.5 | 14.26 |
|           |                           | 48/5240 | 15.5 | 14.15 |
|           | 802.11n-HT40<br>(MCS0)    | 38/5190 | 9.5  | 8.91  |
|           |                           | 46/5230 | 15.0 | 13.75 |
|           | 802.11ac-VHT20<br>(6M)    | 36/5180 | 10.5 | 9.26  |
|           |                           | 40/5200 | 15.5 | 14.87 |
|           |                           | 44/5220 | 15.5 | 14.87 |
|           |                           | 48/5240 | 15.5 | 14.41 |
|           | 802.11ac-VHT40<br>(MCS0)  | 38/5190 | 9.5  | 9.26  |
|           |                           | 46/5230 | 15.0 | 14.24 |
|           | 802.11ac-VHT80<br>(MCS0)  | 42/5210 | 6.5  | 5.92  |
|           | 802.11ac-VHT160<br>(MCS0) | 50/5250 | 6.5  | 5.02  |
| CDD/ MIMO | 802.11a<br>(6M)           | 36/5180 | 13.5 | 13.31 |
|           |                           | 40/5200 | 18.8 | 18.32 |
|           |                           | 44/5220 | 18.8 | 18.27 |
|           |                           | 48/5240 | 18.8 | 18.28 |
|           | 802.11n-HT20<br>(MCS0)    | 36/5180 | 13.5 | 12.68 |
|           |                           | 40/5200 | 18.8 | 17.88 |
|           |                           | 44/5220 | 18.8 | 17.99 |
|           |                           | 48/5240 | 18.8 | 17.99 |
|           | 802.11n-HT40<br>(MCS0)    | 38/5190 | 12.5 | 12.02 |
|           |                           | 46/5230 | 18.3 | 17.49 |
|           | 802.11ac-VHT20<br>(6M)    | 36/5180 | 13.5 | 12.15 |
|           |                           | 40/5200 | 18.8 | 17.89 |
|           |                           | 44/5220 | 18.8 | 17.99 |
|           |                           | 48/5240 | 18.8 | 17.74 |
|           | 802.11ac-VHT40<br>(MCS0)  | 38/5190 | 12.5 | 11.86 |
|           |                           | 46/5230 | 18.3 | 17.45 |
|           | 802.11ac-VHT80<br>(MCS0)  | 42/5210 | 9.5  | 8.95  |
|           | 802.11ac-VHT160<br>(MCS0) | 50/5250 | 9.5  | 8.59  |

| Wi-Fi 5G (U-NII-2A)<br>(REC Off) |                          | Channel<br>/Frequency(MHz) | Maximum Output Power (dBm) |       |
|----------------------------------|--------------------------|----------------------------|----------------------------|-------|
| Antenna                          | Mode                     |                            | Tune-up                    | Meas. |
| Antenna 1                        | 802.11a<br>(6M)          | 52/5260                    | 16.0                       | 15.67 |
|                                  |                          | 56/5280                    | 16.0                       | 15.59 |
|                                  |                          | 60/5300                    | 16.0                       | 15.26 |
|                                  |                          | 64/5320                    | 10.5                       | 9.47  |
|                                  | 802.11n-HT20<br>(MCS0)   | 52/5260                    | 16.0                       | 15.07 |
|                                  |                          | 56/5280                    | 16.0                       | 15.05 |
|                                  |                          | 60/5300                    | 16.0                       | 14.71 |
|                                  |                          | 64/5320                    | 10.5                       | 9.07  |
|                                  | 802.11n-HT40<br>(MCS0)   | 54/5270                    | 15.5                       | 14.61 |
|                                  |                          | 62/5310                    | 9.0                        | 8.01  |
|                                  | 802.11ac-VHT20<br>(6M)   | 52/5260                    | 16.0                       | 15.08 |
|                                  |                          | 56/5280                    | 16.0                       | 14.69 |
|                                  |                          | 60/5300                    | 16.0                       | 14.77 |
|                                  |                          | 64/5320                    | 10.5                       | 9.04  |
|                                  | 802.11ac-VHT40<br>(MCS0) | 54/5270                    | 15.5                       | 14.55 |
|                                  |                          | 62/5310                    | 9.0                        | 7.04  |
|                                  | 802.11ac-VHT80<br>(MCS0) | 58/5290                    | 6.5                        | 5.75  |
| Antenna 2                        | 802.11a<br>(6M)          | 52/5260                    | 15.5                       | 15.05 |
|                                  |                          | 56/5280                    | 15.5                       | 15.08 |
|                                  |                          | 60/5300                    | 15.5                       | 15.09 |
|                                  |                          | 64/5320                    | 10.5                       | 9.39  |
|                                  | 802.11n-HT20<br>(MCS0)   | 52/5260                    | 15.5                       | 14.34 |
|                                  |                          | 56/5280                    | 15.5                       | 14.05 |
|                                  |                          | 60/5300                    | 15.5                       | 13.85 |
|                                  |                          | 64/5320                    | 10.5                       | 9.41  |
|                                  | 802.11n-HT40<br>(MCS0)   | 54/5270                    | 15.0                       | 13.55 |
|                                  |                          | 62/5310                    | 9.0                        | 7.78  |
|                                  | 802.11ac-VHT20<br>(6M)   | 52/5260                    | 15.5                       | 14.35 |
|                                  |                          | 56/5280                    | 15.5                       | 14.04 |
|                                  |                          | 60/5300                    | 15.5                       | 13.83 |
|                                  |                          | 64/5320                    | 10.5                       | 9.31  |
|                                  | 802.11ac-VHT40<br>(MCS0) | 54/5270                    | 15.0                       | 13.70 |
|                                  |                          | 62/5310                    | 9.0                        | 7.72  |
|                                  | 802.11ac-VHT80<br>(MCS0) | 58/5290                    | 6.5                        | 5.37  |
| CDD/ MIMO                        | 802.11a                  | 52/5260                    | 18.8                       | 18.40 |

|  |                          |         |      |       |
|--|--------------------------|---------|------|-------|
|  | (6M)                     | 56/5280 | 18.8 | 18.12 |
|  |                          | 60/5300 | 18.8 | 17.86 |
|  |                          | 64/5320 | 13.5 | 12.42 |
|  | 802.11n-HT20<br>(MCS0)   | 52/5260 | 18.8 | 17.72 |
|  |                          | 56/5280 | 18.8 | 17.59 |
|  |                          | 60/5300 | 18.8 | 17.31 |
|  |                          | 64/5320 | 13.5 | 12.25 |
|  | 802.11n-HT40<br>(MCS0)   | 54/5270 | 18.3 | 17.11 |
|  |                          | 62/5310 | 12.0 | 10.42 |
|  | 802.11ac-VHT20<br>(6M)   | 52/5260 | 18.8 | 17.75 |
|  |                          | 56/5280 | 18.8 | 17.38 |
|  |                          | 60/5300 | 18.8 | 17.32 |
|  |                          | 64/5320 | 13.5 | 12.18 |
|  | 802.11ac-VHT40<br>(MCS0) | 54/5270 | 18.3 | 17.16 |
|  |                          | 62/5310 | 12.0 | 10.40 |
|  | 802.11ac-VHT80<br>(MCS0) | 58/5290 | 9.5  | 8.19  |

| Wi-Fi 5G (U-NII-2C)<br>(REC Off) |                        | Channel<br>/Frequency(MHz) | Maximum Output Power (dBm) |       |
|----------------------------------|------------------------|----------------------------|----------------------------|-------|
| Antenna                          | Mode                   |                            | Tune-up                    | Meas. |
| Antenna 1                        | 802.11a<br>(6M)        | 100/5500                   | 10.5                       | 9.26  |
|                                  |                        | 104/5520                   | 16.0                       | 14.42 |
|                                  |                        | 108/5540                   | 16.0                       | 14.33 |
|                                  |                        | 112/5560                   | 16.0                       | 14.66 |
|                                  |                        | 116/5580                   | 16.0                       | 14.74 |
|                                  |                        | 120/5600                   | 16.0                       | 14.66 |
|                                  |                        | 124/5620                   | 16.0                       | 14.69 |
|                                  |                        | 128/5640                   | 16.0                       | 14.73 |
|                                  |                        | 132/5660                   | 16.0                       | 14.71 |
|                                  |                        | 136/5680                   | 16.0                       | 14.59 |
|                                  |                        | 140/5700                   | 11.0                       | 10.80 |
|                                  | 802.11n-HT20<br>(MCS0) | 100/5500                   | 10.5                       | 9.13  |
|                                  |                        | 104/5520                   | 16.0                       | 14.93 |
|                                  |                        | 108/5540                   | 16.0                       | 14.91 |
|                                  |                        | 112/5560                   | 16.0                       | 14.92 |
|                                  |                        | 116/5580                   | 16.0                       | 14.77 |
|                                  |                        | 120/5600                   | 16.0                       | 14.83 |
|                                  |                        | 124/5620                   | 16.0                       | 14.75 |
|                                  |                        | 128/5640                   | 16.0                       | 14.32 |

|           |                           |          |      |       |
|-----------|---------------------------|----------|------|-------|
|           |                           | 132/5660 | 16.0 | 15.12 |
|           |                           | 136/5680 | 16.0 | 15.11 |
|           |                           | 140/5700 | 11.0 | 9.53  |
|           | 802.11n-HT40<br>(MCS0)    | 102/5510 | 9.5  | 8.24  |
|           |                           | 110/5550 | 15.5 | 14.22 |
|           |                           | 118/5590 | 15.5 | 14.45 |
|           |                           | 126/5630 | 15.5 | 13.65 |
|           |                           | 134/5670 | 9.5  | 7.77  |
|           |                           | 100/5500 | 10.5 | 9.03  |
|           |                           | 104/5520 | 16.0 | 14.92 |
|           | 802.11ac-VHT20<br>(6M)    | 108/5540 | 16.0 | 14.82 |
|           |                           | 112/5560 | 16.0 | 14.96 |
|           |                           | 116/5580 | 16.0 | 14.95 |
|           |                           | 120/5600 | 16.0 | 14.90 |
|           |                           | 124/5620 | 16.0 | 15.21 |
|           |                           | 128/5640 | 16.0 | 14.43 |
|           |                           | 132/5660 | 16.0 | 15.02 |
|           |                           | 136/5680 | 16.0 | 15.04 |
|           |                           | 140/5700 | 11.0 | 9.64  |
|           | 802.11ac-VHT40<br>(MCS0)  | 102/5510 | 9.5  | 8.45  |
|           |                           | 110/5550 | 15.5 | 14.23 |
|           |                           | 118/5590 | 15.5 | 14.38 |
|           |                           | 126/5630 | 15.5 | 14.38 |
|           |                           | 134/5670 | 9.5  | 7.81  |
|           | 802.11ac-VHT80<br>(MCS0)  | 106/5530 | 6.5  | 5.22  |
|           |                           | 122/5610 | 6.5  | 5.29  |
|           | 802.11ac-VHT160<br>(MCS0) | 114/5570 | 6.5  | 5.54  |
| Antenna 2 | 802.11a<br>(6M)           | 100/5500 | 10.5 | 9.53  |
|           |                           | 104/5520 | 15.5 | 14.08 |
|           |                           | 108/5540 | 15.5 | 14.17 |
|           |                           | 112/5560 | 15.5 | 14.34 |
|           |                           | 116/5580 | 15.5 | 14.46 |
|           |                           | 120/5600 | 15.5 | 14.70 |
|           |                           | 124/5620 | 15.5 | 14.72 |
|           |                           | 128/5640 | 15.5 | 14.72 |
|           |                           | 132/5660 | 15.5 | 14.77 |
|           |                           | 136/5680 | 15.5 | 14.86 |
|           |                           | 140/5700 | 11.0 | 10.62 |
|           | 802.11n-HT20              | 100/5500 | 10.5 | 9.07  |



|           |                           |          |      |       |
|-----------|---------------------------|----------|------|-------|
|           | (MCS0)                    | 104/5520 | 15.5 | 14.77 |
|           |                           | 108/5540 | 15.5 | 14.77 |
|           |                           | 112/5560 | 15.5 | 14.85 |
|           |                           | 116/5580 | 15.5 | 14.92 |
|           |                           | 120/5600 | 15.5 | 14.63 |
|           |                           | 124/5620 | 15.5 | 14.71 |
|           |                           | 128/5640 | 15.5 | 14.48 |
|           |                           | 132/5660 | 15.5 | 14.45 |
|           |                           | 136/5680 | 15.5 | 14.35 |
|           |                           | 140/5700 | 11.0 | 10.23 |
|           | 802.11n-HT40<br>(MCS0)    | 102/5510 | 9.5  | 8.22  |
|           |                           | 110/5550 | 15.0 | 13.41 |
|           |                           | 118/5590 | 15.0 | 13.72 |
|           |                           | 126/5630 | 15.0 | 13.95 |
|           |                           | 134/5670 | 9.5  | 9.00  |
|           | 802.11ac-VHT20<br>(6M)    | 100/5500 | 10.5 | 8.93  |
|           |                           | 104/5520 | 15.5 | 14.67 |
|           |                           | 108/5540 | 15.5 | 14.60 |
|           |                           | 112/5560 | 15.5 | 14.64 |
|           |                           | 116/5580 | 15.5 | 14.91 |
|           |                           | 120/5600 | 15.5 | 14.24 |
|           |                           | 124/5620 | 15.5 | 14.26 |
|           |                           | 128/5640 | 15.5 | 14.36 |
|           |                           | 132/5660 | 15.5 | 14.35 |
|           |                           | 136/5680 | 15.5 | 14.34 |
|           |                           | 140/5700 | 11.0 | 10.30 |
|           | 802.11ac-VHT40<br>(MCS0)  | 102/5510 | 9.5  | 7.92  |
|           |                           | 110/5550 | 15.0 | 13.16 |
|           |                           | 118/5590 | 15.0 | 13.37 |
|           |                           | 126/5630 | 15.0 | 13.83 |
|           |                           | 134/5670 | 9.5  | 8.70  |
|           | 802.11ac-VHT80<br>(MCS0)  | 106/5530 | 6.5  | 4.80  |
|           |                           | 122/5610 | 6.5  | 5.33  |
|           | 802.11ac-VHT160<br>(MCS0) | 114/5570 | 6.5  | 5.22  |
| CDD/ MIMO | 802.11a<br>(6M)           | 100/5500 | 13.5 | 12.41 |
|           |                           | 104/5520 | 18.8 | 17.28 |
|           |                           | 108/5540 | 18.8 | 17.27 |
|           |                           | 112/5560 | 18.8 | 17.54 |
|           |                           | 116/5580 | 18.8 | 17.54 |

|  |                          |          |      |       |
|--|--------------------------|----------|------|-------|
|  |                          | 120/5600 | 18.8 | 17.71 |
|  |                          | 124/5620 | 18.8 | 17.78 |
|  |                          | 128/5640 | 18.8 | 17.88 |
|  |                          | 132/5660 | 18.8 | 17.81 |
|  |                          | 136/5680 | 18.8 | 18.31 |
|  |                          | 140/5700 | 14.0 | 13.73 |
|  | 802.11n-HT20<br>(MCS0)   | 100/5500 | 13.5 | 12.12 |
|  |                          | 104/5520 | 18.8 | 17.88 |
|  |                          | 108/5540 | 18.8 | 17.86 |
|  |                          | 112/5560 | 18.8 | 17.91 |
|  |                          | 116/5580 | 18.8 | 17.54 |
|  |                          | 120/5600 | 18.8 | 17.73 |
|  |                          | 124/5620 | 18.8 | 17.84 |
|  |                          | 128/5640 | 18.8 | 17.43 |
|  |                          | 132/5660 | 18.8 | 17.82 |
|  |                          | 136/5680 | 18.8 | 17.76 |
|  |                          | 140/5700 | 14.0 | 12.91 |
|  | 802.11n-HT40<br>(MCS0)   | 102/5510 | 12.5 | 10.90 |
|  |                          | 110/5550 | 18.3 | 16.83 |
|  |                          | 118/5590 | 18.3 | 17.02 |
|  |                          | 126/5630 | 18.3 | 16.83 |
|  |                          | 134/5670 | 12.5 | 11.40 |
|  | 802.11ac-VHT20<br>(6M)   | 100/5500 | 13.5 | 11.97 |
|  |                          | 104/5520 | 18.8 | 17.80 |
|  |                          | 108/5540 | 18.8 | 17.72 |
|  |                          | 112/5560 | 18.8 | 17.81 |
|  |                          | 116/5580 | 18.8 | 17.93 |
|  |                          | 120/5600 | 18.8 | 17.60 |
|  |                          | 124/5620 | 18.8 | 17.25 |
|  |                          | 128/5640 | 18.8 | 17.40 |
|  |                          | 132/5660 | 18.8 | 17.70 |
|  |                          | 136/5680 | 18.8 | 17.70 |
|  |                          | 140/5700 | 14.0 | 13.01 |
|  | 802.11ac-VHT40<br>(MCS0) | 102/5510 | 12.5 | 11.22 |
|  |                          | 110/5550 | 18.3 | 16.74 |
|  |                          | 118/5590 | 18.3 | 16.90 |
|  |                          | 126/5630 | 18.3 | 16.72 |
|  |                          | 134/5670 | 12.5 | 11.25 |
|  | 802.11ac-VHT80<br>(MCS0) | 106/5530 | 9.5  | 7.99  |
|  |                          | 122/5610 | 9.5  | 8.29  |

|  |                           |          |     |      |
|--|---------------------------|----------|-----|------|
|  | 802.11ac-VHT160<br>(MCS0) | 114/5570 | 9.5 | 8.39 |
|--|---------------------------|----------|-----|------|

| Wi-Fi 5G (U-NII-3)<br>(REC Off) |                          | Channel<br>/Frequency(MHz) | Maximum Output Power (dBm) |       |
|---------------------------------|--------------------------|----------------------------|----------------------------|-------|
| Antenna                         | Mode                     |                            | Tune-up                    | Meas. |
| Antenna 1                       | 802.11a<br>(6M)          | 149/5745                   | 11.5                       | 11.42 |
|                                 |                          | 153/5760                   | 11.5                       | 10.55 |
|                                 |                          | 157/5785                   | 11.5                       | 10.89 |
|                                 |                          | 161/5800                   | 11.5                       | 10.87 |
|                                 |                          | 165/5825                   | 11.5                       | 11.43 |
|                                 | 802.11n-HT20<br>(MCS0)   | 149/5745                   | 11.5                       | 10.90 |
|                                 |                          | 153/5760                   | 11.5                       | 9.93  |
|                                 |                          | 157/5785                   | 11.5                       | 10.23 |
|                                 |                          | 161/5800                   | 11.5                       | 10.40 |
|                                 |                          | 165/5825                   | 11.5                       | 10.73 |
|                                 | 802.11n-HT40<br>(MCS0)   | 151/5755                   | 11.5                       | 10.95 |
|                                 |                          | 159/5795                   | 11.5                       | 11.04 |
|                                 | 802.11ac-VHT20<br>(6M)   | 149/5745                   | 11.5                       | 10.84 |
|                                 |                          | 153/5760                   | 11.5                       | 11.47 |
|                                 |                          | 157/5785                   | 11.5                       | 10.23 |
|                                 |                          | 161/5800                   | 11.5                       | 10.39 |
|                                 |                          | 165/5825                   | 11.5                       | 11.03 |
|                                 | 802.11ac-VHT40<br>(MCS0) | 151/5755                   | 11.5                       | 10.97 |
|                                 |                          | 159/5795                   | 11.5                       | 10.33 |
|                                 | 802.11ac-VHT80<br>(MCS0) | 155/5775                   | 11.5                       | 9.81  |
| Antenna 2                       | 802.11a<br>(6M)          | 149/5745                   | 11.5                       | 10.99 |
|                                 |                          | 153/5760                   | 11.5                       | 10.21 |
|                                 |                          | 157/5785                   | 11.5                       | 10.27 |
|                                 |                          | 161/5800                   | 11.5                       | 10.29 |
|                                 |                          | 165/5825                   | 11.5                       | 11.18 |
|                                 | 802.11n-HT20<br>(MCS0)   | 149/5745                   | 11.5                       | 10.47 |
|                                 |                          | 153/5760                   | 11.5                       | 11.08 |
|                                 |                          | 157/5785                   | 11.5                       | 11.45 |
|                                 |                          | 161/5800                   | 11.5                       | 10.07 |
|                                 |                          | 165/5825                   | 11.5                       | 10.75 |
|                                 | 802.11n-HT40<br>(MCS0)   | 151/5755                   | 11.5                       | 10.58 |
|                                 |                          | 159/5795                   | 11.5                       | 10.81 |
|                                 | 802.11ac-VHT20           | 149/5745                   | 11.5                       | 10.45 |

|           |                          |          |      |       |
|-----------|--------------------------|----------|------|-------|
|           | (6M)                     | 153/5760 | 11.5 | 11.18 |
|           |                          | 157/5785 | 11.5 | 11.41 |
|           |                          | 161/5800 | 11.5 | 10.11 |
|           |                          | 165/5825 | 11.5 | 11.10 |
|           | 802.11ac-VHT40<br>(MCS0) | 151/5755 | 11.5 | 10.54 |
|           |                          | 159/5795 | 11.5 | 10.46 |
|           | 802.11ac-VHT80<br>(MCS0) | 155/5775 | 11.5 | 9.90  |
| CDD/ MIMO | 802.11a<br>(6M)          | 149/5745 | 14.5 | 12.71 |
|           |                          | 153/5760 | 14.5 | 13.37 |
|           |                          | 157/5785 | 14.5 | 13.52 |
|           |                          | 161/5800 | 14.5 | 13.59 |
|           |                          | 165/5825 | 14.5 | 12.82 |
|           | 802.11n-HT20<br>(MCS0)   | 149/5745 | 14.5 | 13.69 |
|           |                          | 153/5760 | 14.5 | 14.24 |
|           |                          | 157/5785 | 14.5 | 13.08 |
|           |                          | 161/5800 | 14.5 | 13.24 |
|           |                          | 165/5825 | 14.5 | 13.74 |
|           | 802.11n-HT40<br>(MCS0)   | 151/5755 | 14.5 | 13.46 |
|           |                          | 159/5795 | 14.5 | 13.64 |
|           | 802.11ac-VHT20<br>(6M)   | 149/5745 | 14.5 | 12.87 |
|           |                          | 153/5760 | 14.5 | 14.33 |
|           |                          | 157/5785 | 14.5 | 13.78 |
|           |                          | 161/5800 | 14.5 | 13.26 |
|           |                          | 165/5825 | 14.5 | 13.27 |
|           | 802.11ac-VHT40<br>(MCS0) | 151/5755 | 14.5 | 14.18 |
|           |                          | 159/5795 | 14.5 | 13.82 |
|           | 802.11ac-VHT80<br>(MCS0) | 155/5775 | 14.5 | 12.88 |

## 9.5 Bluetooth Mode

| Bluetooth<br>(HIGH) | Conducted Power(dBm)   |                |                | Tune-up<br>Limit (dBm) |
|---------------------|------------------------|----------------|----------------|------------------------|
|                     | Channel/Frequency(MHz) |                |                |                        |
|                     | Ch 0/ 2402 MHz         | Ch 10/ 2412MHz | Ch 23/ 2425MHz |                        |
| GFSK                | 16.90                  | 16.80          | 16.80          | 18.30                  |
| π/4DQPSK            | 14.60                  | 14.70          | 14.60          | 16.40                  |
| 8DPSK               | 14.60                  | 14.60          | 14.50          | 16.40                  |
| Bluetooth           | Ch 24/ 2426MHz         | Ch 28/ 2430MHz | Ch 32/ 2434MHz | Tune-up<br>Limit (dBm) |
| GFSK                | 15.80                  | 15.70          | 15.50          | 17.30                  |
| π/4DQPSK            | 13.70                  | 13.50          | 13.60          | 15.40                  |
| 8DPSK               | 13.50                  | 13.60          | 13.50          | 15.40                  |
| Bluetooth           | Ch 33/ 2435MHz         | Ch 40/ 2442MHz | Ch 46/ 2448MHz | Tune-up<br>Limit (dBm) |
| GFSK                | 15.20                  | 15.40          | 15.20          | 16.90                  |
| π/4DQPSK            | 13.50                  | 13.70          | 13.60          | 15.00                  |
| 8DPSK               | 13.40                  | 13.50          | 13.60          | 15.00                  |
| Bluetooth           | Ch 47/ 2449MHz         | Ch 55/ 2457MHz | Ch 64/ 2466MHz | Tune-up<br>Limit (dBm) |
| GFSK                | 15.70                  | 15.70          | 15.50          | 17.20                  |
| π/4DQPSK            | 13.80                  | 13.70          | 13.50          | 15.30                  |
| 8DPSK               | 13.70                  | 13.80          | 13.60          | 15.30                  |
| Bluetooth           | Ch 65/ 2467MHz         | Ch 70/ 2472MHz | Ch 74/ 2476MHz | Tune-up<br>Limit (dBm) |
| GFSK                | 15.00                  | 14.80          | 14.70          | 16.50                  |
| π/4DQPSK            | 12.90                  | 13.00          | 12.80          | 14.60                  |
| 8DPSK               | 13.00                  | 13.10          | 12.90          | 14.60                  |
| Bluetooth           | Ch 75/ 2477MHz         | Ch 76/ 2478MHz | Ch 78/ 2480MHz | Tune-up<br>Limit (dBm) |
| GFSK                | 15.10                  | 15.00          | 15.00          | 16.70                  |
| π/4DQPSK            | 13.00                  | 13.20          | 13.00          | 14.80                  |
| 8DPSK               | 13.30                  | 13.10          | 12.90          | 14.80                  |

| Bluetooth<br>(NORMAL) | Conducted Power(dBm)   |                |                | Tune-up<br>Limit (dBm) |
|-----------------------|------------------------|----------------|----------------|------------------------|
|                       | Channel/Frequency(MHz) |                |                |                        |
|                       | Ch 0/2402 MHz          | Ch 6/2408 MHz  | Ch 10/2412 MHz |                        |
| GFSK                  | 9.10                   | 9.00           | 9.10           | 10.50                  |
| $\pi/4$ DQPSK         | 7.80                   | 7.60           | 7.50           | 8.50                   |
| 8DPSK                 | 7.80                   | 7.60           | 7.50           | 8.50                   |
| Bluetooth             | Ch 13/2415 MHz         | Ch 39/2441 MHz | Ch 68/2470 MHz | Tune-up<br>Limit (dBm) |
| GFSK                  | 10.20                  | 10.20          | 10.20          | 11.00                  |
| $\pi/4$ DQPSK         | 7.80                   | 7.80           | 7.80           | 9.00                   |
| 8DPSK                 | 7.80                   | 7.80           | 7.80           | 9.00                   |
| Bluetooth             | Ch 69/2471 MHz         | Ch 72/2474 MHz | Ch 78/2480 MHz | Tune-up<br>Limit (dBm) |
| GFSK                  | 8.10                   | 8.10           | 8.10           | 10.00                  |
| $\pi/4$ DQPSK         | 7.60                   | 7.30           | 7.40           | 8.50                   |
| 8DPSK                 | 7.60                   | 7.30           | 7.30           | 8.50                   |
| BLE                   | Ch 0/2402 MHz          | Ch 2/2408 MHz  | Ch 5/2412 MHz  | Tune-up<br>Limit (dBm) |
| GFSK                  | 7.71                   | 7.08           | 7.37           | 8.00                   |
| BLE                   | Ch 6/2415 MHz          | Ch 18/2441 MHz | Ch 31/2470 MHz | Tune-up<br>Limit (dBm) |
| GFSK                  | 7.44                   | 7.69           | 7.56           | 9.00                   |
| BLE                   | Ch 32/2471 MHz         | Ch 35/2474 MHz | Ch 39/2480 MHz | Tune-up<br>Limit (dBm) |
| GFSK                  | 6.87                   | 6.94           | 6.67           | 7.50                   |

## 10 Measured and Reported (Scaled) SAR Results

### 10.1 EUT Antenna Locations

The Detailed Antenna Locations refer to *Antenna Locations*.

| Overall (Length x Width): 158 mm x 73.4 mm          |           |            |           |            |          |             |
|-----------------------------------------------------|-----------|------------|-----------|------------|----------|-------------|
| Overall Diagonal: 169.07 mm/Display Diagonal: 161mm |           |            |           |            |          |             |
| Distance of the Antenna to the EUT surface/edge     |           |            |           |            |          |             |
| Antenna                                             | Back Side | Front side | Left Edge | Right Edge | Top Edge | Bottom Edge |
| Main-Antenna                                        | <25mm     | <25mm      | <25mm     | <25mm      | >25mm    | <25mm       |
| Second-Antenna                                      | <25mm     | <25mm      | <25mm     | >25mm      | <25mm    | >25mm       |
| Bluetooth/Wi-Fi Antenna 1                           | <25mm     | <25mm      | >25mm     | <25mm      | <25mm    | >25mm       |
| Wi-Fi Antenna 2                                     | <25mm     | <25mm      | <25mm     | >25mm      | <25mm    | >25mm       |
| Hotspot mode, Positions for SAR tests               |           |            |           |            |          |             |
| Mode                                                | Back Side | Front side | Left Edge | Right Edge | Top Edge | Bottom Edge |
| Main-Antenna                                        | Yes       | Yes        | Yes       | Yes        | No       | Yes         |
| Second-Antenna                                      | Yes       | Yes        | Yes       | No         | Yes      | No          |
| Bluetooth/Wi-Fi Antenna 1                           | Yes       | Yes        | No        | Yes        | Yes      | No          |
| Wi-Fi Antenna 2                                     | Yes       | Yes        | Yes       | No         | Yes      | No          |

Note: 1. Per KDB 941225 D06, when the overall device length and width are  $\geq 9\text{cm} \times 5\text{cm}$ , the test distance is 10mm. SAR must be measured for all sides and surfaces with a transmitting antenna located within 25mm from that surface or edge.

2. For smart phones with an overall diagonal dimension is 169.07mm. Per KDB 648474 D04, for smart phones with a display diagonal dimension  $> 15.0\text{ cm}$  or an overall diagonal dimension  $> 16.0\text{ cm}$ , product specific 10-g SAR must be tested as a phablet to determine SAR compliance. For Phablet, Since hotspot mode 1-g reported SAR  $< 1.2\text{ W/kg}$ , product specific 10-g SAR is no required.

3. Per FCC KDB 447498 D01,

for each exposure position, testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:

a)  $\leq 0.8\text{ W/kg}$  or  $2.0\text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is  $\leq 100\text{MHz}$

b)  $\leq 0.6\text{ W/kg}$  or  $1.5\text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz.

c)  $\leq 0.4\text{ W/kg}$  or  $1.0\text{ W/kg}$ , for 1-g or 10-g respectively, when the transmission band is  $\geq 200\text{ MHz}$ .

4. When the original highest measured SAR is  $\geq 0.80\text{ W/kg}$ , the measurement was repeated once.

5. Per FCC KDB Publication 648474 D04, SAR was evaluated without a headset connected to the device. Since the reported SAR was  $\leq 1.2\text{ W/kg}$ , no additional SAR evaluations using a headset cable were required.

## 10.2 Standalone SAR test exclusion considerations

Per KDB 447498 D01, the 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq 50$  mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$  for 1-g SAR and  $\leq 7.5$  for product specific 10-g SAR

- $f(\text{GHz})$  is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

Per KDB 447498 D01, when the minimum test separation distance is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion.

| Bluetooth<br>(BT HIGH)       | Distance<br>(mm) | MAXPower<br>(dBm) | Frequency<br>(MHz) | Ratio | Evaluation |
|------------------------------|------------------|-------------------|--------------------|-------|------------|
| Body-worn                    | 15               | 18.3              | 2480               | 7.10  | Yes        |
| Hotspot                      | 10               | 18.3              | 2480               | 10.65 | Yes        |
| Product Specific<br>10-g SAR | 5                | 18.3              | 2480               | 21.29 | Yes        |

| Bluetooth<br>(BT NORMAL)     | Distance<br>(mm) | MAXPower<br>(dBm) | Frequency<br>(MHz) | Ratio | Evaluation |
|------------------------------|------------------|-------------------|--------------------|-------|------------|
| Head                         | 5                | 11.00             | 2480               | 3.97  | Yes        |
| Body-worn                    | 15               | 11.00             | 2480               | 1.32  | No         |
| Hotspot                      | 10               | 11.00             | 2480               | 1.98  | No         |
| Product Specific<br>10-g SAR | 5                | 11.00             | 2480               | 3.97  | No         |



## 10.3 Measured SAR Results

**Table 9: GSM 850(Main-antenna)**
**Original**

| Test Position                                                                                                            | Cover Type | Sensor | Distance | Time slot | Duty Cycle | Channel/<br>Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|--------------------------------------------------------------------------------------------------------------------------|------------|--------|----------|-----------|------------|-----------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|                                                                                                                          |            |        |          |           |            |                             |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR                                                                                                                 |            |        |          |           |            |                             |               |                      |                              |                  |                |              |          |
| Left Cheek                                                                                                               | standard   | off    | 0mm      | GSM       | 1:8.3      | 190/836.6                   | 33.80         | 32.76                | 0.071                        | 0.055            | 1.27           | 0.091        | /        |
| Left Tilt                                                                                                                | standard   | off    | 0mm      | GSM       | 1:8.3      | 190/836.6                   | 33.80         | 32.76                | 0.034                        | 0.032            | 1.27           | 0.044        | /        |
| Right Cheek                                                                                                              | standard   | off    | 0mm      | GSM       | 1:8.3      | 190/836.6                   | 33.80         | 32.76                | 0.103                        | 0.085            | 1.27           | 0.131        | /        |
| Right Tilt                                                                                                               | standard   | off    | 0mm      | GSM       | 1:8.3      | 190/836.6                   | 33.80         | 32.76                | 0.034                        | 0.053            | 1.27           | 0.044        | /        |
| Left Cheek                                                                                                               | Battery2   | off    | 0mm      | GSM       | 1:8.3      | 190/836.6                   | 33.80         | 32.76                | 0.065                        | 0.042            | 1.27           | 0.083        | /        |
| Body-worn SAR                                                                                                            |            |        |          |           |            |                             |               |                      |                              |                  |                |              |          |
| Back Side                                                                                                                | standard   | off    | 15mm     | GSM       | 1:8.3      | 190/836.6                   | 33.80         | 32.76                | 0.137                        | -0.060           | 1.27           | 0.174        | /        |
| Front Side                                                                                                               | standard   | off    | 15mm     | GSM       | 1:8.3      | 190/836.6                   | 33.80         | 32.76                | 0.109                        | -0.070           | 1.27           | 0.138        | /        |
| Back Side                                                                                                                | Battery2   | off    | 15mm     | GSM       | 1:8.3      | 190/836.6                   | 33.80         | 32.76                | 0.102                        | 0.013            | 1.27           | 0.130        | /        |
| Hotspot SAR                                                                                                              |            |        |          |           |            |                             |               |                      |                              |                  |                |              |          |
| Back Side                                                                                                                | standard   | off    | 10mm     | 2Txslots  | 1:4.15     | 190/836.6                   | 30.80         | 29.48                | 0.181                        | -0.090           | 1.36           | 0.245        | /        |
| Front Side                                                                                                               | standard   | off    | 10mm     | 2Txslots  | 1:4.15     | 190/836.6                   | 30.80         | 29.48                | 0.156                        | -0.070           | 1.36           | 0.211        | /        |
| Left Edge                                                                                                                | standard   | off    | 10mm     | 2Txslots  | 1:4.15     | 190/836.6                   | 30.80         | 29.48                | 0.154                        | 0.032            | 1.36           | 0.209        | /        |
| Right Edge                                                                                                               | standard   | off    | 10mm     | 2Txslots  | 1:4.15     | 190/836.6                   | 30.80         | 29.48                | 0.103                        | 0.180            | 1.36           | 0.140        | /        |
| Top Edge                                                                                                                 | N/A        | N/A    | N/A      | N/A       | N/A        | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Bottom Edge                                                                                                              | standard   | off    | 10mm     | 2Txslots  | 1:4.15     | 190/836.6                   | 30.80         | 29.48                | 0.132                        | 0.060            | 1.36           | 0.179        | /        |
| Back Side                                                                                                                | Battery2   | off    | 10mm     | 2Txslots  | 1:4.15     | 190/836.6                   | 30.80         | 29.48                | 0.165                        | 0.100            | 1.36           | 0.224        | /        |
| Note: 1.The value with blue color is the maximum SAR Value of each test band.                                            |            |        |          |           |            |                             |               |                      |                              |                  |                |              |          |
| 2.When multiple slots are used, SAR should be tested to account for the maximum source-based time-averaged output power. |            |        |          |           |            |                             |               |                      |                              |                  |                |              |          |

| MAX Adjusted SAR |            |        |          |           |            |                         |                  |             |                     |                |                                |         |
|------------------|------------|--------|----------|-----------|------------|-------------------------|------------------|-------------|---------------------|----------------|--------------------------------|---------|
| Test Position    | Cover Type | Sensor | Distance | Time slot | Duty Cycle | Channel/Frequency (MHz) | Full power (dBm) | Tune-up dBm | Report SAR1g (mW/g) | Scaling Factor | Full power Report SAR1g (mW/g) | 0mm SAR |
| Back Side        | standard   | off    | 10mm     | 2Txslots  | 1:4.15     | 190/836.6               | 31.80            | 30.80       | 0.245               | 1.26           | 0.308                          | No      |
| Front Side       | standard   | off    | 10mm     | 2Txslots  | 1:4.15     | 190/836.6               | 31.80            | 30.80       | 0.211               | 1.26           | 0.266                          | No      |
| Left Edge        | standard   | off    | 10mm     | 2Txslots  | 1:4.15     | 190/836.6               | 31.80            | 30.80       | 0.209               | 1.26           | 0.263                          | No      |
| Right Edge       | standard   | off    | 10mm     | 2Txslots  | 1:4.15     | 190/836.6               | 31.80            | 30.80       | 0.140               | 1.26           | 0.176                          | No      |
| Top Edge         | N/A        | N/A    | N/A      | N/A       | N/A        | N/A                     | N/A              | N/A         | N/A                 | N/A            | N/A                            | N/A     |
| Bottom Edge      | standard   | off    | 10mm     | 2Txslots  | 1:4.15     | 190/836.6               | 31.80            | 30.80       | 0.179               | 1.26           | 0.225                          | No      |
| Back Side        | Battery2   | off    | 10mm     | 2Txslots  | 1:4.15     | 190/836.6               | 31.80            | 30.80       | 0.224               | 1.26           | 0.282                          | No      |

Note: According to 648474 D04 Handset SAR v01r03, For Phablet, Since hotspot mode 1-greortedSAR < 1.2 W/kg, Product Specific 10-g SAR is not required.

### Variant

| Test Position                                                                 | Cover Type | Sensor | Distance | Time slot | Duty Cycle | Channel/<br>Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No |
|-------------------------------------------------------------------------------|------------|--------|----------|-----------|------------|-----------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|---------|
|                                                                               |            |        |          |           |            |                             |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |         |
| Head SAR                                                                      |            |        |          |           |            |                             |               |                      |                              |                  |                |              |         |
| Right Cheek                                                                   | standard   | off    | 0mm      | GSM       | 1:8.3      | 190/836.6                   | 33.80         | 32.76                | 0.110                        | -0.090           | 1.27           | 0.140        | 19      |
| Right Cheek                                                                   | SIM2       | off    | 0mm      | GSM       | 1:8.3      | 190/836.6                   | 33.80         | 32.76                | 0.106                        | -0.078           | 1.27           | 0.135        | /       |
| Body-worn SAR                                                                 |            |        |          |           |            |                             |               |                      |                              |                  |                |              |         |
| Back Side                                                                     | standard   | off    | 15mm     | GSM       | 1:8.3      | 190/836.6                   | 33.80         | 32.76                | 0.145                        | 0.020            | 1.27           | 0.184        | 20      |
| Back Side                                                                     | SIM2       | off    | 15mm     | GSM       | 1:8.3      | 190/836.6                   | 33.80         | 32.76                | 0.139                        | 0.023            | 1.27           | 0.177        | /       |
| Hotspot SAR                                                                   |            |        |          |           |            |                             |               |                      |                              |                  |                |              |         |
| Back Side                                                                     | standard   | off    | 10mm     | 2Txslots  | 1:4.15     | 190/836.6                   | 30.80         | 29.48                | 0.193                        | -0.040           | 1.36           | 0.262        | 21      |
| Back Side                                                                     | SIM2       | off    | 10mm     | 2Txslots  | 1:4.15     | 190/836.6                   | 30.80         | 29.48                | 0.188                        | -0.031           | 1.36           | 0.255        | /       |
| Note: 1.The value with blue color is the maximum SAR Value of each test band. |            |        |          |           |            |                             |               |                      |                              |                  |                |              |         |

**Table 10: GSM 1900(Main-antenna)**
**Original**

| Test Position                                                                                                            | Cover Type | Sensor | Distance | Time slot | Duty Cycle | Channel/<br>Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|--------------------------------------------------------------------------------------------------------------------------|------------|--------|----------|-----------|------------|-----------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|                                                                                                                          |            |        |          |           |            |                             |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR                                                                                                                 |            |        |          |           |            |                             |               |                      |                              |                  |                |              |          |
| Left Cheek                                                                                                               | standard   | off    | 0mm      | GSM       | 1:8.3      | 661/1880                    | 30.80         | 30.34                | 0.065                        | 0.038            | 1.11           | 0.072        | /        |
| Left Tilt                                                                                                                | standard   | off    | 0mm      | GSM       | 1:8.3      | 661/1880                    | 30.80         | 30.34                | 0.043                        | 0.050            | 1.11           | 0.048        | /        |
| Right Cheek                                                                                                              | standard   | off    | 0mm      | GSM       | 1:8.3      | 661/1880                    | 30.80         | 30.34                | 0.069                        | 0.033            | 1.11           | 0.077        | /        |
| Right Tilt                                                                                                               | standard   | off    | 0mm      | GSM       | 1:8.3      | 661/1880                    | 30.80         | 30.34                | 0.037                        | 0.070            | 1.11           | 0.041        | /        |
| Right Cheek                                                                                                              | Battery2   | off    | 0mm      | GSM       | 1:8.3      | 661/1880                    | 30.80         | 30.34                | 0.059                        | 0.100            | 1.11           | 0.066        | /        |
| Body-worn SAR                                                                                                            |            |        |          |           |            |                             |               |                      |                              |                  |                |              |          |
| Back Side                                                                                                                | standard   | off    | 15mm     | GSM       | 1:8.3      | 661/1880                    | 30.80         | 30.34                | 0.136                        | -0.090           | 1.11           | 0.151        | /        |
| Front Side                                                                                                               | standard   | off    | 15mm     | GSM       | 1:8.3      | 661/1880                    | 30.80         | 30.34                | 0.100                        | 0.020            | 1.11           | 0.111        | /        |
| Back Side                                                                                                                | Battery2   | off    | 15mm     | GSM       | 1:8.3      | 661/1880                    | 30.80         | 30.34                | 0.135                        | 0.036            | 1.11           | 0.150        | /        |
| Hotspot SAR                                                                                                              |            |        |          |           |            |                             |               |                      |                              |                  |                |              |          |
| Back Side                                                                                                                | standard   | off    | 10mm     | 2Txslots  | 1:4.15     | 661/1880                    | 27.80         | 27.22                | 0.232                        | -0.050           | 1.14           | 0.265        | /        |
| Front Side                                                                                                               | standard   | off    | 10mm     | 2Txslots  | 1:4.15     | 661/1880                    | 27.80         | 27.22                | 0.158                        | 0.000            | 1.14           | 0.181        | /        |
| Left Edge                                                                                                                | standard   | off    | 10mm     | 2Txslots  | 1:4.15     | 661/1880                    | 27.80         | 27.22                | 0.061                        | 0.020            | 1.14           | 0.069        | /        |
| Right Edge                                                                                                               | standard   | off    | 10mm     | 2Txslots  | 1:4.15     | 661/1880                    | 27.80         | 27.22                | 0.097                        | 0.050            | 1.14           | 0.111        | /        |
| Top Edge                                                                                                                 | N/A        | N/A    | N/A      | N/A       | N/A        | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Bottom Edge                                                                                                              | standard   | off    | 10mm     | 2Txslots  | 1:4.15     | 661/1880                    | 27.80         | 27.22                | 0.338                        | 0.090            | 1.14           | 0.386        | /        |
| Bottom Edge                                                                                                              | Battery2   | off    | 10mm     | 2Txslots  | 1:4.15     | 661/1880                    | 27.80         | 27.22                | 0.314                        | -0.054           | 1.14           | 0.359        | /        |
| Note: 1.The value with blue color is the maximum SAR Value of each test band.                                            |            |        |          |           |            |                             |               |                      |                              |                  |                |              |          |
| 2.When multiple slots are used, SAR should be tested to account for the maximum source-based time-averaged output power. |            |        |          |           |            |                             |               |                      |                              |                  |                |              |          |

| MAX Adjusted SAR |            |        |          |           |            |                         |                  |             |                     |                |                                |         |
|------------------|------------|--------|----------|-----------|------------|-------------------------|------------------|-------------|---------------------|----------------|--------------------------------|---------|
| Test Position    | Cover Type | Sensor | Distance | Time slot | Duty Cycle | Channel/Frequency (MHz) | Full power (dBm) | Tune-up dBm | Report SAR1g (mW/g) | Scaling Factor | Full power Report SAR1g (mW/g) | 0mm SAR |
| Back Side        | standard   | off    | 10mm     | 2Txslots  | 1:4.15     | 661/1880                | 28.80            | 27.80       | 0.265               | 1.26           | 0.334                          | No      |
| Front Side       | standard   | off    | 10mm     | 2Txslots  | 1:4.15     | 661/1880                | 28.80            | 27.80       | 0.181               | 1.26           | 0.228                          | No      |
| Left Edge        | standard   | off    | 10mm     | 2Txslots  | 1:4.15     | 661/1880                | 28.80            | 27.80       | 0.069               | 1.26           | 0.087                          | No      |
| Right Edge       | standard   | off    | 10mm     | 2Txslots  | 1:4.15     | 661/1880                | 28.80            | 27.80       | 0.111               | 1.26           | 0.140                          | No      |
| Top Edge         | N/A        | N/A    | N/A      | N/A       | N/A        | N/A                     | N/A              | N/A         | N/A                 | N/A            | N/A                            | N/A     |
| Bottom Edge      | standard   | off    | 10mm     | 2Txslots  | 1:4.15     | 661/1880                | 28.80            | 27.80       | 0.386               | 1.26           | 0.486                          | No      |
| Bottom Edge      | Battery2   | off    | 10mm     | 2Txslots  | 1:4.15     | 661/1880                | 28.80            | 27.80       | 0.359               | 1.26           | 0.452                          | No      |

Note: According to 648474 D04 Handset SAR v01r03, For Phablet, Since hotspot mode 1-greortedSAR < 1.2 W/kg, Product Specific 10-g SAR is not required.

### Variant

| Test Position                                                                 | Cover Type | Sensor | Distance | Time slot | Duty Cycle | Channel/ Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No |
|-------------------------------------------------------------------------------|------------|--------|----------|-----------|------------|--------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|---------|
|                                                                               |            |        |          |           |            |                          |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |         |
| Head SAR                                                                      |            |        |          |           |            |                          |               |                      |                              |                  |                |              |         |
| Right Cheek                                                                   | standard   | off    | 0mm      | GSM       | 1:8.3      | 661/1880                 | 30.80         | 30.34                | 0.073                        | -0.030           | 1.11           | 0.081        | 22      |
| Right Cheek                                                                   | SIM2       | off    | 0mm      | GSM       | 1:8.3      | 661/1880                 | 30.80         | 30.34                | 0.070                        | -0.027           | 1.11           | 0.078        | /       |
| Body-worn SAR                                                                 |            |        |          |           |            |                          |               |                      |                              |                  |                |              |         |
| Back Side                                                                     | standard   | off    | 15mm     | GSM       | 1:8.3      | 661/1880                 | 30.80         | 30.34                | 0.142                        | -0.030           | 1.11           | 0.158        | 23      |
| Back Side                                                                     | SIM2       | off    | 15mm     | GSM       | 1:8.3      | 661/1880                 | 30.80         | 30.34                | 0.137                        | 0.031            | 1.11           | 0.152        | /       |
| Hotspot SAR                                                                   |            |        |          |           |            |                          |               |                      |                              |                  |                |              |         |
| Bottom Edge                                                                   | standard   | off    | 10mm     | 2Txslots  | 1:4.15     | 661/1880                 | 27.80         | 27.22                | 0.357                        | 0.020            | 1.14           | 0.408        | 24      |
| Bottom Edge                                                                   | SIM2       | off    | 10mm     | 2Txslots  | 1:4.15     | 661/1880                 | 27.80         | 27.22                | 0.355                        | 0.017            | 1.14           | 0.406        | /       |
| Note: 1.The value with blue color is the maximum SAR Value of each test band. |            |        |          |           |            |                          |               |                      |                              |                  |                |              |         |

**Table 11: UMTS Band II(Main-antenna)**
**Original**

| Test Position | Cover Type | Sensor | Distance | Channel Type | Duty Cycle | Channel/Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|---------------|------------|--------|----------|--------------|------------|-------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|               |            |        |          |              |            |                         |               |                      | Measured SAR 1g              | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR      |            |        |          |              |            |                         |               |                      |                              |                  |                |              |          |
| Left Cheek    | standard   | off    | 0mm      | RMC 12.2K    | 1:1        | 9400/1880               | 25.00         | 23.24                | 0.144                        | 0.140            | 1.50           | 0.216        | /        |
| Left Tilt     | standard   | off    | 0mm      | RMC 12.2K    | 1:1        | 9400/1880               | 25.00         | 23.24                | 0.093                        | 0.010            | 1.50           | 0.139        | /        |
| Right Cheek   | standard   | off    | 0mm      | RMC 12.2K    | 1:1        | 9400/1880               | 25.00         | 23.24                | 0.176                        | 0.047            | 1.50           | 0.264        | /        |
| Right Tilt    | standard   | off    | 0mm      | RMC 12.2K    | 1:1        | 9400/1880               | 25.00         | 23.24                | 0.098                        | 0.022            | 1.50           | 0.147        | /        |
| Right Cheek   | Battery2   | off    | 0mm      | RMC 12.2K    | 1:1        | 9400/1880               | 25.00         | 23.24                | 0.155                        | -0.020           | 1.50           | 0.232        | /        |
| Body-worn SAR |            |        |          |              |            |                         |               |                      |                              |                  |                |              |          |
| Back Side     | standard   | off    | 15mm     | RMC 12.2K    | 1:1        | 9400/1880               | 25.00         | 23.24                | 0.340                        | 0.150            | 1.50           | 0.510        | /        |
| Front Side    | standard   | off    | 15mm     | RMC 12.2K    | 1:1        | 9400/1880               | 25.00         | 23.24                | 0.274                        | -0.070           | 1.50           | 0.411        | /        |
| Back Side     | Battery2   | off    | 15mm     | RMC 12.2K    | 1:1        | 9400/1880               | 25.00         | 23.24                | 0.308                        | 0.018            | 1.50           | 0.462        | /        |
| Hotspot SAR   |            |        |          |              |            |                         |               |                      |                              |                  |                |              |          |
| Back Side     | standard   | off    | 10mm     | RMC 12.2K    | 1:1        | 9400/1880               | 21.50         | 20.72                | 0.238                        | 0.020            | 1.20           | 0.285        | /        |
| Front Side    | standard   | off    | 10mm     | RMC 12.2K    | 1:1        | 9400/1880               | 21.50         | 20.72                | 0.198                        | 0.040            | 1.20           | 0.237        | /        |
| Left Edge     | standard   | off    | 10mm     | RMC 12.2K    | 1:1        | 9400/1880               | 21.50         | 20.72                | 0.101                        | 0.090            | 1.20           | 0.121        | /        |
| Right Edge    | standard   | off    | 10mm     | RMC 12.2K    | 1:1        | 9400/1880               | 21.50         | 20.72                | 0.092                        | 0.110            | 1.20           | 0.110        | /        |
| Top Edge      | N/A        | N/A    | N/A      | N/A          | N/A        | N/A                     | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Bottom Edge   | standard   | off    | 10mm     | RMC 12.2K    | 1:1        | 9400/1880               | 21.50         | 20.72                | 0.412                        | 0.020            | 1.20           | 0.493        | /        |
| Bottom Edge   | Battery2   | off    | 10mm     | RMC 12.2K    | 1:1        | 9400/1880               | 21.50         | 20.72                | 0.371                        | 0.041            | 1.20           | 0.444        | /        |

Note: 1. The value with blue color is the maximum SAR Value of each test band.

2. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is  $\leq \frac{1}{4}$  dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is  $\leq 1.2$  W/kg, SAR measurement is not required for the secondary mode.

| MAX Adjusted SAR |            |        |          |              |            |                         |                  |             |                     |                |                                |         |
|------------------|------------|--------|----------|--------------|------------|-------------------------|------------------|-------------|---------------------|----------------|--------------------------------|---------|
| Test Position    | Cover Type | Sensor | Distance | Channel Type | Duty Cycle | Channel/Frequency (MHz) | Full power (dBm) | Tune-up dBm | Report SAR1g (mW/g) | Scaling Factor | Full power Report SAR1g (mW/g) | 0mm SAR |
| Back Side        | standard   | off    | 10mm     | RMC 12.2K    | 1:1        | 9400/1880               | 25.00            | 21.50       | 0.285               | 2.24           | 0.638                          | No      |
| Front Side       | standard   | off    | 10mm     | RMC 12.2K    | 1:1        | 9400/1880               | 25.00            | 21.50       | 0.237               | 2.24           | 0.531                          | No      |
| Left Edge        | standard   | off    | 10mm     | RMC 12.2K    | 1:1        | 9400/1880               | 25.00            | 21.50       | 0.121               | 2.24           | 0.271                          | No      |
| Right Edge       | standard   | off    | 10mm     | RMC 12.2K    | 1:1        | 9400/1880               | 25.00            | 21.50       | 0.110               | 2.24           | 0.246                          | No      |
| Top Edge         | N/A        | N/A    | N/A      | N/A          | N/A        | N/A                     | N/A              | N/A         | N/A                 | N/A            | N/A                            | N/A     |
| Bottom Edge      | standard   | off    | 10mm     | RMC 12.2K    | 1:1        | 9400/1880               | 25.00            | 21.50       | 0.493               | 2.24           | 1.104                          | No      |
| Bottom Edge      | Battery2   | off    | 10mm     | RMC 12.2K    | 1:1        | 9400/1880               | 25.00            | 21.50       | 0.444               | 2.24           | 0.994                          | No      |

Note: According to 648474 D04 Handset SAR v01r03, For Phablet, Since hotspot mode 1-greportedSAR < 1.2 W/kg, Product Specific 10-g SAR is not required.

### Variant

| Test Position                                                                 | Cover Type | Sensor | Distance | Channel Type | Duty Cycle | Channel/Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|-------------------------------------------------------------------------------|------------|--------|----------|--------------|------------|-------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|                                                                               |            |        |          |              |            |                         |               |                      | Measured SAR 1g              | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR                                                                      |            |        |          |              |            |                         |               |                      |                              |                  |                |              |          |
| Right Cheek                                                                   | standard   | off    | 0mm      | RMC 12.2K    | 1:1        | 9400/1880               | 25.00         | 23.24                | 0.192                        | 0.026            | 1.50           | 0.288        | 25       |
| Right Cheek                                                                   | SIM2       | off    | 0mm      | RMC 12.2K    | 1:1        | 9400/1880               | 25.00         | 23.24                | 0.190                        | 0.022            | 1.50           | 0.285        | /        |
| Body-worn SAR                                                                 |            |        |          |              |            |                         |               |                      |                              |                  |                |              |          |
| Back Side                                                                     | standard   | off    | 15mm     | RMC 12.2K    | 1:1        | 9400/1880               | 25.00         | 23.24                | 0.329                        | -0.070           | 1.50           | 0.493        | 26       |
| Back Side                                                                     | SIM2       | off    | 15mm     | RMC 12.2K    | 1:1        | 9400/1880               | 25.00         | 23.24                | 0.326                        | 0.066            | 1.50           | 0.489        | /        |
| Hotspot SAR                                                                   |            |        |          |              |            |                         |               |                      |                              |                  |                |              |          |
| Bottom Edge                                                                   | standard   | off    | 10mm     | RMC 12.2K    | 1:1        | 9400/1880               | 21.50         | 20.72                | 0.337                        | 0.021            | 1.20           | 0.403        | 27       |
| Bottom Edge                                                                   | SIM2       | off    | 10mm     | RMC 12.2K    | 1:1        | 9400/1880               | 21.50         | 20.72                | 0.033                        | 0.027            | 1.20           | 0.040        | /        |
| Note: 1.The value with blue color is the maximum SAR Value of each test band. |            |        |          |              |            |                         |               |                      |                              |                  |                |              |          |

**Table 12: UMTS Band IV(Main-antenna)**
**Original**

| Test Position | Cover Type | Sensor | Distance | Channel Type | Duty Cycle | Channel/Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|---------------|------------|--------|----------|--------------|------------|-------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|               |            |        |          |              |            |                         |               |                      | Measured SAR 1g              | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR      |            |        |          |              |            |                         |               |                      |                              |                  |                |              |          |
| Left Cheek    | standard   | off    | 0mm      | RMC 12.2K    | 1:1        | 1413/1732.6             | 24.50         | 22.65                | 0.129                        | 0.110            | 1.53           | 0.198        | /        |
| Left Tilt     | standard   | off    | 0mm      | RMC 12.2K    | 1:1        | 1413/1732.6             | 24.50         | 22.65                | 0.057                        | 0.110            | 1.53           | 0.087        | /        |
| Right Cheek   | standard   | off    | 0mm      | RMC 12.2K    | 1:1        | 1413/1732.6             | 24.50         | 22.65                | 0.128                        | 0.040            | 1.53           | 0.196        | /        |
| Right Tilt    | standard   | off    | 0mm      | RMC 12.2K    | 1:1        | 1413/1732.6             | 24.50         | 22.65                | 0.070                        | 0.026            | 1.53           | 0.108        | /        |
| Left Cheek    | Battery2   | off    | 0mm      | RMC 12.2K    | 1:1        | 1413/1732.6             | 24.50         | 22.65                | 0.112                        | -0.050           | 1.53           | 0.171        | /        |
| Body-worn SAR |            |        |          |              |            |                         |               |                      |                              |                  |                |              |          |
| Back Side     | standard   | off    | 15mm     | RMC 12.2K    | 1:1        | 1413/1732.6             | 24.50         | 22.65                | 0.270                        | -0.020           | 1.53           | 0.413        | /        |
| Front Side    | standard   | off    | 15mm     | RMC 12.2K    | 1:1        | 1413/1732.6             | 24.50         | 22.65                | 0.246                        | 0.050            | 1.53           | 0.377        | /        |
| Back Side     | Battery2   | off    | 15mm     | RMC 12.2K    | 1:1        | 1413/1732.6             | 24.50         | 22.65                | 0.250                        | 0.013            | 1.53           | 0.383        | /        |
| Hotspot SAR   |            |        |          |              |            |                         |               |                      |                              |                  |                |              |          |
| Back Side     | standard   | off    | 10mm     | RMC 12.2K    | 1:1        | 1413/1732.6             | 21.50         | 20.54                | 0.194                        | 0.070            | 1.25           | 0.242        | /        |
| Front Side    | standard   | off    | 10mm     | RMC 12.2K    | 1:1        | 1413/1732.6             | 21.50         | 20.54                | 0.131                        | -0.030           | 1.25           | 0.163        | /        |
| Left Edge     | standard   | off    | 10mm     | RMC 12.2K    | 1:1        | 1413/1732.6             | 21.50         | 20.54                | 0.072                        | 0.090            | 1.25           | 0.090        | /        |
| Right Edge    | standard   | off    | 10mm     | RMC 12.2K    | 1:1        | 1413/1732.6             | 21.50         | 20.54                | 0.067                        | 0.010            | 1.25           | 0.084        | /        |
| Top Edge      | N/A        | N/A    | N/A      | N/A          | N/A        | N/A                     | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Bottom Edge   | standard   | off    | 10mm     | RMC 12.2K    | 1:1        | 1413/1732.6             | 21.50         | 20.54                | 0.321                        | -0.050           | 1.25           | 0.400        | /        |
| Bottom Edge   | Battery2   | off    | 10mm     | RMC 12.2K    | 1:1        | 1413/1732.6             | 21.50         | 20.54                | 0.292                        | -0.021           | 1.25           | 0.364        | /        |

Note: 1.The value with blue color is the maximum SAR Value of each test band.

2. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is  $\leq \frac{1}{4}$  dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is  $\leq 1.2$  W/kg, SAR measurement is not required for the secondary mode.

**MAX Adjusted SAR**

| Test Position | Cover Type | Channel/Frequency(MHz) | Full power (dBm) | Tune-up (dBm) | Report SAR1g (mW/g) | Scaling Factor | Full power Report SAR1g(mW/g) | 0mm SAR |
|---------------|------------|------------------------|------------------|---------------|---------------------|----------------|-------------------------------|---------|
| Back Side     | standard   | 1413/1732.6            | 24.50            | 21.50         | 0.242               | 2.00           | 0.483                         | No      |
| Front Side    | standard   | 1413/1732.6            | 24.50            | 21.50         | 0.163               | 2.00           | 0.325                         | No      |
| Left Edge     | standard   | 1413/1732.6            | 24.50            | 21.50         | 0.090               | 2.00           | 0.180                         | No      |
| Right Edge    | standard   | 1413/1732.6            | 24.50            | 21.50         | 0.084               | 2.00           | 0.168                         | No      |
| Top Edge      | N/A        | N/A                    | N/A              | N/A           | N/A                 | N/A            | N/A                           | N/A     |
| Bottom Edge   | standard   | 1413/1732.6            | 24.50            | 21.50         | 0.400               | 2.00           | 0.798                         | No      |
| Bottom Edge   | Battery2   | 1413/1732.6            | 24.50            | 21.50         | 0.364               | 2.00           | 0.726                         | No      |

Note: According to 648474 D04 Handset SAR v01r03, For Phablet, Since hotspot mode 1-greortedSAR < 1.2 W/kg, ProductSpecific 10-g SAR is not required.

**Variant**

| Test Position                                                                 | Cover Type | Sensor | Distance | Channel Type | Duty Cycle | Channel/Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No |
|-------------------------------------------------------------------------------|------------|--------|----------|--------------|------------|-------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|---------|
|                                                                               |            |        |          |              |            |                         |               |                      | Measured SAR 1g              | Power Drift (dB) | Scaling Factor | Report SAR1g |         |
| Head SAR                                                                      |            |        |          |              |            |                         |               |                      |                              |                  |                |              |         |
| Left Cheek                                                                    | standard   | off    | 0mm      | RMC 12.2K    | 1:1        | 1413/1732.6             | 24.50         | 22.65                | 0.108                        | 0.028            | 1.53           | 0.165        | 28      |
| Left Cheek                                                                    | SIM2       | off    | 0mm      | RMC 12.2K    | 1:1        | 1413/1732.6             | 24.50         | 22.65                | 0.102                        | 0.031            | 1.53           | 0.156        | /       |
| Body-worn SAR                                                                 |            |        |          |              |            |                         |               |                      |                              |                  |                |              |         |
| Back Side                                                                     | standard   | off    | 15mm     | RMC 12.2K    | 1:1        | 1413/1732.6             | 24.50         | 22.65                | 0.179                        | -0.049           | 1.53           | 0.274        | 29      |
| Back Side                                                                     | SIM2       | off    | 15mm     | RMC 12.2K    | 1:1        | 1413/1732.6             | 24.50         | 22.65                | 0.175                        | -0.056           | 1.53           | 0.268        | /       |
| Hotspot SAR                                                                   |            |        |          |              |            |                         |               |                      |                              |                  |                |              |         |
| Bottom Edge                                                                   | standard   | off    | 10mm     | RMC 12.2K    | 1:1        | 1413/1732.6             | 21.50         | 20.54                | 0.345                        | 0.180            | 1.25           | 0.430        | 30      |
| Bottom Edge                                                                   | SIM2       | off    | 10mm     | RMC 12.2K    | 1:1        | 1413/1732.6             | 21.50         | 20.54                | 0.341                        | 0.090            | 1.25           | 0.425        | /       |
| Note: 1.The value with blue color is the maximum SAR Value of each test band. |            |        |          |              |            |                         |               |                      |                              |                  |                |              |         |



**Table 13: UMTS Band V(Main-antenna)**
**Original**

| Test Position | Cover Type | Sensor | Distance | Channel Type | Duty Cycle | Channel/ Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|---------------|------------|--------|----------|--------------|------------|--------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|               |            |        |          |              |            |                          |               |                      | Measured SAR 1g              | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR      |            |        |          |              |            |                          |               |                      |                              |                  |                |              |          |
| Left Cheek    | standard   | off    | 0mm      | RMC 12.2K    | 1:1        | 4183/836.6               | 25.00         | 23.92                | 0.108                        | 0.060            | 1.28           | 0.138        | /        |
| Left Tilt     | standard   | off    | 0mm      | RMC 12.2K    | 1:1        | 4183/836.6               | 25.00         | 23.92                | 0.056                        | 0.190            | 1.28           | 0.072        | /        |
| Right Cheek   | standard   | off    | 0mm      | RMC 12.2K    | 1:1        | 4183/836.6               | 25.00         | 23.92                | 0.147                        | 0.070            | 1.28           | 0.189        | /        |
| Right Tilt    | standard   | off    | 0mm      | RMC 12.2K    | 1:1        | 4183/836.6               | 25.00         | 23.92                | 0.050                        | 0.160            | 1.28           | 0.064        | /        |
| Right Cheek   | Battery2   | off    | 0mm      | RMC 12.2K    | 1:1        | 4183/836.6               | 25.00         | 23.92                | 0.116                        | 0.099            | 1.28           | 0.149        | /        |
| Body-worn SAR |            |        |          |              |            |                          |               |                      |                              |                  |                |              |          |
| Back Side     | standard   | off    | 15mm     | RMC 12.2K    | 1:1        | 4183/836.6               | 25.00         | 23.92                | 0.202                        | 0.040            | 1.28           | 0.259        | /        |
| Front Side    | standard   | off    | 15mm     | RMC 12.2K    | 1:1        | 4183/836.6               | 25.00         | 23.92                | 0.155                        | -0.010           | 1.28           | 0.199        | /        |
| Back Side     | Battery2   | off    | 15mm     | RMC 12.2K    | 1:1        | 4183/836.6               | 25.00         | 23.92                | 0.168                        | 0.028            | 1.28           | 0.215        | /        |
| Hotspot SAR   |            |        |          |              |            |                          |               |                      |                              |                  |                |              |          |
| Back Side     | standard   | off    | 10mm     | RMC 12.2K    | 1:1        | 4183/836.6               | 24.00         | 22.92                | 0.366                        | 0.070            | 1.28           | 0.469        | /        |
| Front Side    | standard   | off    | 10mm     | RMC 12.2K    | 1:1        | 4183/836.6               | 24.00         | 22.92                | 0.276                        | 0.000            | 1.28           | 0.354        | /        |
| Left Edge     | standard   | off    | 10mm     | RMC 12.2K    | 1:1        | 4183/836.6               | 24.00         | 22.92                | 0.284                        | 0.060            | 1.28           | 0.364        | /        |
| Right Edge    | standard   | off    | 10mm     | RMC 12.2K    | 1:1        | 4183/836.6               | 24.00         | 22.92                | 0.155                        | 0.060            | 1.28           | 0.199        | /        |
| Top Edge      | N/A        | N/A    | N/A      | N/A          | N/A        | N/A                      | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Bottom Edge   | standard   | off    | 10mm     | RMC 12.2K    | 1:1        | 4183/836.6               | 24.00         | 22.92                | 0.203                        | 0.030            | 1.28           | 0.260        | /        |
| Back Side     | Battery2   | off    | 10mm     | RMC 12.2K    | 1:1        | 4183/836.6               | 24.00         | 22.92                | 0.302                        | -0.014           | 1.28           | 0.387        | /        |

Note: 1.The value with blue color is the maximum SAR Value of each test band.

2. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is  $\leq \frac{1}{4}$  dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is  $\leq 1.2$  W/kg, SAR measurement is not required for the secondary mode.

| <b>MAX Adjusted SAR</b> |            |                        |                  |               |                     |                |                               |         |
|-------------------------|------------|------------------------|------------------|---------------|---------------------|----------------|-------------------------------|---------|
| Test Position           | Cover Type | Channel/Frequency(MHz) | Full power (dBm) | Tune-up (dBm) | Report SAR1g (mW/g) | Scaling Factor | Full power Report SAR1g(mW/g) | 0mm SAR |
| Back Side               | standard   | 4183/836.6             | 25.00            | 24.00         | 0.469               | 1.26           | 0.590                         | No      |
| Front Side              | standard   | 4183/836.6             | 25.00            | 24.00         | 0.354               | 1.26           | 0.446                         | No      |
| Left Edge               | standard   | 4183/836.6             | 25.00            | 24.00         | 0.364               | 1.26           | 0.458                         | No      |
| Right Edge              | standard   | 4183/836.6             | 25.00            | 24.00         | 0.199               | 1.26           | 0.251                         | No      |
| Top Edge                | N/A        | N/A                    | N/A              | N/A           | N/A                 | N/A            | N/A                           | N/A     |
| Bottom Edge             | standard   | 4183/836.6             | 25.00            | 24.00         | 0.260               | 1.26           | 0.327                         | No      |
| Back Side               | Battery2   | 4183/836.6             | 25.00            | 24.00         | 0.387               | 1.26           | 0.487                         | No      |

Note: According to 648474 D04 Handset SAR v01r03, For Phablet, Since hotspot mode 1-greportedSAR < 1.2 W/kg, ProductSpecific 10-g SAR is not required.

**Variant**

| Test Position                                                                 | Cover Type | Sensor | Distance | Channel Type | Duty Cycle | Channel/ Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|-------------------------------------------------------------------------------|------------|--------|----------|--------------|------------|--------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|                                                                               |            |        |          |              |            |                          |               |                      | Measured SAR 1g              | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR                                                                      |            |        |          |              |            |                          |               |                      |                              |                  |                |              |          |
| Right Cheek                                                                   | standard   | off    | 0mm      | RMC 12.2K    | 1:1        | 4183/836.6               | 25.00         | 23.92                | 0.124                        | -0.028           | 1.28           | 0.159        | 31       |
| Right Cheek                                                                   | SIM2       | off    | 0mm      | RMC 12.2K    | 1:1        | 4183/836.6               | 25.00         | 23.92                | 0.121                        | -0.039           | 1.28           | 0.155        | /        |
| Body-worn SAR                                                                 |            |        |          |              |            |                          |               |                      |                              |                  |                |              |          |
| Back Side                                                                     | standard   | off    | 15mm     | RMC 12.2K    | 1:1        | 4183/836.6               | 25.00         | 23.92                | 0.200                        | 0.050            | 1.28           | 0.256        | 32       |
| Back Side                                                                     | SIM2       | off    | 15mm     | RMC 12.2K    | 1:1        | 4183/836.6               | 25.00         | 23.92                | 0.196                        | 0.046            | 1.28           | 0.251        | /        |
| Hotspot SAR                                                                   |            |        |          |              |            |                          |               |                      |                              |                  |                |              |          |
| Back Side                                                                     | standard   | off    | 10mm     | RMC 12.2K    | 1:1        | 4183/836.6               | 24.00         | 22.92                | 0.239                        | 0.020            | 1.28           | 0.306        | 33       |
| Back Side                                                                     | SIM2       | off    | 10mm     | RMC 12.2K    | 1:1        | 4183/836.6               | 24.00         | 22.92                | 0.237                        | 0.028            | 1.28           | 0.304        | /        |
| Note: 1.The value with blue color is the maximum SAR Value of each test band. |            |        |          |              |            |                          |               |                      |                              |                  |                |              |          |

**Table 14: LTE Band 2 (20MHz, Main-antenna)**
**Original**

| Test Position                                                                                                                                | Cover Type | Sensor | Distance | Duty Cycle | RB allocation | RB offset | Channel/ Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|----------------------------------------------------------------------------------------------------------------------------------------------|------------|--------|----------|------------|---------------|-----------|--------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|                                                                                                                                              |            |        |          |            |               |           |                          |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR (QPSK)                                                                                                                              |            |        |          |            |               |           |                          |               |                      |                              |                  |                |              |          |
| Left Cheek                                                                                                                                   | standard   | off    | 0mm      | 1:1        | 1             | 0         | 18900/1880               | 24.00         | 23.18                | 0.123                        | 0.170            | 1.21           | 0.149        | /        |
| Left Tilt                                                                                                                                    | standard   | off    | 0mm      | 1:1        | 1             | 0         | 18900/1880               | 24.00         | 23.18                | 0.076                        | 0.110            | 1.21           | 0.092        | /        |
| Right Cheek                                                                                                                                  | standard   | off    | 0mm      | 1:1        | 1             | 0         | 18900/1880               | 24.00         | 23.18                | 0.139                        | 0.069            | 1.21           | 0.168        | /        |
| Right Tilt                                                                                                                                   | standard   | off    | 0mm      | 1:1        | 1             | 0         | 18900/1880               | 24.00         | 23.18                | 0.082                        | -0.120           | 1.21           | 0.099        | /        |
| Left Cheek                                                                                                                                   | standard   | off    | 0mm      | 1:1        | 50%           | 0         | 18900/1880               | 23.00         | 22.01                | 0.095                        | 0.130            | 1.26           | 0.119        | /        |
| Left Tilt                                                                                                                                    | standard   | off    | 0mm      | 1:1        | 50%           | 0         | 18900/1880               | 23.00         | 22.01                | 0.061                        | 0.023            | 1.26           | 0.077        | /        |
| Right Cheek                                                                                                                                  | standard   | off    | 0mm      | 1:1        | 50%           | 0         | 18900/1880               | 23.00         | 22.01                | 0.117                        | 0.055            | 1.26           | 0.147        | /        |
| Right Tilt                                                                                                                                   | standard   | off    | 0mm      | 1:1        | 50%           | 0         | 18900/1880               | 23.00         | 22.01                | 0.061                        | 0.110            | 1.26           | 0.077        | /        |
| Right Cheek                                                                                                                                  | Battery2   | off    | 0mm      | 1:1        | 1             | 0         | 18900/1880               | 24.00         | 23.18                | 0.133                        | 0.100            | 1.21           | 0.161        | /        |
| Body-worn SAR (QPSK)                                                                                                                         |            |        |          |            |               |           |                          |               |                      |                              |                  |                |              |          |
| Back Side                                                                                                                                    | standard   | off    | 15mm     | 1:1        | 1             | 0         | 18900/1880               | 24.00         | 23.18                | 0.319                        | 0.040            | 1.21           | 0.385        | /        |
| Front Side                                                                                                                                   | standard   | off    | 15mm     | 1:1        | 1             | 0         | 18900/1880               | 24.00         | 23.18                | 0.244                        | -0.020           | 1.21           | 0.295        | /        |
| Back Side                                                                                                                                    | standard   | off    | 15mm     | 1:1        | 50%           | 0         | 18900/1880               | 23.00         | 22.01                | 0.250                        | 0.120            | 1.26           | 0.314        | /        |
| Front Side                                                                                                                                   | standard   | off    | 15mm     | 1:1        | 50%           | 0         | 18900/1880               | 23.00         | 22.01                | 0.191                        | 0.150            | 1.26           | 0.240        | /        |
| Back Side                                                                                                                                    | Battery2   | off    | 15mm     | 1:1        | 1             | 0         | 18900/1880               | 24.00         | 23.18                | 0.286                        | 0.016            | 1.21           | 0.345        | /        |
| Hotspot SAR(QPSK)                                                                                                                            |            |        |          |            |               |           |                          |               |                      |                              |                  |                |              |          |
| Back Side                                                                                                                                    | standard   | off    | 10mm     | 1:1        | 1             | 0         | 18900/1880               | 21.50         | 20.63                | 0.310                        | -0.100           | 1.22           | 0.379        | /        |
| Front Side                                                                                                                                   | standard   | off    | 10mm     | 1:1        | 1             | 0         | 18900/1880               | 21.50         | 20.63                | 0.199                        | 0.030            | 1.22           | 0.243        | /        |
| Left Edge                                                                                                                                    | standard   | off    | 10mm     | 1:1        | 1             | 0         | 18900/1880               | 21.50         | 20.63                | 0.080                        | 0.038            | 1.22           | 0.097        | /        |
| Right Edge                                                                                                                                   | standard   | off    | 10mm     | 1:1        | 1             | 0         | 18900/1880               | 21.50         | 20.63                | 0.113                        | -0.120           | 1.22           | 0.138        | /        |
| Top Edge                                                                                                                                     | N/A        | N/A    | N/A      | N/A        | N/A           | N/A       | N/A                      | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Bottom Edge                                                                                                                                  | standard   | off    | 10mm     | 1:1        | 1             | 0         | 18900/1880               | 21.50         | 20.63                | 0.415                        | 0.080            | 1.22           | 0.507        | /        |
| Back Side                                                                                                                                    | standard   | off    | 10mm     | 1:1        | 50%           | 50        | 18900/1880               | 21.50         | 20.60                | 0.316                        | 0.010            | 1.23           | 0.389        | /        |
| Front Side                                                                                                                                   | standard   | off    | 10mm     | 1:1        | 50%           | 50        | 18900/1880               | 21.50         | 20.60                | 0.295                        | 0.057            | 1.23           | 0.363        | /        |
| Left Edge                                                                                                                                    | standard   | off    | 10mm     | 1:1        | 50%           | 50        | 18900/1880               | 21.50         | 20.60                | 0.072                        | 0.030            | 1.23           | 0.088        | /        |
| Right Edge                                                                                                                                   | standard   | off    | 10mm     | 1:1        | 50%           | 50        | 18900/1880               | 21.50         | 20.60                | 0.101                        | 0.040            | 1.23           | 0.124        | /        |
| Top Edge                                                                                                                                     | N/A        | N/A    | N/A      | N/A        | N/A           | N/A       | N/A                      | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Bottom Edge                                                                                                                                  | standard   | off    | 10mm     | 1:1        | 50%           | 50        | 18900/1880               | 21.50         | 20.60                | 0.409                        | 0.030            | 1.23           | 0.503        | /        |
| Bottom Edge                                                                                                                                  | Battery2   | off    | 10mm     | 1:1        | 1             | 0         | 18900/1880               | 21.50         | 20.63                | 0.392                        | 0.015            | 1.22           | 0.479        | /        |
| Note: 1.The value with blue color is the maximum SAR Value of each test band.                                                                |            |        |          |            |               |           |                          |               |                      |                              |                  |                |              |          |
| 2.For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are≥ 50% limit(10g). |            |        |          |            |               |           |                          |               |                      |                              |                  |                |              |          |

| MAX Adjusted SAR |            |        |          |            |               |           |                         |                  |               |                     |                |                                |         |
|------------------|------------|--------|----------|------------|---------------|-----------|-------------------------|------------------|---------------|---------------------|----------------|--------------------------------|---------|
| Test Position    | Cover Type | Sensor | Distance | Duty Cycle | RB allocation | RB offset | Channel/Frequency (MHz) | Full power (dBm) | Tune-up (dBm) | Report SAR1g (mW/g) | Scaling Factor | Full power Report SAR1g (mW/g) | 0mm SAR |
| Back Side        | standard   | off    | 10mm     | 1:1        | 1             | 0         | 18900/1880              | 24.00            | 21.50         | 0.379               | 1.78           | 0.674                          | No      |
| Front Side       | standard   | off    | 10mm     | 1:1        | 1             | 0         | 18900/1880              | 24.00            | 21.50         | 0.243               | 1.78           | 0.432                          | No      |
| Left Edge        | standard   | off    | 10mm     | 1:1        | 1             | 0         | 18900/1880              | 24.00            | 21.50         | 0.097               | 1.78           | 0.172                          | No      |
| Right Edge       | standard   | off    | 10mm     | 1:1        | 1             | 0         | 18900/1880              | 24.00            | 21.50         | 0.138               | 1.78           | 0.245                          | No      |
| Top Edge         | N/A        | N/A    | N/A      | N/A        | N/A           | N/A       | N/A                     | N/A              | N/A           | N/A                 | N/A            | N/A                            | N/A     |
| Bottom Edge      | standard   | off    | 10mm     | 1:1        | 1             | 0         | 18900/1880              | 24.00            | 21.50         | 0.507               | 1.78           | 0.902                          | No      |
| Back Side        | standard   | off    | 10mm     | 1:1        | 50%           | 50        | 18900/1880              | 24.00            | 21.50         | 0.389               | 1.78           | 0.692                          | No      |
| Front Side       | standard   | off    | 10mm     | 1:1        | 50%           | 50        | 18900/1880              | 24.00            | 21.50         | 0.363               | 1.78           | 0.646                          | No      |
| Left Edge        | standard   | off    | 10mm     | 1:1        | 50%           | 50        | 18900/1880              | 24.00            | 21.50         | 0.088               | 1.78           | 0.156                          | No      |
| Right Edge       | standard   | off    | 10mm     | 1:1        | 50%           | 50        | 18900/1880              | 24.00            | 21.50         | 0.124               | 1.78           | 0.221                          | No      |
| Top Edge         | N/A        | N/A    | N/A      | N/A        | N/A           | N/A       | N/A                     | N/A              | N/A           | N/A                 | N/A            | N/A                            | N/A     |
| Bottom Edge      | standard   | off    | 10mm     | 1:1        | 50%           | 50        | 18900/1880              | 24.00            | 21.50         | 0.503               | 1.78           | 0.894                          | No      |
| Bottom Edge      | Battery2   | off    | 10mm     | 1:1        | 1             | 0         | 18900/1880              | 24.00            | 21.50         | 0.479               | 1.78           | 0.852                          | No      |

Note: According to 648474 D04 Handset SAR v01r03, For Phablet, Since hotspot mode 1-greportedSAR < 1.2 W/kg, Product Specific 10-g SAR is not required.

### Variant

| Test Position                                                                  | Cover Type | Sensor | Distance | Duty Cycle | RB allocation | RB offset | Channel/ Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No |
|--------------------------------------------------------------------------------|------------|--------|----------|------------|---------------|-----------|--------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|---------|
|                                                                                |            |        |          |            |               |           |                          |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |         |
| Head SAR (QPSK)                                                                |            |        |          |            |               |           |                          |               |                      |                              |                  |                |              |         |
| Right Cheek                                                                    | standard   | off    | 0mm      | 1:1        | 1             | 0         | 18900/1880               | 24.00         | 23.18                | 0.146                        | -0.051           | 1.21           | 0.176        | 34      |
| Right Cheek                                                                    | SIM2       | off    | 0mm      | 1:1        | 1             | 0         | 18900/1880               | 24.00         | 23.18                | 0.135                        | -0.150           | 1.21           | 0.163        | /       |
| Body-worn SAR (QPSK)                                                           |            |        |          |            |               |           |                          |               |                      |                              |                  |                |              |         |
| Back Side                                                                      | standard   | off    | 15mm     | 1:1        | 1             | 0         | 18900/1880               | 24.00         | 23.18                | 0.263                        | -0.100           | 1.21           | 0.318        | 35      |
| Back Side                                                                      | SIM2       | off    | 15mm     | 1:1        | 1             | 0         | 18900/1880               | 24.00         | 23.18                | 0.248                        | 0.060            | 1.21           | 0.300        | /       |
| Hotspot SAR(QPSK)                                                              |            |        |          |            |               |           |                          |               |                      |                              |                  |                |              |         |
| Bottom Edge                                                                    | standard   | off    | 10mm     | 1:1        | 1             | 0         | 18900/1880               | 21.50         | 20.63                | 0.383                        | 0.100            | 1.22           | 0.468        | 36      |
| Bottom Edge                                                                    | SIM2       | off    | 10mm     | 1:1        | 1             | 0         | 18900/1880               | 21.50         | 20.63                | 0.378                        | -0.050           | 1.22           | 0.462        | /       |
| Note: 1. The value with blue color is the maximum SAR Value of each test band. |            |        |          |            |               |           |                          |               |                      |                              |                  |                |              |         |

**Table 15: LTE Band 4 (20MHz, Main-antenna)**
**Original**

| Test Position                                                                                                                                | Cover Type | Sensor | Distance | Duty Cycle | RB allocation | RB offset | Channel/ Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|----------------------------------------------------------------------------------------------------------------------------------------------|------------|--------|----------|------------|---------------|-----------|--------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|                                                                                                                                              |            |        |          |            |               |           |                          |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR (QPSK)                                                                                                                              |            |        |          |            |               |           |                          |               |                      |                              |                  |                |              |          |
| Left Cheek                                                                                                                                   | standard   | off    | 0mm      | 1:1        | 1             | 0         | 20050/1720               | 23.50         | 22.63                | 0.119                        | 0.046            | 1.22           | 0.145        | /        |
| Left Tilt                                                                                                                                    | standard   | off    | 0mm      | 1:1        | 1             | 0         | 20050/1720               | 23.50         | 22.63                | 0.051                        | 0.150            | 1.22           | 0.063        | /        |
| Right Cheek                                                                                                                                  | standard   | off    | 0mm      | 1:1        | 1             | 0         | 20050/1720               | 23.50         | 22.63                | 0.069                        | 0.020            | 1.22           | 0.084        | /        |
| Right Tilt                                                                                                                                   | standard   | off    | 0mm      | 1:1        | 1             | 0         | 20050/1720               | 23.50         | 22.63                | 0.054                        | 0.025            | 1.22           | 0.066        | /        |
| Left Cheek                                                                                                                                   | standard   | off    | 0mm      | 1:1        | 50%           | 0         | 20175/1732.5             | 22.50         | 21.81                | 0.084                        | 0.063            | 1.17           | 0.098        | /        |
| Left Tilt                                                                                                                                    | standard   | off    | 0mm      | 1:1        | 50%           | 0         | 20175/1732.5             | 22.50         | 21.81                | 0.035                        | 0.170            | 1.17           | 0.041        | /        |
| Right Cheek                                                                                                                                  | standard   | off    | 0mm      | 1:1        | 50%           | 0         | 20175/1732.5             | 22.50         | 21.81                | 0.066                        | 0.045            | 1.17           | 0.077        | /        |
| Right Tilt                                                                                                                                   | standard   | off    | 0mm      | 1:1        | 50%           | 0         | 20175/1732.5             | 22.50         | 21.81                | 0.042                        | -0.010           | 1.17           | 0.049        | /        |
| Left Cheek                                                                                                                                   | Battery2   | off    | 0mm      | 1:1        | 1             | 0         | 20050/1720               | 23.50         | 22.63                | 0.102                        | 0.014            | 1.22           | 0.125        | /        |
| Body-worn SAR (QPSK)                                                                                                                         |            |        |          |            |               |           |                          |               |                      |                              |                  |                |              |          |
| Back Side                                                                                                                                    | standard   | off    | 15mm     | 1:1        | 1             | 0         | 20050/1720               | 23.50         | 22.63                | 0.231                        | 0.000            | 1.22           | 0.282        | /        |
| Front Side                                                                                                                                   | standard   | off    | 15mm     | 1:1        | 1             | 0         | 20050/1720               | 23.50         | 22.63                | 0.206                        | 0.020            | 1.22           | 0.252        | /        |
| Back Side                                                                                                                                    | standard   | off    | 15mm     | 1:1        | 50%           | 0         | 20175/1732.5             | 22.50         | 21.81                | 0.181                        | 0.020            | 1.17           | 0.212        | /        |
| Front Side                                                                                                                                   | standard   | off    | 15mm     | 1:1        | 50%           | 0         | 20175/1732.5             | 22.50         | 21.81                | 0.154                        | 0.010            | 1.17           | 0.181        | /        |
| Back Side                                                                                                                                    | Battery2   | off    | 15mm     | 1:1        | 1             | 0         | 20050/1720               | 23.50         | 22.63                | 0.210                        | 0.030            | 1.22           | 0.257        | /        |
| Hotspot SAR(QPSK)                                                                                                                            |            |        |          |            |               |           |                          |               |                      |                              |                  |                |              |          |
| Back Side                                                                                                                                    | standard   | off    | 10mm     | 1:1        | 1             | 0         | 20175/1732.5             | 21.00         | 20.00                | 0.170                        | 0.180            | 1.26           | 0.214        | /        |
| Front Side                                                                                                                                   | standard   | off    | 10mm     | 1:1        | 1             | 0         | 20175/1732.5             | 21.00         | 20.00                | 0.208                        | 0.160            | 1.26           | 0.262        | /        |
| Left Edge                                                                                                                                    | standard   | off    | 10mm     | 1:1        | 1             | 0         | 20175/1732.5             | 21.00         | 20.00                | 0.071                        | 0.120            | 1.26           | 0.089        | /        |
| Right Edge                                                                                                                                   | standard   | off    | 10mm     | 1:1        | 1             | 0         | 20175/1732.5             | 21.00         | 20.00                | 0.098                        | 0.170            | 1.26           | 0.123        | /        |
| Top Edge                                                                                                                                     | N/A        | N/A    | N/A      | N/A        | N/A           | N/A       | N/A                      | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Bottom Edge                                                                                                                                  | standard   | off    | 10mm     | 1:1        | 1             | 0         | 20175/1732.5             | 21.00         | 20.00                | 0.382                        | -0.080           | 1.26           | 0.481        | /        |
| Back Side                                                                                                                                    | standard   | off    | 10mm     | 1:1        | 50%           | 0         | 20175/1732.5             | 21.00         | 19.95                | 0.162                        | 0.050            | 1.27           | 0.206        | /        |
| Front Side                                                                                                                                   | standard   | off    | 10mm     | 1:1        | 50%           | 0         | 20175/1732.5             | 21.00         | 19.95                | 0.194                        | 0.070            | 1.27           | 0.247        | /        |
| Left Edge                                                                                                                                    | standard   | off    | 10mm     | 1:1        | 50%           | 0         | 20175/1732.5             | 21.00         | 19.95                | 0.064                        | 0.090            | 1.27           | 0.082        | /        |
| Right Edge                                                                                                                                   | standard   | off    | 10mm     | 1:1        | 50%           | 0         | 20175/1732.5             | 21.00         | 19.95                | 0.076                        | 0.080            | 1.27           | 0.097        | /        |
| Top Edge                                                                                                                                     | N/A        | N/A    | N/A      | N/A        | N/A           | N/A       | N/A                      | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Bottom Edge                                                                                                                                  | standard   | off    | 10mm     | 1:1        | 50%           | 0         | 20175/1732.5             | 21.00         | 19.95                | 0.370                        | -0.060           | 1.27           | 0.471        | /        |
| Bottom Edge                                                                                                                                  | Battery2   | off    | 10mm     | 1:1        | 1             | 0         | 20175/1732.5             | 21.00         | 19.95                | 0.345                        | 0.014            | 1.27           | 0.439        | /        |
| Note: 1.The value with blue color is the maximum SAR Value of each test band.                                                                |            |        |          |            |               |           |                          |               |                      |                              |                  |                |              |          |
| 2.For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are≥ 50% limit(10g). |            |        |          |            |               |           |                          |               |                      |                              |                  |                |              |          |

| MAX Adjusted SAR |            |        |          |            |               |           |                         |                  |             |                     |                |                                |         |
|------------------|------------|--------|----------|------------|---------------|-----------|-------------------------|------------------|-------------|---------------------|----------------|--------------------------------|---------|
| Test Position    | Cover Type | Sensor | Distance | Duty Cycle | RB allocation | RB offset | Channel/Frequency (MHz) | Full power (dBm) | Tune-up dBm | Report SAR1g (mW/g) | Scaling Factor | Full power Report SAR1g (mW/g) | 0mm SAR |
| Back Side        | standard   | off    | 10mm     | 1:1        | 1             | 0         | 20175/1732.5            | 23.50            | 21.00       | 0.214               | 1.78           | 0.381                          | No      |
| Front Side       | standard   | off    | 10mm     | 1:1        | 1             | 0         | 20175/1732.5            | 23.50            | 21.00       | 0.262               | 1.78           | 0.466                          | No      |
| Left Edge        | standard   | off    | 10mm     | 1:1        | 1             | 0         | 20175/1732.5            | 23.50            | 21.00       | 0.089               | 1.78           | 0.158                          | No      |
| Right Edge       | standard   | off    | 10mm     | 1:1        | 1             | 0         | 20175/1732.5            | 23.50            | 21.00       | 0.123               | 1.78           | 0.219                          | No      |
| Top Edge         | N/A        | N/A    | N/A      | N/A        | N/A           | N/A       | N/A                     | N/A              | N/A         | N/A                 | N/A            | N/A                            | N/A     |
| Bottom Edge      | standard   | off    | 10mm     | 1:1        | 1             | 0         | 20175/1732.5            | 23.50            | 21.00       | 0.481               | 1.78           | 0.855                          | No      |
| Back Side        | standard   | off    | 10mm     | 1:1        | 50%           | 0         | 20175/1732.5            | 23.50            | 21.00       | 0.206               | 1.78           | 0.366                          | No      |
| Front Side       | standard   | off    | 10mm     | 1:1        | 50%           | 0         | 20175/1732.5            | 23.50            | 21.00       | 0.247               | 1.78           | 0.439                          | No      |
| Left Edge        | standard   | off    | 10mm     | 1:1        | 50%           | 0         | 20175/1732.5            | 23.50            | 21.00       | 0.082               | 1.78           | 0.146                          | No      |
| Right Edge       | standard   | off    | 10mm     | 1:1        | 50%           | 0         | 20175/1732.5            | 23.50            | 21.00       | 0.097               | 1.78           | 0.172                          | No      |
| Top Edge         | N/A        | N/A    | N/A      | N/A        | N/A           | N/A       | N/A                     | N/A              | N/A         | N/A                 | N/A            | N/A                            | N/A     |
| Bottom Edge      | standard   | off    | 10mm     | 1:1        | 50%           | 0         | 20175/1732.5            | 23.50            | 21.00       | 0.471               | 1.78           | 0.838                          | No      |
| Bottom Edge      | Battery2   | off    | 10mm     | 1:1        | 1             | 0         | 20175/1732.5            | 23.50            | 21.00       | 0.439               | 1.78           | 0.781                          | No      |

Note: According to 648474 D04 Handset SAR v01r03, For Phablet, Since hotspot mode 1-greportedSAR < 1.2 W/kg, Product Specific 10-g SAR is not required.

### Variant

| Test Position                                                                 | Cover Type | Sensor | Distance | Duty Cycle | RB allocation | RB offset | Channel/ Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No |
|-------------------------------------------------------------------------------|------------|--------|----------|------------|---------------|-----------|--------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|---------|
|                                                                               |            |        |          |            |               |           |                          |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |         |
| Head SAR (QPSK)                                                               |            |        |          |            |               |           |                          |               |                      |                              |                  |                |              |         |
| Left Cheek                                                                    | standard   | off    | 0mm      | 1:1        | 1             | 0         | 20050/1720               | 23.50         | 22.63                | 0.107                        | 0.020            | 1.22           | 0.131        | 37      |
| Left Cheek                                                                    | SIM2       | off    | 0mm      | 1:1        | 1             | 0         | 20050/1720               | 23.50         | 22.63                | 0.092                        | -0.070           | 1.22           | 0.112        | /       |
| Body-worn SAR (QPSK)                                                          |            |        |          |            |               |           |                          |               |                      |                              |                  |                |              |         |
| Back Side                                                                     | standard   | off    | 15mm     | 1:1        | 1             | 0         | 20050/1720               | 23.50         | 22.63                | 0.181                        | -0.190           | 1.22           | 0.221        | 38      |
| Back Side                                                                     | SIM2       | off    | 15mm     | 1:1        | 1             | 0         | 20050/1720               | 23.50         | 22.63                | 0.168                        | 0.090            | 1.22           | 0.205        | /       |
| Hotspot SAR(QPSK)                                                             |            |        |          |            |               |           |                          |               |                      |                              |                  |                |              |         |
| Bottom Edge                                                                   | standard   | off    | 10mm     | 1:1        | 1             | 0         | 20175/1732.5             | 21.00         | 20.00                | 0.408                        | 0.060            | 1.26           | 0.514        | 39      |
| Bottom Edge                                                                   | SIM2       | off    | 10mm     | 1:1        | 1             | 0         | 20175/1732.5             | 21.00         | 20.00                | 0.381                        | 0.010            | 1.26           | 0.480        | /       |
| Note: 1.The value with blue color is the maximum SAR Value of each test band. |            |        |          |            |               |           |                          |               |                      |                              |                  |                |              |         |

**Table 16: LTE Band 5 (10MHz, Main-antenna)**
**Original**

| Test Position        | Cover Type | Sensor | Distance | Duty Cycle | RB allocation | RB offset | Channel/<br>Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|----------------------|------------|--------|----------|------------|---------------|-----------|-----------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|                      |            |        |          |            |               |           |                             |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR (QPSK)      |            |        |          |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Left Cheek           | standard   | off    | 0mm      | 1:1        | 1             | 25        | 20525/836.5                 | 25.00         | 24.17                | 0.108                        | 0.138            | 1.21           | 0.131        | /        |
| Left Tilt            | standard   | off    | 0mm      | 1:1        | 1             | 25        | 20525/836.5                 | 25.00         | 24.17                | 0.057                        | 0.029            | 1.21           | 0.069        | /        |
| Right Cheek          | standard   | off    | 0mm      | 1:1        | 1             | 25        | 20525/836.5                 | 25.00         | 24.17                | 0.147                        | 0.035            | 1.21           | 0.178        | /        |
| Right Tilt           | standard   | off    | 0mm      | 1:1        | 1             | 25        | 20525/836.5                 | 25.00         | 24.17                | 0.071                        | 0.170            | 1.21           | 0.085        | /        |
| Left Cheek           | standard   | off    | 0mm      | 1:1        | 50%           | 0         | 20600/844                   | 24.00         | 22.98                | 0.088                        | 0.112            | 1.26           | 0.111        | /        |
| Left Tilt            | standard   | off    | 0mm      | 1:1        | 50%           | 0         | 20600/844                   | 24.00         | 22.98                | 0.049                        | 0.053            | 1.26           | 0.062        | /        |
| Right Cheek          | standard   | off    | 0mm      | 1:1        | 50%           | 0         | 20600/844                   | 24.00         | 22.98                | 0.120                        | -0.040           | 1.26           | 0.152        | /        |
| Right Tilt           | standard   | off    | 0mm      | 1:1        | 50%           | 0         | 20600/844                   | 24.00         | 22.98                | 0.048                        | 0.059            | 1.26           | 0.061        | /        |
| Right Cheek          | Battery2   | off    | 0mm      | 1:1        | 1             | 25        | 20525/836.5                 | 25.00         | 24.17                | 0.140                        | 0.068            | 1.21           | 0.169        | /        |
| Body-worn SAR (QPSK) |            |        |          |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Back Side            | standard   | off    | 15mm     | 1:1        | 1             | 25        | 20525/836.5                 | 25.00         | 24.17                | 0.199                        | 0.000            | 1.21           | 0.241        | /        |
| Front Side           | standard   | off    | 15mm     | 1:1        | 1             | 25        | 20525/836.5                 | 25.00         | 24.17                | 0.169                        | -0.020           | 1.21           | 0.205        | /        |
| Back Side            | standard   | off    | 15mm     | 1:1        | 50%           | 0         | 20600/844                   | 24.00         | 22.98                | 0.158                        | 0.070            | 1.26           | 0.200        | /        |
| Front Side           | standard   | off    | 15mm     | 1:1        | 50%           | 0         | 20600/844                   | 24.00         | 22.98                | 0.132                        | 0.080            | 1.26           | 0.167        | /        |
| Back Side            | Battery2   | off    | 15mm     | 1:1        | 1             | 25        | 20525/836.5                 | 25.00         | 24.17                | 0.173                        | 0.040            | 1.21           | 0.209        | /        |
| Hotspot SAR(QPSK)    |            |        |          |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Back Side            | standard   | off    | 10mm     | 1:1        | 1             | 0         | 20525/836.5                 | 24.00         | 22.72                | 0.303                        | 0.030            | 1.34           | 0.407        | /        |
| Front Side           | standard   | off    | 10mm     | 1:1        | 1             | 0         | 20525/836.5                 | 24.00         | 22.72                | 0.230                        | 0.000            | 1.34           | 0.309        | /        |
| Left Edge            | standard   | off    | 10mm     | 1:1        | 1             | 0         | 20525/836.5                 | 24.00         | 22.72                | 0.112                        | 0.090            | 1.34           | 0.150        | /        |
| Right Edge           | standard   | off    | 10mm     | 1:1        | 1             | 0         | 20525/836.5                 | 24.00         | 22.72                | 0.109                        | 0.110            | 1.34           | 0.146        | /        |
| Top Edge             | N/A        | N/A    | N/A      | N/A        | N/A           | N/A       | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Bottom Edge          | standard   | off    | 10mm     | 1:1        | 1             | 0         | 20525/836.5                 | 24.00         | 22.72                | 0.195                        | -0.028           | 1.34           | 0.262        | /        |
| Back Side            | standard   | off    | 10mm     | 1:1        | 50%           | 0         | 20450/829                   | 24.00         | 22.68                | 0.305                        | 0.070            | 1.36           | 0.413        | /        |
| Front Side           | standard   | off    | 10mm     | 1:1        | 50%           | 0         | 20450/829                   | 24.00         | 22.68                | 0.249                        | 0.052            | 1.36           | 0.337        | /        |
| Left Edge            | standard   | off    | 10mm     | 1:1        | 50%           | 0         | 20450/829                   | 24.00         | 22.68                | 0.109                        | 0.190            | 1.36           | 0.148        | /        |
| Right Edge           | standard   | off    | 10mm     | 1:1        | 50%           | 0         | 20450/829                   | 24.00         | 22.68                | 0.098                        | 0.041            | 1.36           | 0.133        | /        |
| Top Edge             | N/A        | N/A    | N/A      | N/A        | N/A           | N/A       | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Bottom Edge          | standard   | off    | 10mm     | 1:1        | 50%           | 0         | 20450/829                   | 24.00         | 22.68                | 0.193                        | 0.000            | 1.36           | 0.262        | /        |
| Back Side            | Battery2   | off    | 10mm     | 1:1        | 50%           | 0         | 20450/829                   | 24.00         | 22.68                | 0.270                        | 0.035            | 1.36           | 0.366        | /        |

Note: 1. The value with blue color is the maximum SAR Value of each test band.

2. For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are  $\geq 50\%$  limit(10g).



| MAX Adjusted SAR |            |        |          |            |               |           |                         |                  |               |                     |                |                                |         |
|------------------|------------|--------|----------|------------|---------------|-----------|-------------------------|------------------|---------------|---------------------|----------------|--------------------------------|---------|
| Test Position    | Cover Type | Sensor | Distance | Duty Cycle | RB allocation | RB offset | Channel/Frequency (MHz) | Full power (dBm) | Tune-up (dBm) | Report SAR1g (mW/g) | Scaling Factor | Full power Report SAR1g (mW/g) | 0mm SAR |
| Back Side        | standard   | off    | 10mm     | 1:1        | 1             | 0         | 20525/836.5             | 25.00            | 24.00         | 0.407               | 1.26           | 0.512                          | No      |
| Front Side       | standard   | off    | 10mm     | 1:1        | 1             | 0         | 20525/836.5             | 25.00            | 24.00         | 0.309               | 1.26           | 0.389                          | No      |
| Left Edge        | standard   | off    | 10mm     | 1:1        | 1             | 0         | 20525/836.5             | 25.00            | 24.00         | 0.150               | 1.26           | 0.189                          | No      |
| Right Edge       | standard   | off    | 10mm     | 1:1        | 1             | 0         | 20525/836.5             | 25.00            | 24.00         | 0.146               | 1.26           | 0.184                          | No      |
| Top Edge         | N/A        | N/A    | N/A      | N/A        | N/A           | N/A       | N/A                     | 25.00            | N/A           | N/A                 | N/A            | N/A                            | N/A     |
| Bottom Edge      | standard   | off    | 10mm     | 1:1        | 1             | 0         | 20525/836.5             | 25.00            | 24.00         | 0.262               | 1.26           | 0.330                          | No      |
| Back Side        | standard   | off    | 10mm     | 1:1        | 50%           | 0         | 20450/829               | 25.00            | 24.00         | 0.413               | 1.26           | 0.520                          | No      |
| Front Side       | standard   | off    | 10mm     | 1:1        | 50%           | 0         | 20450/829               | 25.00            | 24.00         | 0.337               | 1.26           | 0.424                          | No      |
| Left Edge        | standard   | off    | 10mm     | 1:1        | 50%           | 0         | 20450/829               | 25.00            | 24.00         | 0.148               | 1.26           | 0.186                          | No      |
| Right Edge       | standard   | off    | 10mm     | 1:1        | 50%           | 0         | 20450/829               | 25.00            | 24.00         | 0.133               | 1.26           | 0.167                          | No      |
| Top Edge         | N/A        | N/A    | N/A      | N/A        | N/A           | N/A       | N/A                     | 25.00            | N/A           | N/A                 | N/A            | N/A                            | N/A     |
| Bottom Edge      | standard   | off    | 10mm     | 1:1        | 50%           | 0         | 20450/829               | 25.00            | 24.00         | 0.262               | 1.26           | 0.330                          | No      |
| Back Side        | Battery2   | off    | 10mm     | 1:1        | 1             | 0         | 20450/829               | 25.00            | 24.00         | 0.366               | 1.26           | 0.461                          | No      |

Note: According to 648474 D04 Handset SAR v01r03, For Phablet, Since hotspot mode 1-greportedSAR < 1.2 W/kg, Product Specific 10-g SAR is not required.

### Variant

| Test Position                                                                  | Cover Type | Sensor | Distance | Duty Cycle | RB allocation | RB offset | Channel/ Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No |
|--------------------------------------------------------------------------------|------------|--------|----------|------------|---------------|-----------|--------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|---------|
|                                                                                |            |        |          |            |               |           |                          |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |         |
| Head SAR (QPSK)                                                                |            |        |          |            |               |           |                          |               |                      |                              |                  |                |              |         |
| Right Cheek                                                                    | standard   | off    | 0mm      | 1:1        | 1             | 25        | 20525/836.5              | 25.00         | 24.17                | 0.141                        | 0.039            | 1.21           | 0.171        | 40      |
| Right Cheek                                                                    | SIM2       | off    | 0mm      | 1:1        | 1             | 25        | 20525/836.5              | 25.00         | 24.17                | 0.129                        | 0.012            | 1.21           | 0.156        | /       |
| Body-worn SAR (QPSK)                                                           |            |        |          |            |               |           |                          |               |                      |                              |                  |                |              |         |
| Back Side                                                                      | standard   | off    | 15mm     | 1:1        | 1             | 25        | 20525/836.5              | 25.00         | 24.17                | 0.217                        | -0.090           | 1.21           | 0.263        | 41      |
| Back Side                                                                      | SIM2       | off    | 15mm     | 1:1        | 1             | 25        | 20525/836.5              | 25.00         | 24.17                | 0.200                        | 0.000            | 1.21           | 0.242        | /       |
| Hotspot SAR(QPSK)                                                              |            |        |          |            |               |           |                          |               |                      |                              |                  |                |              |         |
| Back Side                                                                      | standard   | off    | 10mm     | 1:1        | 50%           | 0         | 20450/829                | 24.00         | 22.68                | 0.257                        | 0.070            | 1.36           | 0.348        | 42      |
| Back Side                                                                      | SIM2       | off    | 10mm     | 1:1        | 50%           | 0         | 20450/829                | 24.00         | 22.68                | 0.249                        | -0.080           | 1.36           | 0.337        | /       |
| Note: 1. The value with blue color is the maximum SAR Value of each test band. |            |        |          |            |               |           |                          |               |                      |                              |                  |                |              |         |



**Table 17: LTE Band 7 (20MHz, Main-antenna)**
**Variant**

| Test Position        | Cover Type | Sensor | Distance | Duty Cycle | RB allocation | RB offset | Channel/Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|----------------------|------------|--------|----------|------------|---------------|-----------|-------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|                      |            |        |          |            |               |           |                         |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR (QPSK)      |            |        |          |            |               |           |                         |               |                      |                              |                  |                |              |          |
| Left Cheek           | standard   | off    | 0mm      | 1:1        | 1             | 99        | 21100/2535              | 24.00         | 23.21                | 0.125                        | 0.079            | 1.20           | 0.150        | /        |
| Left Tilt            | standard   | off    | 0mm      | 1:1        | 1             | 99        | 21100/2535              | 24.00         | 23.21                | 0.090                        | 0.112            | 1.20           | 0.108        | /        |
| Right Cheek          | standard   | off    | 0mm      | 1:1        | 1             | 99        | 21100/2535              | 24.00         | 23.21                | 0.194                        | -0.010           | 1.20           | 0.233        | 43       |
| Right Tilt           | standard   | off    | 0mm      | 1:1        | 1             | 99        | 21100/2535              | 24.00         | 23.21                | 0.022                        | 0.040            | 1.20           | 0.026        | /        |
| Left Cheek           | standard   | off    | 0mm      | 1:1        | 50%           | 50        | 21350/2560              | 23.00         | 22.09                | 0.102                        | 0.060            | 1.23           | 0.126        | /        |
| Left Tilt            | standard   | off    | 0mm      | 1:1        | 50%           | 50        | 21350/2560              | 23.00         | 22.09                | 0.077                        | 0.022            | 1.23           | 0.095        | /        |
| Right Cheek          | standard   | off    | 0mm      | 1:1        | 50%           | 50        | 21350/2560              | 23.00         | 22.09                | 0.026                        | -0.032           | 1.23           | 0.033        | /        |
| Right Tilt           | standard   | off    | 0mm      | 1:1        | 50%           | 50        | 21350/2560              | 23.00         | 22.09                | 0.026                        | -0.032           | 1.23           | 0.033        | /        |
| Right Cheek          | standard   | off    | 0mm      | 1:1        | 1             | 0         | 21350/2560(PCC)         | 24.00         | 22.98                | 0.11                         | -0.19            | 1.26           | 0.13         | /        |
|                      |            |        |          |            | 1             | 99        | 21152/2540.2(SCC)       |               |                      |                              |                  |                |              |          |
| Right Cheek          | Battery2   | off    | 0mm      | 1:1        | 1             | 99        | 21100/2535              | 24.00         | 23.21                | 0.176                        | 0.038            | 1.20           | 0.211        | /        |
| Right Cheek          | SIM2       | off    | 0mm      | 1:1        | 1             | 99        | 21100/2535              | 24.00         | 23.21                | 0.189                        | -0.180           | 1.20           | 0.227        | /        |
| Body-worn SAR (QPSK) |            |        |          |            |               |           |                         |               |                      |                              |                  |                |              |          |
| Back Side            | standard   | off    | 15mm     | 1:1        | 1             | 99        | 21100/2535              | 24.00         | 23.21                | 0.367                        | 0.025            | 1.20           | 0.440        | 44       |
| Front Side           | standard   | off    | 15mm     | 1:1        | 1             | 99        | 21100/2535              | 24.00         | 23.21                | 0.261                        | 0.002            | 1.20           | 0.313        | /        |
| Back Side            | standard   | off    | 15mm     | 1:1        | 50%           | 50        | 21350/2560              | 23.00         | 22.09                | 0.283                        | 0.024            | 1.23           | 0.349        | /        |
| Front Side           | standard   | off    | 15mm     | 1:1        | 50%           | 50        | 21350/2560              | 23.00         | 22.09                | 0.173                        | -0.037           | 1.23           | 0.213        | /        |
| Back Side            | standard   | off    | 15mm     | 1:1        | 1             | 0         | 21350/2560(PCC)         | 24.00         | 22.98                | 0.320                        | 0.082            | 1.26           | 0.405        | /        |
|                      |            |        |          |            | 1             | 99        | 21152/2540.2(SCC)       |               |                      |                              |                  |                |              |          |
| Back Side            | Battery2   | off    | 15mm     | 1:1        | 1             | 99        | 21100/2535              | 24.00         | 23.21                | 0.339                        | 0.025            | 1.20           | 0.407        | /        |
| Back Side            | SIM2       | off    | 15mm     | 1:1        | 1             | 99        | 21100/2535              | 24.00         | 23.21                | 0.331                        | 0.037            | 1.20           | 0.397        | /        |
| Hotspot SAR(QPSK)    |            |        |          |            |               |           |                         |               |                      |                              |                  |                |              |          |
| Back Side            | standard   | off    | 10mm     | 1:1        | 1             | 99        | 21100/2535              | 20.50         | 19.75                | 0.275                        | 0.028            | 1.19           | 0.327        | /        |
| Front Side           | standard   | off    | 10mm     | 1:1        | 1             | 99        | 21100/2535              | 20.50         | 19.75                | 0.204                        | 0.030            | 1.19           | 0.242        | /        |
| Left Edge            | standard   | off    | 10mm     | 1:1        | 1             | 99        | 21100/2535              | 20.50         | 19.75                | 0.062                        | 0.102            | 1.19           | 0.074        | /        |
| Right Edge           | standard   | off    | 10mm     | 1:1        | 1             | 99        | 21100/2535              | 20.50         | 19.75                | 0.087                        | 0.029            | 1.19           | 0.103        | /        |
| Top Edge             | N/A        | N/A    | N/A      | N/A        | N/A           | N/A       | N/A                     | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Bottom Edge          | standard   | on     | 10mm     | 1:1        | 1             | 99        | 21100/2535              | 20.50         | 19.75                | 0.322                        | -0.023           | 1.19           | 0.383        | /        |
| Bottom Edge          | standard   | off    | 11mm     | 1:1        | 1             | 99        | 21100/2535              | 20.50         | 19.75                | 0.396                        | 0.130            | 1.19           | 0.471        | 45       |

|             |          |     |      |     |     |     |                   |       |       |       |        |      |       |     |
|-------------|----------|-----|------|-----|-----|-----|-------------------|-------|-------|-------|--------|------|-------|-----|
| Back Side   | standard | off | 10mm | 1:1 | 50% | 0   | 21350/2560        | 20.50 | 19.72 | 0.268 | 0.038  | 1.20 | 0.321 | /   |
| Front Side  | standard | off | 10mm | 1:1 | 50% | 0   | 21350/2560        | 20.50 | 19.72 | 0.198 | 0.031  | 1.20 | 0.237 | /   |
| Left Edge   | standard | off | 10mm | 1:1 | 50% | 0   | 21350/2560        | 20.50 | 19.72 | 0.052 | 0.145  | 1.20 | 0.062 | /   |
| Right Edge  | standard | off | 10mm | 1:1 | 50% | 0   | 21350/2560        | 20.50 | 19.72 | 0.063 | -0.010 | 1.20 | 0.075 | /   |
| Top Edge    | N/A      | N/A | N/A  | N/A | N/A | N/A | N/A               | N/A   | N/A   | N/A   | N/A    | N/A  | N/A   | N/A |
| Bottom Edge | standard | on  | 10mm | 1:1 | 50% | 0   | 21350/2560        | 20.50 | 19.72 | 0.312 | 0.056  | 1.20 | 0.373 | /   |
| Bottom Edge | standard | off | 11mm | 1:1 | 50% | 0   | 21350/2560        | 20.50 | 19.72 | 0.258 | 0.090  | 1.20 | 0.309 | /   |
| Bottom Edge | standard | off | 11mm | 1:1 | 1   | 0   | 21350/2560(PCC)   | 20.50 | 20.42 | 0.273 | -0.042 | 1.02 | 0.278 | /   |
|             |          |     |      |     | 1   | 99  | 21152/2540.2(SCC) |       |       |       |        |      |       |     |
| Bottom Edge | Battery2 | off | 11mm | 1:1 | 1   | 99  | 21100/2535        | 20.50 | 19.75 | 0.371 | 0.130  | 1.19 | 0.441 | /   |
| Bottom Edge | SIM2     | off | 11mm | 1:1 | 1   | 99  | 21100/2535        | 20.50 | 19.75 | 0.381 | 0.020  | 1.19 | 0.453 | /   |

Note: 1. The value with blue color is the maximum SAR Value of each test band.

2. For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are  $\geq 50\%$  limit(10g).

| MAX Adjusted SAR |            |        |          |            |               |           |                         |                  |             |                     |                |                                |         |
|------------------|------------|--------|----------|------------|---------------|-----------|-------------------------|------------------|-------------|---------------------|----------------|--------------------------------|---------|
| Test Position    | Cover Type | Sensor | Distance | Duty Cycle | RB allocation | RB offset | Channel/Frequency (MHz) | Full power (dBm) | Tune-up dBm | Report SAR1g (mW/g) | Scaling Factor | Full power Report SAR1g (mW/g) | 0mm SAR |
| Back Side        | standard   | off    | 10mm     | 1:1        | 1             | 99        | 21350/2560              | 24.00            | 20.50       | 0.327               | 2.24           | 0.732                          | No      |
| Front Side       | standard   | off    | 10mm     | 1:1        | 1             | 99        | 21350/2560              | 24.00            | 20.50       | 0.242               | 2.24           | 0.542                          | No      |
| Left Edge        | standard   | off    | 10mm     | 1:1        | 1             | 99        | 21350/2560              | 24.00            | 20.50       | 0.074               | 2.24           | 0.166                          | No      |
| Right Edge       | standard   | off    | 10mm     | 1:1        | 1             | 99        | 21350/2560              | 24.00            | 20.50       | 0.103               | 2.24           | 0.231                          | No      |
| Top Edge         | N/A        | N/A    | N/A      | N/A        | N/A           | N/A       | N/A                     | N/A              | N/A         | N/A                 | N/A            | N/A                            | N/A     |
| Bottom Edge      | standard   | on     | 10mm     | 1:1        | 1             | 0         | 21350/2560              | 24.00            | 19.00       | 0.383               | N/A            | N/A                            | No      |
| Bottom Edge      | standard   | off    | 11mm     | 1:1        | 1             | 99        | 21350/2560              | 24.00            | 20.50       | 0.471               | 2.24           | 1.054                          | No      |
| Back Side        | standard   | off    | 10mm     | 1:1        | 50%           | 50        | 21350/2560              | 24.00            | 20.50       | 0.321               | 2.24           | 0.719                          | No      |
| Front Side       | standard   | off    | 10mm     | 1:1        | 50%           | 50        | 21350/2560              | 24.00            | 20.50       | 0.237               | 2.24           | 0.531                          | No      |
| Left Edge        | standard   | off    | 10mm     | 1:1        | 50%           | 50        | 21350/2560              | 24.00            | 20.50       | 0.062               | 2.24           | 0.139                          | No      |
| Right Edge       | standard   | off    | 10mm     | 1:1        | 50%           | 50        | 21350/2560              | 24.00            | 20.50       | 0.075               | 2.24           | 0.168                          | No      |
| Top Edge         | N/A        | N/A    | N/A      | N/A        | N/A           | N/A       | N/A                     | N/A              | N/A         | N/A                 | N/A            | N/A                            | N/A     |
| Bottom Edge      | standard   | on     | 10mm     | 1:1        | 50%           | 50        | 21350/2560              | 24.00            | 19.00       | 0.373               | 3.16           | 1.180                          | No      |
| Bottom Edge      | standard   | off    | 11mm     | 1:1        | 50%           | 50        | 21350/2560              | 24.00            | 20.50       | 0.309               | 2.24           | 0.692                          | No      |
| Bottom Edge      | standard   | off    | 11mm     | 1:1        | 1             | 0         | 21350/2560(PCC)         | 24.00            | 20.50       | 0.278               | 2.24           | 0.622                          | No      |
|                  |            |        |          |            | 1             | 99        | 21152/2540.2(SCC)       |                  |             |                     |                |                                |         |



|             |          |     |      |     |   |    |            |       |       |       |      |       |    |
|-------------|----------|-----|------|-----|---|----|------------|-------|-------|-------|------|-------|----|
| Bottom Edge | Battery2 | off | 11mm | 1:1 | 1 | 99 | 21350/2560 | 24.00 | 20.50 | 0.441 | 2.24 | 0.987 | No |
|-------------|----------|-----|------|-----|---|----|------------|-------|-------|-------|------|-------|----|

Note: According to 648474 D04 Handset SAR v01r03, For Phablet, Since hotspot mode 1-reported SAR < 1.2 W/kg, Product Specific 10-g SAR is not required.

**Table 18: LTE Band 12 (10MHz, Main-antenna)**
**Original**

| Test Position        | Cover Type | Sensor | Distance | Duty Cycle | RB allocation | RB offset | Channel/Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|----------------------|------------|--------|----------|------------|---------------|-----------|-------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|                      |            |        |          |            |               |           |                         |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR (QPSK)      |            |        |          |            |               |           |                         |               |                      |                              |                  |                |              |          |
| Left Cheek           | standard   | off    | 0mm      | 1:1        | 1             | 49        | 23095/707.5             | 25.00         | 24.04                | 0.083                        | 0.112            | 1.25           | 0.103        | /        |
| Left Tilt            | standard   | off    | 0mm      | 1:1        | 1             | 49        | 23095/707.5             | 25.00         | 24.04                | 0.044                        | 0.024            | 1.25           | 0.055        | /        |
| Right Cheek          | standard   | off    | 0mm      | 1:1        | 1             | 49        | 23095/707.5             | 25.00         | 24.04                | 0.104                        | 0.065            | 1.25           | 0.130        | /        |
| Right Tilt           | standard   | off    | 0mm      | 1:1        | 1             | 49        | 23095/707.5             | 25.00         | 24.04                | 0.036                        | 0.031            | 1.25           | 0.045        | /        |
| Left Cheek           | standard   | off    | 0mm      | 1:1        | 50%           | 25        | 23095/707.5             | 24.00         | 23.02                | 0.076                        | 0.074            | 1.25           | 0.095        | /        |
| Left Tilt            | standard   | off    | 0mm      | 1:1        | 50%           | 25        | 23095/707.5             | 24.00         | 23.02                | 0.040                        | 0.112            | 1.25           | 0.050        | /        |
| Right Cheek          | standard   | off    | 0mm      | 1:1        | 50%           | 25        | 23095/707.5             | 24.00         | 23.02                | 0.086                        | 0.095            | 1.25           | 0.108        | /        |
| Right Tilt           | standard   | off    | 0mm      | 1:1        | 50%           | 25        | 23095/707.5             | 24.00         | 23.02                | 0.040                        | 0.026            | 1.25           | 0.050        | /        |
| Right Cheek          | Battery2   | off    | 0mm      | 1:1        | 1             | 49        | 23095/707.5             | 25.00         | 24.04                | 0.094                        | 0.075            | 1.25           | 0.117        | /        |
| Body-worn SAR (QPSK) |            |        |          |            |               |           |                         |               |                      |                              |                  |                |              |          |
| Back Side            | standard   | off    | 15mm     | 1:1        | 1             | 49        | 23095/707.5             | 25.00         | 24.04                | 0.219                        | -0.020           | 1.25           | 0.273        | /        |
| Front Side           | standard   | off    | 15mm     | 1:1        | 1             | 49        | 23095/707.5             | 25.00         | 24.04                | 0.201                        | -0.027           | 1.25           | 0.251        | /        |
| Back Side            | standard   | off    | 15mm     | 1:1        | 50%           | 25        | 23095/707.5             | 24.00         | 23.02                | 0.183                        | 0.050            | 1.25           | 0.229        | /        |
| Front Side           | standard   | off    | 15mm     | 1:1        | 50%           | 25        | 23095/707.5             | 24.00         | 23.02                | 0.168                        | 0.010            | 1.25           | 0.211        | /        |
| Back Side            | Battery2   | off    | 15mm     | 1:1        | 1             | 49        | 23095/707.5             | 25.00         | 24.04                | 0.192                        | 0.033            | 1.25           | 0.239        | /        |
| Hotspot SAR(QPSK)    |            |        |          |            |               |           |                         |               |                      |                              |                  |                |              |          |
| Back Side            | standard   | off    | 10mm     | 1:1        | 1             | 25        | 23095/707.5             | 24.50         | 23.40                | 0.284                        | -0.040           | 1.29           | 0.366        | /        |
| Front Side           | standard   | off    | 10mm     | 1:1        | 1             | 25        | 23095/707.5             | 24.50         | 23.40                | 0.231                        | -0.150           | 1.29           | 0.298        | /        |
| Left Edge            | standard   | off    | 10mm     | 1:1        | 1             | 25        | 23095/707.5             | 24.50         | 23.40                | 0.067                        | 0.120            | 1.29           | 0.086        | /        |
| Right Edge           | standard   | off    | 10mm     | 1:1        | 1             | 25        | 23095/707.5             | 24.50         | 23.40                | 0.081                        | -0.010           | 1.29           | 0.104        | /        |
| Top Edge             | N/A        | N/A    | N/A      | 1:1        | N/A           | N/A       | N/A                     | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Bottom Edge          | standard   | off    | 10mm     | 1:1        | 1             | 25        | 23095/707.5             | 24.50         | 23.40                | 0.101                        | 0.010            | 1.29           | 0.130        | /        |
| Back Side            | standard   | off    | 10mm     | 1:1        | 50%           | 13        | 23060/704               | 24.00         | 22.78                | 0.271                        | 0.060            | 1.32           | 0.359        | /        |
| Front Side           | standard   | off    | 10mm     | 1:1        | 50%           | 13        | 23060/704               | 24.00         | 22.78                | 0.216                        | 0.090            | 1.32           | 0.286        | /        |
| Left Edge            | standard   | off    | 10mm     | 1:1        | 50%           | 13        | 23060/704               | 24.00         | 22.78                | 0.059                        | 0.100            | 1.32           | 0.078        | /        |
| Right Edge           | standard   | off    | 10mm     | 1:1        | 50%           | 13        | 23060/704               | 24.00         | 22.78                | 0.061                        | -0.120           | 1.32           | 0.081        | /        |
| Top Edge             | N/A        | N/A    | N/A      | N/A        | N/A           | N/A       | N/A                     | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Bottom Edge          | standard   | off    | 10mm     | 1:1        | 50%           | 13        | 23060/704               | 24.00         | 22.78                | 0.097                        | 0.080            | 1.32           | 0.128        | /        |
| Back Side            | Battery2   | off    | 10mm     | 1:1        | 1             | 25        | 23095/707.5             | 24.50         | 23.40                | 0.268                        | 0.016            | 1.29           | 0.345        | /        |

Note: 1. The value with blue color is the maximum SAR Value of each test band.

2. For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are  $\geq$  50% limit(10g).

| MAX Adjusted SAR |            |        |          |            |               |           |                         |                  |               |                     |                |                                |         |
|------------------|------------|--------|----------|------------|---------------|-----------|-------------------------|------------------|---------------|---------------------|----------------|--------------------------------|---------|
| Test Position    | Cover Type | Sensor | Distance | Duty Cycle | RB allocation | RB offset | Channel/Frequency (MHz) | Full power (dBm) | Tune-up (dBm) | Report SAR1g (mW/g) | Scaling Factor | Full power Report SAR1g (mW/g) | 0mm SAR |
| Back Side        | standard   | off    | 10mm     | 1:1        | 1             | 25        | 23095/707.5             | 25.00            | 24.50         | 0.366               | 1.12           | 0.411                          | No      |
| Front Side       | standard   | off    | 10mm     | 1:1        | 1             | 25        | 23095/707.5             | 25.00            | 24.50         | 0.298               | 1.12           | 0.334                          | No      |
| Left Edge        | standard   | off    | 10mm     | 1:1        | 1             | 25        | 23095/707.5             | 25.00            | 24.50         | 0.086               | 1.12           | 0.096                          | No      |
| Right Edge       | standard   | off    | 10mm     | 1:1        | 1             | 25        | 23095/707.5             | 25.00            | 24.50         | 0.104               | 1.12           | 0.117                          | No      |
| Top Edge         | N/A        | N/A    | N/A      | N/A        | N/A           | N/A       | N/A                     | 25.00            | N/A           | N/A                 | N/A            | N/A                            | N/A     |
| Bottom Edge      | standard   | off    | 10mm     | 1:1        | 1             | 25        | 23095/707.5             | 25.00            | 24.50         | 0.130               | 1.12           | 0.146                          | No      |
| Back Side        | standard   | off    | 10mm     | 1:1        | 50%           | 13        | 23060/704               | 24.50            | 24.00         | 0.359               | 1.12           | 0.403                          | No      |
| Front Side       | standard   | off    | 10mm     | 1:1        | 50%           | 13        | 23060/704               | 24.50            | 24.00         | 0.286               | 1.12           | 0.321                          | No      |
| Left Edge        | standard   | off    | 10mm     | 1:1        | 50%           | 13        | 23060/704               | 24.50            | 24.00         | 0.078               | 1.12           | 0.088                          | No      |
| Right Edge       | standard   | off    | 10mm     | 1:1        | 50%           | 13        | 23060/704               | 24.50            | 24.00         | 0.081               | 1.12           | 0.091                          | No      |
| Top Edge         | N/A        | N/A    | N/A      | N/A        | N/A           | N/A       | N/A                     | 24.50            | N/A           | N/A                 | N/A            | N/A                            | N/A     |
| Bottom Edge      | standard   | off    | 10mm     | 1:1        | 50%           | 13        | 23060/704               | 24.50            | 24.00         | 0.128               | 1.12           | 0.144                          | No      |
| Back Side        | Battery2   | off    | 10mm     | 1:1        | 1             | 25        | 23095/707.5             | 25.00            | 24.50         | 0.345               | 1.12           | 0.387                          | No      |

Note: According to 648474 D04 Handset SAR v01r03, For Phablet, Since hotspot mode 1-greortedSAR < 1.2 W/kg, Product Specific 10-g SAR is not required.

### Variant

| Test Position                                                                  | Cover Type | Sensor | Distance | Duty Cycle | RB allocation | RB offset | Channel/Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No |
|--------------------------------------------------------------------------------|------------|--------|----------|------------|---------------|-----------|-------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|---------|
|                                                                                |            |        |          |            |               |           |                         |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |         |
| Head SAR (QPSK)                                                                |            |        |          |            |               |           |                         |               |                      |                              |                  |                |              |         |
| Right Cheek                                                                    | standard   | off    | 0mm      | 1:1        | 1             | 49        | 23095/707.5             | 25.00         | 24.04                | 0.112                        | 0.046            | 1.25           | 0.140        | 46      |
| Right Cheek                                                                    | SIM2       | off    | 0mm      | 1:1        | 1             | 49        | 23095/707.5             | 25.00         | 24.04                | 0.102                        | 0.090            | 1.25           | 0.127        | /       |
| Body-worn SAR (QPSK)                                                           |            |        |          |            |               |           |                         |               |                      |                              |                  |                |              |         |
| Back Side                                                                      | standard   | off    | 15mm     | 1:1        | 1             | 49        | 23095/707.5             | 25.00         | 24.04                | 0.105                        | 0.080            | 1.25           | 0.131        | 47      |
| Back Side                                                                      | SIM2       | off    | 15mm     | 1:1        | 1             | 49        | 23095/707.5             | 25.00         | 24.04                | 0.098                        | -0.090           | 1.25           | 0.122        | /       |
| Hotspot SAR(QPSK)                                                              |            |        |          |            |               |           |                         |               |                      |                              |                  |                |              |         |
| Back Side                                                                      | standard   | off    | 10mm     | 1:1        | 1             | 25        | 23095/707.5             | 24.50         | 23.40                | 0.151                        | 0.080            | 1.29           | 0.195        | 48      |
| Back Side                                                                      | SIM2       | off    | 10mm     | 1:1        | 1             | 49        | 23095/707.5             | 24.50         | 23.40                | 0.143                        | 0.020            | 1.29           | 0.184        | /       |
| Note: 1. The value with blue color is the maximum SAR Value of each test band. |            |        |          |            |               |           |                         |               |                      |                              |                  |                |              |         |

**Table 19: LTE Band 17 (10MHz, Main-antenna)**
**Original**

| Test Position                                                                                                                                       | Cover Type | Sensor | Distance | Duty Cycle | RB allocation | RB offset | Channel/Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------|----------|------------|---------------|-----------|-------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|                                                                                                                                                     |            |        |          |            |               |           |                         |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR (QPSK)                                                                                                                                     |            |        |          |            |               |           |                         |               |                      |                              |                  |                |              |          |
| Left Cheek                                                                                                                                          | standard   | off    | 0mm      | 1:1        | 1             | 25        | 23790/710               | 25.00         | 24.03                | 0.096                        | 0.070            | 1.25           | 0.120        | /        |
| Left Tilt                                                                                                                                           | standard   | off    | 0mm      | 1:1        | 1             | 25        | 23790/710               | 25.00         | 24.03                | 0.047                        | 0.060            | 1.25           | 0.058        | /        |
| Right Cheek                                                                                                                                         | standard   | off    | 0mm      | 1:1        | 1             | 25        | 23790/710               | 25.00         | 24.03                | 0.116                        | 0.062            | 1.25           | 0.145        | /        |
| Right Tilt                                                                                                                                          | standard   | off    | 0mm      | 1:1        | 1             | 25        | 23790/710               | 25.00         | 24.03                | 0.052                        | 0.038            | 1.25           | 0.065        | /        |
| Left Cheek                                                                                                                                          | standard   | off    | 0mm      | 1:1        | 50%           | 13        | 23790/710               | 24.00         | 22.90                | 0.075                        | 0.067            | 1.29           | 0.096        | /        |
| Left Tilt                                                                                                                                           | standard   | off    | 0mm      | 1:1        | 50%           | 13        | 23790/710               | 24.00         | 22.90                | 0.037                        | 0.028            | 1.29           | 0.048        | /        |
| Right Cheek                                                                                                                                         | standard   | off    | 0mm      | 1:1        | 50%           | 13        | 23790/710               | 24.00         | 22.90                | 0.088                        | 0.033            | 1.29           | 0.114        | /        |
| Right Tilt                                                                                                                                          | standard   | off    | 0mm      | 1:1        | 50%           | 13        | 23790/710               | 24.00         | 22.90                | 0.039                        | 0.040            | 1.29           | 0.050        | /        |
| Right Cheek                                                                                                                                         | Battery2   | off    | 0mm      | 1:1        | 1             | 25        | 23790/710               | 25.00         | 24.03                | 0.093                        | 0.016            | 1.25           | 0.116        | /        |
| Body-worn SAR (QPSK)                                                                                                                                |            |        |          |            |               |           |                         |               |                      |                              |                  |                |              |          |
| Back Side                                                                                                                                           | standard   | off    | 15mm     | 1:1        | 1             | 49        | 23790/710               | 25.00         | 24.03                | 0.168                        | 0.010            | 1.25           | 0.210        | /        |
| Front Side                                                                                                                                          | standard   | off    | 15mm     | 1:1        | 1             | 25        | 23790/710               | 25.00         | 24.03                | 0.132                        | 0.050            | 1.25           | 0.165        | /        |
| Back Side                                                                                                                                           | standard   | off    | 15mm     | 1:1        | 50%           | 13        | 23790/710               | 24.00         | 22.90                | 0.153                        | 0.190            | 1.29           | 0.197        | /        |
| Front Side                                                                                                                                          | standard   | off    | 15mm     | 1:1        | 50%           | 13        | 23790/710               | 24.00         | 22.90                | 0.122                        | -0.040           | 1.29           | 0.157        | /        |
| Back Side                                                                                                                                           | Battery2   | off    | 15mm     | 1:1        | 1             | 25        | 23790/710               | 25.00         | 24.03                | 0.158                        | -0.045           | 1.25           | 0.198        | /        |
| Hotspot SAR(QPSK)                                                                                                                                   |            |        |          |            |               |           |                         |               |                      |                              |                  |                |              |          |
| Back Side                                                                                                                                           | standard   | off    | 10mm     | 1:1        | 1             | 49        | 23780/709               | 24.50         | 23.32                | 0.234                        | -0.030           | 1.31           | 0.307        | /        |
| Front Side                                                                                                                                          | standard   | off    | 10mm     | 1:1        | 1             | 49        | 23780/709               | 24.50         | 23.32                | 0.186                        | 0.050            | 1.31           | 0.244        | /        |
| Left Edge                                                                                                                                           | standard   | off    | 10mm     | 1:1        | 1             | 49        | 23780/709               | 24.50         | 23.32                | 0.101                        | 0.087            | 1.31           | 0.133        | /        |
| Right Edge                                                                                                                                          | standard   | off    | 10mm     | 1:1        | 1             | 49        | 23780/709               | 24.50         | 23.32                | 0.091                        | 0.031            | 1.31           | 0.119        | /        |
| Top Edge                                                                                                                                            | N/A        | N/A    | N/A      | 1:1        | N/A           | N/A       | N/A                     | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Bottom Edge                                                                                                                                         | standard   | off    | 10mm     | 1:1        | 1             | 49        | 23780/709               | 24.50         | 23.32                | 0.080                        | 0.080            | 1.31           | 0.105        | /        |
| Back Side                                                                                                                                           | standard   | off    | 10mm     | 1:1        | 50%           | 25        | 23800/711               | 24.00         | 22.76                | 0.220                        | -0.030           | 1.33           | 0.293        | /        |
| Front Side                                                                                                                                          | standard   | off    | 10mm     | 1:1        | 50%           | 25        | 23800/711               | 24.00         | 22.76                | 0.171                        | 0.040            | 1.33           | 0.228        | /        |
| Left Edge                                                                                                                                           | standard   | off    | 10mm     | 1:1        | 50%           | 25        | 23800/711               | 24.00         | 22.76                | 0.087                        | 0.030            | 1.33           | 0.116        | /        |
| Right Edge                                                                                                                                          | standard   | off    | 10mm     | 1:1        | 50%           | 25        | 23800/711               | 24.00         | 22.76                | 0.092                        | 0.045            | 1.33           | 0.122        | /        |
| Top Edge                                                                                                                                            | N/A        | N/A    | N/A      | N/A        | N/A           | N/A       | N/A                     | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Bottom Edge                                                                                                                                         | standard   | off    | 10mm     | 1:1        | 50%           | 25        | 23800/711               | 24.00         | 22.76                | 0.075                        | -0.010           | 1.33           | 0.100        | /        |
| Back Side                                                                                                                                           | Battery2   | off    | 10mm     | 1:1        | 1             | 49        | 23780/709               | 24.50         | 23.32                | 0.211                        | -0.031           | 1.31           | 0.277        | /        |
| Note: 1.The value with blue color is the maximum SAR Value of each test band.                                                                       |            |        |          |            |               |           |                         |               |                      |                              |                  |                |              |          |
| 2.For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are $\geq 50\%$ limit(10g). |            |        |          |            |               |           |                         |               |                      |                              |                  |                |              |          |

| MAX Adjusted SAR |            |        |          |            |               |           |                         |                  |               |                     |                |                                |         |
|------------------|------------|--------|----------|------------|---------------|-----------|-------------------------|------------------|---------------|---------------------|----------------|--------------------------------|---------|
| Test Position    | Cover Type | Sensor | Distance | Duty Cycle | RB allocation | RB offset | Channel/Frequency (MHz) | Full power (dBm) | Tune-up (dBm) | Report SAR1g (mW/g) | Scaling Factor | Full power Report SAR1g (mW/g) | 0mm SAR |
| Back Side        | standard   | off    | 10mm     | 1:1        | 1             | 49        | 23780/709               | 25.00            | 24.50         | 0.307               | 1.12           | 0.344                          | No      |
| Front Side       | standard   | off    | 10mm     | 1:1        | 1             | 49        | 23780/709               | 25.00            | 24.50         | 0.244               | 1.12           | 0.274                          | No      |
| Left Edge        | standard   | off    | 10mm     | 1:1        | 1             | 49        | 23780/709               | 25.00            | 24.50         | 0.133               | 1.12           | 0.149                          | No      |
| Right Edge       | standard   | off    | 10mm     | 1:1        | 1             | 49        | 23780/709               | 25.00            | 24.50         | 0.119               | 1.12           | 0.134                          | No      |
| Top Edge         | N/A        | N/A    | N/A      | N/A        | N/A           | N/A       | N/A                     | 25.00            | N/A           | N/A                 | N/A            | N/A                            | N/A     |
| Bottom Edge      | standard   | off    | 10mm     | 1:1        | 1             | 49        | 23780/709               | 25.00            | 24.50         | 0.105               | 1.12           | 0.118                          | No      |
| Back Side        | standard   | off    | 10mm     | 1:1        | 50%           | 25        | 23800/711               | 24.50            | 24.00         | 0.293               | 1.12           | 0.329                          | No      |
| Front Side       | standard   | off    | 10mm     | 1:1        | 50%           | 25        | 23800/711               | 24.50            | 24.00         | 0.228               | 1.12           | 0.256                          | No      |
| Left Edge        | standard   | off    | 10mm     | 1:1        | 50%           | 25        | 23800/711               | 24.50            | 24.00         | 0.116               | 1.12           | 0.130                          | No      |
| Right Edge       | standard   | off    | 10mm     | 1:1        | 50%           | 25        | 23800/711               | 24.50            | 24.00         | 0.122               | 1.12           | 0.137                          | No      |
| Top Edge         | N/A        | N/A    | N/A      | N/A        | N/A           | N/A       | N/A                     | 24.50            | N/A           | N/A                 | N/A            | N/A                            | N/A     |
| Bottom Edge      | standard   | off    | 10mm     | 1:1        | 50%           | 25        | 23800/711               | 24.50            | 24.00         | 0.100               | 1.12           | 0.112                          | No      |
| Back Side        | Battery2   | off    | 10mm     | 1:1        | 1             | 49        | 23780/709               | 25.00            | 24.50         | 0.277               | 1.12           | 0.311                          | No      |

Note: According to 648474 D04 Handset SAR v01r03, For Phablet, Since hotspot mode 1-greportedSAR < 1.2 W/kg, Product Specific 10-g SAR is not required.

### Variant

| Test Position                                                                  | Cover Type | Sensor | Distance | Duty Cycle | RB allocation | RB offset | Channel/ Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No |
|--------------------------------------------------------------------------------|------------|--------|----------|------------|---------------|-----------|--------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|---------|
|                                                                                |            |        |          |            |               |           |                          |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |         |
| Head SAR (QPSK)                                                                |            |        |          |            |               |           |                          |               |                      |                              |                  |                |              |         |
| Right Cheek                                                                    | standard   | off    | 0mm      | 1:1        | 1             | 25        | 23790/710                | 25.00         | 24.03                | 0.126                        | 0.141            | 1.25           | 0.158        | 49      |
| Right Cheek                                                                    | SIM2       | off    | 0mm      | 1:1        | 1             | 25        | 23790/710                | 25.00         | 24.03                | 0.118                        | 0.032            | 1.25           | 0.148        | /       |
| Body-worn SAR (QPSK)                                                           |            |        |          |            |               |           |                          |               |                      |                              |                  |                |              |         |
| Back Side                                                                      | standard   | off    | 15mm     | 1:1        | 1             | 49        | 23790/710                | 25.00         | 24.03                | 0.102                        | 0.036            | 1.25           | 0.128        | 50      |
| Back Side                                                                      | SIM2       | off    | 15mm     | 1:1        | 1             | 49        | 23790/710                | 25.00         | 24.03                | 0.094                        | 0.059            | 1.25           | 0.118        | /       |
| Hotspot SAR(QPSK)                                                              |            |        |          |            |               |           |                          |               |                      |                              |                  |                |              |         |
| Back Side                                                                      | standard   | off    | 10mm     | 1:1        | 1             | 49        | 23780/709                | 24.50         | 23.32                | 0.168                        | 0.130            | 1.31           | 0.220        | 51      |
| Back Side                                                                      | SIM2       | off    | 10mm     | 1:1        | 1             | 49        | 23780/709                | 24.50         | 23.32                | 0.126                        | 0.081            | 1.31           | 0.165        | /       |
| Note: 1. The value with blue color is the maximum SAR Value of each test band. |            |        |          |            |               |           |                          |               |                      |                              |                  |                |              |         |



**Table 20: LTE Band 26 (15MHz, Main-antenna)**
**Original**

| Test Position        | Cover Type | Sensor | Distance | Duty Cycle | RB allocation | RB offset | Channel/<br>Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|----------------------|------------|--------|----------|------------|---------------|-----------|-----------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|                      |            |        |          |            |               |           |                             |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR (QPSK)      |            |        |          |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Left Cheek           | standard   | off    | 0mm      | 1:1        | 1             | 38        | 26865/831.5                 | 25.00         | 23.72                | 0.080                        | 0.105            | 1.34           | 0.108        | /        |
| Left Tilt            | standard   | off    | 0mm      | 1:1        | 1             | 38        | 26865/831.5                 | 25.00         | 23.72                | 0.042                        | 0.035            | 1.34           | 0.056        | /        |
| Right Cheek          | standard   | off    | 0mm      | 1:1        | 1             | 38        | 26865/831.5                 | 25.00         | 23.72                | 0.120                        | 0.043            | 1.34           | 0.161        | /        |
| Right Tilt           | standard   | off    | 0mm      | 1:1        | 1             | 38        | 26865/831.5                 | 25.00         | 23.72                | 0.044                        | 0.031            | 1.34           | 0.059        | /        |
| Left Cheek           | standard   | off    | 0mm      | 1:1        | 50%           | 0         | 26965/841.5                 | 24.00         | 22.80                | 0.064                        | 0.106            | 1.32           | 0.084        | /        |
| Left Tilt            | standard   | off    | 0mm      | 1:1        | 50%           | 0         | 26965/841.5                 | 24.00         | 22.80                | 0.035                        | 0.029            | 1.32           | 0.046        | /        |
| Right Cheek          | standard   | off    | 0mm      | 1:1        | 50%           | 0         | 26965/841.5                 | 24.00         | 22.80                | 0.091                        | 0.089            | 1.32           | 0.119        | /        |
| Right Tilt           | standard   | off    | 0mm      | 1:1        | 50%           | 0         | 26965/841.5                 | 24.00         | 22.80                | 0.032                        | 0.034            | 1.32           | 0.042        | /        |
| Right Cheek          | Battery2   | off    | 0mm      | 1:1        | 1             | 38        | 26865/831.5                 | 25.00         | 23.72                | 0.103                        | -0.060           | 1.34           | 0.138        | /        |
| Body-worn SAR (QPSK) |            |        |          |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Back Side            | standard   | off    | 15mm     | 1:1        | 1             | 38        | 26865/831.5                 | 25.00         | 23.72                | 0.191                        | 0.120            | 1.34           | 0.256        | /        |
| Front Side           | standard   | off    | 15mm     | 1:1        | 1             | 38        | 26865/831.5                 | 25.00         | 23.72                | 0.144                        | 0.050            | 1.34           | 0.193        | /        |
| Back Side            | standard   | off    | 15mm     | 1:1        | 50%           | 0         | 26965/841.5                 | 24.00         | 22.80                | 0.193                        | 0.050            | 1.32           | 0.254        | /        |
| Front Side           | standard   | off    | 15mm     | 1:1        | 50%           | 0         | 26965/841.5                 | 24.00         | 22.80                | 0.143                        | 0.050            | 1.32           | 0.189        | /        |
| Back Side            | Battery2   | off    | 15mm     | 1:1        | 1             | 38        | 26865/831.5                 | 25.00         | 23.72                | 0.136                        | 0.030            | 1.34           | 0.183        | /        |
| Hotspot SAR(QPSK)    |            |        |          |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Back Side            | standard   | off    | 10mm     | 1:1        | 1             | 38        | 26765/821.5                 | 24.00         | 22.75                | 0.294                        | 0.070            | 1.33           | 0.392        | /        |
| Front Side           | standard   | off    | 10mm     | 1:1        | 1             | 38        | 26765/821.5                 | 24.00         | 22.75                | 0.203                        | 0.146            | 1.33           | 0.271        | /        |
| Left Edge            | standard   | off    | 10mm     | 1:1        | 1             | 38        | 26765/821.5                 | 24.00         | 22.75                | 0.089                        | 0.120            | 1.33           | 0.119        | /        |
| Right Edge           | standard   | off    | 10mm     | 1:1        | 1             | 38        | 26765/821.5                 | 24.00         | 22.75                | 0.078                        | 0.098            | 1.33           | 0.104        | /        |
| Top Edge             | N/A        | N/A    | N/A      | 1:1        | N/A           | N/A       | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Bottom Edge          | standard   | off    | 10mm     | 1:1        | 1             | 38        | 26765/821.5                 | 24.00         | 22.75                | 0.159                        | 0.000            | 1.33           | 0.212        | /        |
| Back Side            | standard   | off    | 10mm     | 1:1        | 50%           | 18        | 26865/831.5                 | 24.00         | 22.81                | 0.315                        | 0.150            | 1.32           | 0.414        | /        |
| Front Side           | standard   | off    | 10mm     | 1:1        | 50%           | 18        | 26865/831.5                 | 24.00         | 22.81                | 0.210                        | 0.030            | 1.32           | 0.276        | /        |
| Left Edge            | standard   | off    | 10mm     | 1:1        | 50%           | 18        | 26865/831.5                 | 24.00         | 22.81                | 0.078                        | 0.061            | 1.32           | 0.103        | /        |
| Right Edge           | standard   | off    | 10mm     | 1:1        | 50%           | 18        | 26865/831.5                 | 24.00         | 22.81                | 0.067                        | 0.110            | 1.32           | 0.088        | /        |
| Top Edge             | N/A        | N/A    | N/A      | N/A        | N/A           | N/A       | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Bottom Edge          | standard   | off    | 10mm     | 1:1        | 50%           | 18        | 26865/831.5                 | 24.00         | 22.81                | 0.155                        | -0.120           | 1.32           | 0.204        | /        |
| Back Side            | Battery2   | off    | 10mm     | 1:1        | 50%           | 18        | 26865/831.5                 | 24.00         | 22.81                | 0.273                        | 0.035            | 1.32           | 0.359        | /        |

Note: 1. The value with blue color is the maximum SAR Value of each test band.

2. For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are  $\geq 50\%$  limit(10g).



| MAX Adjusted SAR |            |        |          |            |               |           |                         |                  |               |                     |                |                                |         |
|------------------|------------|--------|----------|------------|---------------|-----------|-------------------------|------------------|---------------|---------------------|----------------|--------------------------------|---------|
| Test Position    | Cover Type | Sensor | Distance | Duty Cycle | RB allocation | RB offset | Channel/Frequency (MHz) | Full power (dBm) | Tune-up (dBm) | Report SAR1g (mW/g) | Scaling Factor | Full power Report SAR1g (mW/g) | 0mm SAR |
| Back Side        | standard   | off    | 10mm     | 1:1        | 1             | 38        | 26765/821.5             | 25.00            | 24.00         | 0.392               | 1.26           | 0.493                          | No      |
| Front Side       | standard   | off    | 10mm     | 1:1        | 1             | 38        | 26765/821.5             | 25.00            | 24.00         | 0.271               | 1.26           | 0.341                          | No      |
| Left Edge        | standard   | off    | 10mm     | 1:1        | 1             | 38        | 26765/821.5             | 25.00            | 24.00         | 0.119               | 1.26           | 0.150                          | No      |
| Right Edge       | standard   | off    | 10mm     | 1:1        | 1             | 38        | 26765/821.5             | 25.00            | 24.00         | 0.104               | 1.26           | 0.131                          | No      |
| Top Edge         | N/A        | N/A    | N/A      | N/A        | N/A           | N/A       | N/A                     | 25.00            | N/A           | N/A                 | N/A            | N/A                            | N/A     |
| Bottom Edge      | standard   | off    | 10mm     | 1:1        | 1             | 38        | 26765/821.5             | 25.00            | 24.00         | 0.212               | 1.26           | 0.267                          | No      |
| Back Side        | standard   | off    | 10mm     | 1:1        | 50%           | 18        | 26865/831.5             | 25.00            | 24.00         | 0.414               | 1.26           | 0.521                          | No      |
| Front Side       | standard   | off    | 10mm     | 1:1        | 50%           | 18        | 26865/831.5             | 25.00            | 24.00         | 0.276               | 1.26           | 0.347                          | No      |
| Left Edge        | standard   | off    | 10mm     | 1:1        | 50%           | 18        | 26865/831.5             | 25.00            | 24.00         | 0.103               | 1.26           | 0.130                          | No      |
| Right Edge       | standard   | off    | 10mm     | 1:1        | 50%           | 18        | 26865/831.5             | 25.00            | 24.00         | 0.088               | 1.26           | 0.111                          | No      |
| Top Edge         | N/A        | N/A    | N/A      | N/A        | N/A           | N/A       | N/A                     | 25.00            | N/A           | N/A                 | N/A            | N/A                            | N/A     |
| Bottom Edge      | standard   | off    | 10mm     | 1:1        | 50%           | 18        | 26865/831.5             | 25.00            | 24.00         | 0.204               | 1.26           | 0.257                          | No      |
| Back Side        | Battery2   | off    | 10mm     | 1:1        | 1             | 18        | 26865/831.5             | 25.00            | 24.00         | 0.359               | 1.26           | 0.452                          | No      |

Note: According to 648474 D04 Handset SAR v01r03, For Phablet, Since hotspot mode 1-greortedSAR < 1.2 W/kg, Product Specific 10-g SAR is not required.

### Variant

| Test Position                                                                  | Cover Type | Sensor | Distance | Duty Cycle | RB allocation | RB offset | Channel/Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|--------------------------------------------------------------------------------|------------|--------|----------|------------|---------------|-----------|-------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|                                                                                |            |        |          |            |               |           |                         |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR (QPSK)                                                                |            |        |          |            |               |           |                         |               |                      |                              |                  |                |              |          |
| Right Cheek                                                                    | standard   | off    | 0mm      | 1:1        | 1             | 38        | 26865/831.5             | 25.00         | 23.72                | 0.111                        | 0.047            | 1.34           | 0.149        | 52       |
| Right Cheek                                                                    | SIM2       | off    | 0mm      | 1:1        | 1             | 38        | 26865/831.5             | 25.00         | 23.72                | 0.099                        | 0.089            | 1.34           | 0.133        | /        |
| Body-worn SAR (QPSK)                                                           |            |        |          |            |               |           |                         |               |                      |                              |                  |                |              |          |
| Back Side                                                                      | standard   | off    | 15mm     | 1:1        | 1             | 38        | 26865/831.5             | 25.00         | 23.72                | 0.206                        | 0.170            | 1.34           | 0.277        | 53       |
| Back Side                                                                      | SIM2       | off    | 15mm     | 1:1        | 1             | 38        | 26865/831.5             | 25.00         | 23.72                | 0.189                        | 0.029            | 1.34           | 0.254        | /        |
| Hotspot SAR(QPSK)                                                              |            |        |          |            |               |           |                         |               |                      |                              |                  |                |              |          |
| Back Side                                                                      | standard   | off    | 10mm     | 1:1        | 50%           | 18        | 26865/831.5             | 24.00         | 22.81                | 0.269                        | 0.060            | 1.32           | 0.354        | 54       |
| Back Side                                                                      | SIM2       | off    | 10mm     | 1:1        | 50%           | 18        | 26865/831.5             | 24.00         | 22.81                | 0.205                        | 0.049            | 1.32           | 0.270        | /        |
| Note: 1. The value with blue color is the maximum SAR Value of each test band. |            |        |          |            |               |           |                         |               |                      |                              |                  |                |              |          |

**Table 21: LTE Band 38 (20MHz, Main-antenna)**
**Original**

| Test Position        | Cover Type | Sensor | Distance | Duty Cycle | RB allocation | RB offset | Channel/<br>Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|----------------------|------------|--------|----------|------------|---------------|-----------|-----------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|                      |            |        |          |            |               |           |                             |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR (QPSK)      |            |        |          |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Left Cheek           | standard   | off    | 0mm      | 1:1.58     | 1             | 99        | 37850/2580                  | 23.63         | 23.10                | 0.045                        | 0.020            | 1.13           | 0.051        | /        |
| Left Tilt            | standard   | off    | 0mm      | 1:1.58     | 1             | 99        | 37850/2580                  | 23.63         | 23.10                | 0.039                        | 0.090            | 1.13           | 0.043        | /        |
| Right Cheek          | standard   | off    | 0mm      | 1:1.58     | 1             | 99        | 37850/2580                  | 23.63         | 23.10                | 0.065                        | 0.186            | 1.13           | 0.073        | /        |
| Right Tilt           | standard   | off    | 0mm      | 1:1.58     | 1             | 99        | 37850/2580                  | 23.63         | 23.10                | 0.020                        | 0.089            | 1.13           | 0.022        | /        |
| Left Cheek           | standard   | off    | 0mm      | 1:1.58     | 50%           | 0         | 38150/2610                  | 22.63         | 21.88                | 0.027                        | 0.073            | 1.19           | 0.033        | /        |
| Left Tilt            | standard   | off    | 0mm      | 1:1.58     | 50%           | 0         | 38150/2610                  | 22.63         | 21.88                | 0.027                        | -0.040           | 1.19           | 0.032        | /        |
| Right Cheek          | standard   | off    | 0mm      | 1:1.58     | 50%           | 0         | 38150/2610                  | 22.63         | 21.88                | 0.050                        | 0.198            | 1.19           | 0.060        | /        |
| Right Tilt           | standard   | off    | 0mm      | 1:1.58     | 50%           | 0         | 38150/2610                  | 22.63         | 21.88                | 0.014                        | 0.033            | 1.19           | 0.017        | /        |
| Right Cheek          | standard   | off    | 0mm      | 1:1.58     | 1             | 99        | 37850/2580(PCC)             | 23.63         | 22.88                | 0.051                        | 0.076            | 1.19           | 0.061        | /        |
|                      |            |        |          |            | 1             | 0         | 38048/2599.8(SCC)           |               |                      |                              |                  |                |              |          |
| Right Cheek          | Battery2   | off    | 0mm      | 1:1.58     | 1             | 99        | 37850/2580                  | 23.63         | 23.10                | 0.046                        | 0.102            | 1.13           | 0.052        | //       |
| Body-worn SAR (QPSK) |            |        |          |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Back Side            | standard   | off    | 15mm     | 1:1.58     | 1             | 99        | 37850/2580                  | 23.63         | 23.10                | 0.218                        | 0.096            | 1.13           | 0.246        | /        |
| Front Side           | standard   | off    | 15mm     | 1:1.58     | 1             | 99        | 37850/2580                  | 23.63         | 23.10                | 0.118                        | 0.109            | 1.13           | 0.190        | /        |
| Back Side            | standard   | off    | 15mm     | 1:1.58     | 50%           | 0         | 38150/2610                  | 22.63         | 21.88                | 0.110                        | 0.136            | 1.19           | 0.185        | /        |
| Front Side           | standard   | off    | 15mm     | 1:1.58     | 50%           | 0         | 38150/2610                  | 22.63         | 21.88                | 0.087                        | 0.026            | 1.19           | 0.127        | /        |
| Back Side            | standard   | off    | 15mm     | 1:1.58     | 1             | 99        | 37850/2580(PCC)             | 23.63         | 22.99                | 0.146                        | 0.043            | 1.16           | 0.169        | /        |
|                      |            |        |          |            | 1             | 0         | 38048/2599.8(SCC)           |               |                      |                              |                  |                |              |          |
| Back Side            | Battery2   | off    | 15mm     | 1:1.58     | 1             | 50        | 38150/2610                  | 21.63         | 20.85                | 0.131                        | 0.022            | 1.20           | 0.157        | /        |
| Hotspot SAR(QPSK)    |            |        |          |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Back Side            | standard   | off    | 10mm     | 1:1.58     | 1             | 50        | 38150/2610                  | 21.63         | 20.85                | 0.189                        | 0.068            | 1.20           | 0.226        | /        |
| Front Side           | standard   | off    | 10mm     | 1:1.58     | 1             | 50        | 38150/2610                  | 21.63         | 20.85                | 0.150                        | 0.087            | 1.20           | 0.180        | /        |
| Left Edge            | standard   | off    | 10mm     | 1:1.58     | 1             | 50        | 38150/2610                  | 21.63         | 20.85                | 0.057                        | 0.098            | 1.20           | 0.068        | /        |
| Right Edge           | standard   | off    | 10mm     | 1:1.58     | 1             | 50        | 38150/2610                  | 21.63         | 20.85                | 0.051                        | 0.032            | 1.20           | 0.061        | /        |
| Top Edge             | N/A        | N/A    | N/A      | N/A        | N/A           | N/A       | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Bottom Edge          | standard   | off    | 10mm     | 1:1.58     | 1             | 50        | 38150/2610                  | 21.63         | 20.85                | 0.224                        | 0.070            | 1.20           | 0.268        | /        |
| Back Side            | standard   | off    | 10mm     | 1:1.58     | 50%           | 50        | 37850/2580                  | 21.63         | 20.82                | 0.190                        | 0.091            | 1.21           | 0.229        | /        |
| Front Side           | standard   | off    | 10mm     | 1:1.58     | 50%           | 50        | 37850/2580                  | 21.63         | 20.82                | 0.147                        | 0.089            | 1.21           | 0.177        | /        |
| Left Edge            | standard   | off    | 10mm     | 1:1.58     | 50%           | 50        | 37850/2580                  | 21.63         | 20.82                | 0.071                        | 0.066            | 1.21           | 0.086        | /        |
| Right Edge           | standard   | off    | 10mm     | 1:1.58     | 50%           | 50        | 37850/2580                  | 21.63         | 20.82                | 0.072                        | 0.081            | 1.21           | 0.087        | /        |

|             |          |     |      |        |     |     |                   |       |       |       |        |      |       |     |
|-------------|----------|-----|------|--------|-----|-----|-------------------|-------|-------|-------|--------|------|-------|-----|
| Top Edge    | N/A      | N/A | N/A  | N/A    | N/A | N/A | N/A               | N/A   | N/A   | N/A   | N/A    | N/A  | N/A   | N/A |
| Bottom Edge | standard | off | 10mm | 1:1.58 | 50% | 50  | 37850/2580        | 21.63 | 20.82 | 0.218 | 0.053  | 1.21 | 0.263 | /   |
| Bottom Edge | standard | off | 10mm | 1:1.58 | 1   | 99  | 37850/2580(PCC)   | 21.63 | 19.67 | 0.143 | 0.054  | 1.57 | 0.225 | /   |
|             |          |     |      |        | 1   | 0   | 38048/2599.8(SCC) |       |       |       |        |      |       |     |
| Bottom Edge | Battery2 | off | 10mm | 1:1.58 | 1   | 50  | 38150/2610        | 21.63 | 20.85 | 0.168 | -0.056 | 1.20 | 0.201 | /   |

Note: 1. The value with blue color is the maximum SAR Value of each test band.

2. For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are  $\geq$  50% limit(10g).

| MAX Adjusted SAR |            |        |          |            |               |           |                         |                  |             |                     |                |                                |         |
|------------------|------------|--------|----------|------------|---------------|-----------|-------------------------|------------------|-------------|---------------------|----------------|--------------------------------|---------|
| Test Position    | Cover Type | Sensor | Distance | Duty Cycle | RB allocation | RB offset | Channel/Frequency (MHz) | Full power (dBm) | Tune-up dBm | Report SAR1g (mW/g) | Scaling Factor | Full power Report SAR1g (mW/g) | 0mm SAR |
| Back Side        | standard   | off    | 10mm     | 1:1.58     | 1             | 50        | 38150/2610              | 23.63            | 21.63       | 0.226               | 1.58           | 0.358                          | No      |
| Front Side       | standard   | off    | 10mm     | 1:1.58     | 1             | 50        | 38150/2610              | 23.63            | 21.63       | 0.180               | 1.58           | 0.285                          | No      |
| Left Edge        | standard   | off    | 10mm     | 1:1.58     | 1             | 50        | 38150/2610              | 23.63            | 21.63       | 0.068               | 1.58           | 0.108                          | No      |
| Right Edge       | standard   | off    | 10mm     | 1:1.58     | 1             | 50        | 38150/2610              | 23.63            | 21.63       | 0.061               | 1.58           | 0.097                          | No      |
| Top Edge         | N/A        | N/A    | N/A      | N/A        | N/A           | N/A       | N/A                     | 23.63            | N/A         | N/A                 | N/A            | N/A                            | N/A     |
| Bottom Edge      | standard   | off    | 10mm     | 1:1.58     | 1             | 50        | 38150/2610              | 23.63            | 21.63       | 0.268               | 1.58           | 0.425                          | No      |
| Back Side        | standard   | off    | 10mm     | 1:1.58     | 50%           | 50        | 37850/2580              | 23.63            | 21.63       | 0.229               | 1.58           | 0.363                          | No      |
| Front Side       | standard   | off    | 10mm     | 1:1.58     | 50%           | 50        | 37850/2580              | 23.63            | 21.63       | 0.177               | 1.58           | 0.281                          | No      |
| Left Edge        | standard   | off    | 10mm     | 1:1.58     | 50%           | 50        | 37850/2580              | 23.63            | 21.63       | 0.086               | 1.58           | 0.136                          | No      |
| Right Edge       | standard   | off    | 10mm     | 1:1.58     | 50%           | 50        | 37850/2580              | 23.63            | 21.63       | 0.087               | 1.58           | 0.138                          | No      |
| Top Edge         | N/A        | N/A    | N/A      | N/A        | N/A           | N/A       | N/A                     | 23.63            | N/A         | N/A                 | N/A            | N/A                            | N/A     |
| Bottom Edge      | standard   | off    | 10mm     | 1:1.58     | 50%           | 50        | 37850/2580              | 23.63            | 21.63       | 0.263               | 1.58           | 0.417                          | No      |
| Bottom Edge      | standard   | off    | 10mm     | 1:1.58     | 1             | 99        | 37850/2580(PCC)         | 23.63            | 21.63       | 0.225               | 1.58           | 0.357                          | No      |
|                  |            |        |          |            | 1             | 0         | 38048/2599.8(SCC)       |                  |             |                     |                |                                |         |
| Bottom Edge      | Battery2   | off    | 10mm     | 1:1.58     | 1             | 50        | 38150/2610              | 23.63            | 21.63       | 0.201               | 1.58           | 0.319                          | No      |

Note: According to 648474 D04 Handset SAR v01r03, For Phablet, Since hotspot mode 1-greported SAR < 1.2 W/kg, Product Specific 10-g SAR is not required.

**Variant**

| Test Position                                                                 | Cover Type | Sensor | Distance | Duty Cycle | RB allocation | RB offset | Channel/ Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No |
|-------------------------------------------------------------------------------|------------|--------|----------|------------|---------------|-----------|--------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|---------|
|                                                                               |            |        |          |            |               |           |                          |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |         |
| Head SAR (QPSK)                                                               |            |        |          |            |               |           |                          |               |                      |                              |                  |                |              |         |
| Right Cheek                                                                   | standard   | off    | 0mm      | 1:1.58     | 1             | 99        | 37850/2580               | 23.63         | 23.10                | 0.070                        | 0.118            | 1.13           | 0.079        | 55      |
| Right Cheek                                                                   | SIM2       | off    | 0mm      | 1:1.58     | 1             | 99        | 37850/2580               | 23.63         | 23.10                | 0.059                        | 0.024            | 1.13           | 0.067        | /       |
| Body-worn SAR (QPSK)                                                          |            |        |          |            |               |           |                          |               |                      |                              |                  |                |              |         |
| Back Side                                                                     | standard   | off    | 15mm     | 1:1.58     | 1             | 99        | 37850/2580               | 23.63         | 23.10                | 0.163                        | 0.071            | 1.13           | 0.184        | 56      |
| Back Side                                                                     | SIM2       | off    | 15mm     | 1:1.58     | 1             | 99        | 37850/2580               | 23.63         | 23.10                | 0.139                        | -0.100           | 1.13           | 0.157        | /       |
| Hotspot SAR(QPSK)                                                             |            |        |          |            |               |           |                          |               |                      |                              |                  |                |              |         |
| Bottom Edge                                                                   | standard   | off    | 10mm     | 1:1.58     | 1             | 50        | 38150/2610               | 21.63         | 20.85                | 0.216                        | -0.028           | 1.20           | 0.258        | 57      |
| Bottom Edge                                                                   | SIM2       | off    | 10mm     | 1:1.58     | 1             | 50        | 38150/2610               | 21.63         | 20.85                | 0.199                        | 0.096            | 1.20           | 0.238        | /       |
| Note: 1.The value with blue color is the maximum SAR Value of each test band. |            |        |          |            |               |           |                          |               |                      |                              |                  |                |              |         |

**Table 22: LTE Band 41 (20MHz, Main-antenna)**
**Original**

| Test Position        | Cover Type | Sensor | Distance | Duty Cycle | RB allocation | RB offset | Channel/<br>Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|----------------------|------------|--------|----------|------------|---------------|-----------|-----------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|                      |            |        |          |            |               |           |                             |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR (QPSK)      |            |        |          |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Left Cheek           | standard   | off    | 0mm      | 1:1.58     | 1             | 0         | 40620/2593                  | 23.63         | 23.17                | 0.037                        | 0.134            | 1.11           | 0.041        | /        |
| Left Tilt            | standard   | off    | 0mm      | 1:1.58     | 1             | 0         | 40620/2593                  | 23.63         | 23.17                | 0.012                        | -0.034           | 1.11           | 0.013        | /        |
| Right Cheek          | standard   | off    | 0mm      | 1:1.58     | 1             | 0         | 40620/2593                  | 23.63         | 23.17                | 0.067                        | 0.024            | 1.11           | 0.075        | /        |
| Right Tilt           | standard   | off    | 0mm      | 1:1.58     | 1             | 0         | 40620/2593                  | 23.63         | 23.17                | 0.023                        | 0.072            | 1.11           | 0.026        | /        |
| Left Cheek           | standard   | off    | 0mm      | 1:1.58     | 50%           | 50        | 40185/2549.5                | 22.63         | 22.06                | 0.028                        | 0.144            | 1.14           | 0.032        | /        |
| Left Tilt            | standard   | off    | 0mm      | 1:1.58     | 50%           | 50        | 40185/2549.5                | 22.63         | 22.06                | 0.035                        | 0.041            | 1.14           | 0.039        | /        |
| Right Cheek          | standard   | off    | 0mm      | 1:1.58     | 50%           | 50        | 40185/2549.5                | 22.63         | 22.06                | 0.054                        | 0.030            | 1.14           | 0.062        | /        |
| Right Tilt           | standard   | off    | 0mm      | 1:1.58     | 50%           | 50        | 40185/2549.5                | 22.63         | 22.06                | 0.019                        | 0.021            | 1.14           | 0.021        | /        |
| Right Cheek          | standard   | off    | 0mm      | 1:1.58     | 1             | 99        | 40140/2545(PCC)             | 22.63         | 21.57                | 0.056                        | 0.042            | 1.28           | 0.071        | /        |
|                      |            |        |          |            | 1             | 0         | 40338/2564.8(SCC)           |               |                      |                              |                  |                |              |          |
| Right Cheek          | Battery2   | off    | 0mm      | 1:1.58     | 1             | 0         | 40620/2593                  | 23.63         | 23.17                | 0.053                        | 0.028            | 1.11           | 0.059        | /        |
| Body-worn SAR (QPSK) |            |        |          |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Back Side            | standard   | off    | 15mm     | 1:1.58     | 1             | 0         | 40620/2593                  | 23.63         | 23.17                | 0.156                        | 0.084            | 1.11           | 0.173        | /        |
| Front Side           | standard   | off    | 15mm     | 1:1.58     | 1             | 0         | 40620/2593                  | 23.63         | 23.17                | 0.113                        | 0.024            | 1.11           | 0.126        | /        |
| Back Side            | standard   | off    | 15mm     | 1:1.58     | 50%           | 50        | 40185/2549.5                | 22.63         | 22.06                | 0.117                        | 0.034            | 1.14           | 0.133        | /        |
| Front Side           | standard   | off    | 15mm     | 1:1.58     | 50%           | 50        | 40185/2549.5                | 22.63         | 22.06                | 0.089                        | 0.126            | 1.14           | 0.101        | /        |
| Back Side            | standard   | off    | 15mm     | 1:1.58     | 1             | 99        | 40140/2545(PCC)             | 22.63         | 21.57                | 0.139                        | 0.032            | 1.28           | 0.177        | /        |
|                      |            |        |          |            | 1             | 0         | 40338/2564.8(SCC)           |               |                      |                              |                  |                |              |          |
| Back Side            | Battery2   | off    | 15mm     | 1:1.58     | 1             | 0         | 40620/2593                  | 23.63         | 23.17                | 0.155                        | 0.013            | 1.11           | 0.172        | /        |
| Hotspot SAR(QPSK)    |            |        |          |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Back Side            | standard   | off    | 10mm     | 1:1.58     | 1             | 99        | 41055/2636.5                | 22.13         | 21.28                | 0.214                        | 0.107            | 1.22           | 0.260        | /        |
| Front Side           | standard   | off    | 10mm     | 1:1.58     | 1             | 99        | 41055/2636.5                | 22.13         | 21.28                | 0.165                        | 0.135            | 1.22           | 0.201        | /        |
| Left Edge            | standard   | off    | 10mm     | 1:1.58     | 1             | 99        | 41055/2636.5                | 22.13         | 21.28                | 0.078                        | 0.180            | 1.22           | 0.095        | /        |
| Right Edge           | standard   | off    | 10mm     | 1:1.58     | 1             | 99        | 41055/2636.5                | 22.13         | 21.28                | 0.081                        | 0.170            | 1.22           | 0.099        | /        |
| Top Edge             | N/A        | N/A    | N/A      | N/A        | N/A           | N/A       | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Bottom Edge          | standard   | off    | 10mm     | 1:1.58     | 1             | 99        | 41055/2636.5                | 22.13         | 21.28                | 0.355                        | 0.160            | 1.22           | 0.432        | /        |
| Back Side            | standard   | off    | 10mm     | 1:1.58     | 50%           | 50        | 40185/2549.5                | 22.13         | 21.27                | 0.204                        | -0.140           | 1.22           | 0.249        | /        |
| Front Side           | standard   | off    | 10mm     | 1:1.58     | 50%           | 50        | 40185/2549.5                | 22.13         | 21.27                | 0.156                        | 0.087            | 1.22           | 0.190        | /        |
| Left Edge            | standard   | off    | 10mm     | 1:1.58     | 50%           | 50        | 40185/2549.5                | 22.13         | 21.27                | 0.067                        | 0.090            | 1.22           | 0.082        | /        |
| Right Edge           | standard   | off    | 10mm     | 1:1.58     | 50%           | 50        | 40185/2549.5                | 22.13         | 21.27                | 0.071                        | 0.080            | 1.22           | 0.087        | /        |

|             |          |     |      |        |     |     |                   |       |       |       |        |      |       |     |
|-------------|----------|-----|------|--------|-----|-----|-------------------|-------|-------|-------|--------|------|-------|-----|
| Top Edge    | N/A      | N/A | N/A  | N/A    | N/A | N/A | N/A               | N/A   | N/A   | N/A   | N/A    | N/A  | N/A   | N/A |
| Bottom Edge | standard | off | 10mm | 1:1.58 | 50% | 50  | 40185/2549.5      | 22.13 | 21.27 | 0.321 | 0.140  | 1.22 | 0.391 | /   |
| Bottom Edge | standard | off | 10mm | 1:1.58 | 1   | 99  | 40140/2545(PCC)   | 21.13 | 20.20 | 0.267 | 0.060  | 1.24 | 0.331 | /   |
|             |          |     |      |        | 1   | 0   | 40338/2564.8(SCC) |       |       |       |        |      |       |     |
| Bottom Edge | Battery2 | off | 10mm | 1:1.58 | 1   | 99  | 41055/2636.5      | 22.13 | 21.28 | 0.310 | -0.046 | 1.22 | 0.377 | /   |

Note: 1. The value with blue color is the maximum SAR Value of each test band.

2. For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are  $\geq$  50% limit(10g).

| MAX Adjusted SAR |            |        |          |            |               |           |                         |                  |             |                     |                |                                |         |
|------------------|------------|--------|----------|------------|---------------|-----------|-------------------------|------------------|-------------|---------------------|----------------|--------------------------------|---------|
| Test Position    | Cover Type | Sensor | Distance | Duty Cycle | RB allocation | RB offset | Channel/Frequency (MHz) | Full power (dBm) | Tune-up dBm | Report SAR1g (mW/g) | Scaling Factor | Full power Report SAR1g (mW/g) | 0mm SAR |
| Back Side        | standard   | off    | 10mm     | 1:1.58     | 1             | 99        | 41055/2636.5            | 23.63            | 22.13       | 0.260               | 1.41           | 0.367                          | No      |
| Front Side       | standard   | off    | 10mm     | 1:1.58     | 1             | 99        | 41055/2636.5            | 23.63            | 22.13       | 0.201               | 1.41           | 0.284                          | No      |
| Left Edge        | standard   | off    | 10mm     | 1:1.58     | 1             | 99        | 41055/2636.5            | 23.63            | 22.13       | 0.095               | 1.41           | 0.134                          | No      |
| Right Edge       | standard   | off    | 10mm     | 1:1.58     | 1             | 99        | 41055/2636.5            | 23.63            | 22.13       | 0.099               | 1.41           | 0.140                          | No      |
| Top Edge         | N/A        | N/A    | N/A      | N/A        | N/A           | N/A       | N/A                     | 23.63            | N/A         | N/A                 | N/A            | N/A                            | N/A     |
| Bottom Edge      | standard   | off    | 10mm     | 1:1.58     | 1             | 99        | 41055/2636.5            | 23.63            | 22.13       | 0.432               | 1.41           | 0.610                          | No      |
| Back Side        | standard   | off    | 10mm     | 1:1.58     | 50%           | 50        | 40185/2549.5            | 23.63            | 22.13       | 0.249               | 1.41           | 0.352                          | No      |
| Front Side       | standard   | off    | 10mm     | 1:1.58     | 50%           | 50        | 40185/2549.5            | 23.63            | 22.13       | 0.190               | 1.41           | 0.268                          | No      |
| Left Edge        | standard   | off    | 10mm     | 1:1.58     | 50%           | 50        | 40185/2549.5            | 23.63            | 22.13       | 0.082               | 1.41           | 0.116                          | No      |
| Right Edge       | standard   | off    | 10mm     | 1:1.58     | 50%           | 50        | 40185/2549.5            | 23.63            | 22.13       | 0.087               | 1.41           | 0.123                          | No      |
| Top Edge         | N/A        | N/A    | N/A      | N/A        | N/A           | N/A       | N/A                     | 23.63            | N/A         | N/A                 | N/A            | N/A                            | N/A     |
| Bottom Edge      | standard   | off    | 10mm     | 1:1.58     | 50%           | 50        | 40185/2549.5            | 23.63            | 22.13       | 0.391               | 1.41           | 0.552                          | No      |
| Bottom Edge      | standard   | off    | 10mm     | 1:1.58     | 1             | 99        | 40140/2545(PCC)         | 23.63            | 21.13       | 0.331               | 1.78           | 0.589                          | No      |
|                  |            |        |          |            | 1             | 0         | 40338/2564.8(SCC)       |                  |             |                     |                |                                |         |
| Bottom Edge      | Battery2   | off    | 10mm     | 1:1.58     | 1             | 99        | 41055/2636.5            | 23.63            | 22.13       | 0.377               | 1.41           | 0.533                          | No      |

Note: According to 648474 D04 Handset SAR v01r03, For Phablet, Since hotspot mode 1-reported SAR < 1.2 W/kg, Product Specific 10-g SAR is not required.

**Variant**

| Test Position                                                                  | Cover Type | Sensor | Distance | Duty Cycle | RB allocation | RB offset | Channel/ Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|--------------------------------------------------------------------------------|------------|--------|----------|------------|---------------|-----------|--------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|                                                                                |            |        |          |            |               |           |                          |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR (QPSK)                                                                |            |        |          |            |               |           |                          |               |                      |                              |                  |                |              |          |
| Right Cheek                                                                    | standard   | off    | 0mm      | 1:1.58     | 1             | 0         | 40620/2593               | 23.63         | 23.17                | 0.071                        | 0.027            | 1.11           | 0.079        | 58       |
| Right Cheek                                                                    | SIM2       | off    | 0mm      | 1:1.58     | 1             | 0         | 40620/2593               | 23.63         | 23.17                | 0.061                        | 0.069            | 1.11           | 0.068        | /        |
| Body-worn SAR (QPSK)                                                           |            |        |          |            |               |           |                          |               |                      |                              |                  |                |              |          |
| Back Side                                                                      | standard   | off    | 15mm     | 1:1.58     | 1             | 99        | 40140/2545(PCC)          | 23.63         | 23.17                | 0.164                        | 0.064            | 1.11           | 0.182        | 59       |
|                                                                                |            |        |          |            | 1             | 0         | 40338/2564.8(SCC)        |               |                      |                              |                  |                |              |          |
| Back Side                                                                      | SIM2       | off    | 15mm     | 1:1.58     | 1             | 99        | 40140/2545(PCC)          | 23.63         | 23.17                | 0.152                        | 0.180            | 1.11           | 0.169        | /        |
|                                                                                |            |        |          |            | 1             | 0         | 40338/2564.8(SCC)        |               |                      |                              |                  |                |              |          |
| Hotspot SAR(QPSK)                                                              |            |        |          |            |               |           |                          |               |                      |                              |                  |                |              |          |
| Bottom Edge                                                                    | standard   | off    | 10mm     | 1:1.58     | 1             | 99        | 41055/2636.5             | 22.13         | 21.28                | 0.373                        | -0.130           | 1.22           | 0.454        | 60       |
| Bottom Edge                                                                    | SIM2       | off    | 10mm     | 1:1.58     | 1             | 99        | 41055/2636.5             | 22.13         | 21.28                | 0.322                        | 0.021            | 1.22           | 0.392        | /        |
| Note: 1. The value with blue color is the maximum SAR Value of each test band. |            |        |          |            |               |           |                          |               |                      |                              |                  |                |              |          |

**Table 23: GSM 850 (Second-antenna)**
**Original**

| Test Position                                                                                                                                                                                             | Cover Type | Time slot | Duty Cycle | Channel/<br>Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----------|------------|-----------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|                                                                                                                                                                                                           |            |           |            |                             |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR                                                                                                                                                                                                  |            |           |            |                             |               |                      |                              |                  |                |              |          |
| Left Cheek                                                                                                                                                                                                | standard   | GSM       | 1:8.3      | 190/836.6                   | 28.30         | 27.12                | 0.407                        | 0.104            | 1.31           | 0.534        | /        |
| Left Tilt                                                                                                                                                                                                 | standard   | GSM       | 1:8.3      | 190/836.6                   | 28.30         | 27.12                | 0.357                        | 0.090            | 1.31           | 0.468        | /        |
| Right Cheek                                                                                                                                                                                               | standard   | GSM       | 1:8.3      | 190/836.6                   | 28.30         | 27.12                | 0.351                        | 0.040            | 1.31           | 0.461        | /        |
| Right Tilt                                                                                                                                                                                                | standard   | GSM       | 1:8.3      | 190/836.6                   | 28.30         | 27.12                | 0.376                        | -0.030           | 1.31           | 0.493        | /        |
| Left Cheek                                                                                                                                                                                                | Battery2   | GSM       | 1:8.3      | 190/836.6                   | 28.30         | 27.12                | 0.398                        | 0.083            | 1.31           | 0.522        | /        |
| Body-worn SAR (Distance 15mm)                                                                                                                                                                             |            |           |            |                             |               |                      |                              |                  |                |              |          |
| Back Side                                                                                                                                                                                                 | standard   | GSM       | 1:8.3      | 190/836.6                   | 33.30         | 32.09                | 0.123                        | -0.090           | 1.32           | 0.163        | /        |
| Front Side                                                                                                                                                                                                | standard   | GSM       | 1:8.3      | 190/836.6                   | 33.30         | 32.09                | 0.135                        | 0.080            | 1.32           | 0.178        | /        |
| Front Side                                                                                                                                                                                                | Battery2   | GSM       | 1:8.3      | 190/836.6                   | 33.30         | 32.09                | 0.131                        | 0.076            | 1.32           | 0.173        | /        |
| Hotspot SAR(Distance 10mm)                                                                                                                                                                                |            |           |            |                             |               |                      |                              |                  |                |              |          |
| Back Side                                                                                                                                                                                                 | standard   | 2Txslots  | 1:4.15     | 190/836.6                   | 31.30         | 29.74                | 0.269                        | -0.010           | 1.43           | 0.385        | /        |
| Front Side                                                                                                                                                                                                | standard   | 2Txslots  | 1:4.15     | 190/836.6                   | 31.30         | 29.74                | 0.272                        | -0.050           | 1.43           | 0.390        | /        |
| Left Edge                                                                                                                                                                                                 | standard   | 2Txslots  | 1:4.15     | 190/836.6                   | 31.30         | 29.74                | 0.083                        | 0.060            | 1.43           | 0.119        | /        |
| Right Edge                                                                                                                                                                                                | standard   | 2Txslots  | 1:4.15     | 190/836.6                   | 31.30         | 29.74                | 0.015                        | 0.026            | 1.43           | 0.021        | /        |
| Top Edge                                                                                                                                                                                                  | standard   | 2Txslots  | 1:4.15     | 190/836.6                   | 31.30         | 29.74                | 0.164                        | 0.050            | 1.43           | 0.235        | /        |
| Bottom Edge                                                                                                                                                                                               | N/A        | N/A       | N/A        | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Front Side                                                                                                                                                                                                | Battery2   | 2Txslots  | 1:4.15     | 190/836.6                   | 31.30         | 29.74                | 0.266                        | -0.073           | 1.43           | 0.381        | /        |
| Note: 1.The value with blue color is the maximum SAR Value of each test band.<br>2.When multiple slots are used, SAR should be tested to account for the maximum source-based time-averaged output power. |            |           |            |                             |               |                      |                              |                  |                |              |          |

**Variant**

| Test Position                                                                 | Cover Type | Time slot | Duty Cycle | Channel/ Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No |
|-------------------------------------------------------------------------------|------------|-----------|------------|--------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|---------|
|                                                                               |            |           |            |                          |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |         |
| Head SAR                                                                      |            |           |            |                          |               |                      |                              |                  |                |              |         |
| Left Cheek                                                                    | standard   | GSM       | 1:8.3      | 190/836.6                | 28.30         | 27.12                | 0.351                        | 0.022            | 1.31           | 0.461        | 61      |
| Left Cheek                                                                    | SIM2       | GSM       | 1:8.3      | 190/836.6                | 28.30         | 27.12                | 0.345                        | 0.028            | 1.31           | 0.453        | /       |
| Body-worn SAR (Distance 15mm)                                                 |            |           |            |                          |               |                      |                              |                  |                |              |         |
| Front Side                                                                    | standard   | GSM       | 1:8.3      | 190/836.6                | 33.30         | 32.09                | 0.070                        | 0.053            | 1.32           | 0.093        | 62      |
| Front Side                                                                    | SIM2       | GSM       | 1:8.3      | 190/836.6                | 33.30         | 32.09                | 0.056                        | 0.010            | 1.32           | 0.074        | /       |
| Hotspot SAR(Distance 10mm)                                                    |            |           |            |                          |               |                      |                              |                  |                |              |         |
| Front Side                                                                    | standard   | 2Txslots  | 1:4.15     | 190/836.6                | 31.30         | 29.74                | 0.256                        | 0.060            | 1.43           | 0.367        | 63      |
| Front Side                                                                    | SIM2       | 2Txslots  | 1:4.15     | 190/836.6                | 31.30         | 29.74                | 0.218                        | -0.034           | 1.43           | 0.312        | /       |
| Note: 1.The value with blue color is the maximum SAR Value of each test band. |            |           |            |                          |               |                      |                              |                  |                |              |         |



**Table 24: GSM 1900(Second-antenna)**
**Original**

| Test Position                                                                                                            | Cover Type | Time slot | Duty Cycle | Channel/<br>Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|--------------------------------------------------------------------------------------------------------------------------|------------|-----------|------------|-----------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|                                                                                                                          |            |           |            |                             |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR                                                                                                                 |            |           |            |                             |               |                      |                              |                  |                |              |          |
| Left Cheek                                                                                                               | standard   | GSM       | 1:8.3      | 661/1880                    | 27.30         | 26.03                | 0.167                        | 0.164            | 1.34           | 0.224        | /        |
| Left Tilt                                                                                                                | standard   | GSM       | 1:8.3      | 661/1880                    | 27.30         | 26.03                | 0.223                        | 0.110            | 1.34           | 0.299        | /        |
| Right Cheek                                                                                                              | standard   | GSM       | 1:8.3      | 661/1880                    | 27.30         | 26.03                | 0.241                        | -0.020           | 1.34           | 0.323        | /        |
| Right Tilt                                                                                                               | standard   | GSM       | 1:8.3      | 661/1880                    | 27.30         | 26.03                | 0.367                        | 0.170            | 1.34           | 0.492        | /        |
| Right Tilt                                                                                                               | Battery2   | GSM       | 1:8.3      | 661/1880                    | 27.30         | 26.03                | 0.349                        | 0.152            | 1.34           | 0.468        | /        |
| Body-worn SAR (Distance 15mm)                                                                                            |            |           |            |                             |               |                      |                              |                  |                |              |          |
| Back Side                                                                                                                | standard   | GSM       | 1:8.3      | 661/1880                    | 30.80         | 29.67                | 0.056                        | 0.180            | 1.30           | 0.073        | /        |
| Front Side                                                                                                               | standard   | GSM       | 1:8.3      | 661/1880                    | 30.80         | 29.67                | 0.061                        | 0.120            | 1.30           | 0.078        | /        |
| Front Side                                                                                                               | Battery2   | GSM       | 1:8.3      | 661/1880                    | 30.80         | 29.67                | 0.052                        | 0.090            | 1.30           | 0.067        | /        |
| Hotspot SAR(Distance 10mm)                                                                                               |            |           |            |                             |               |                      |                              |                  |                |              |          |
| Back Side                                                                                                                | standard   | 2Txslots  | 1:4.15     | 661/1880                    | 28.80         | 27.54                | 0.226                        | 0.090            | 1.34           | 0.302        | /        |
| Front Side                                                                                                               | standard   | 2Txslots  | 1:4.15     | 661/1880                    | 28.80         | 27.54                | 0.244                        | -0.040           | 1.34           | 0.326        | /        |
| Left Edge                                                                                                                | standard   | 2Txslots  | 1:4.15     | 661/1880                    | 28.80         | 27.54                | 0.037                        | -0.020           | 1.34           | 0.050        | /        |
| Right Edge                                                                                                               | standard   | 2Txslots  | 1:4.15     | 661/1880                    | 28.80         | 27.54                | 0.042                        | -0.060           | 1.34           | 0.056        | /        |
| Top Edge                                                                                                                 | standard   | 2Txslots  | 1:4.15     | 661/1880                    | 28.80         | 27.54                | 0.497                        | -0.021           | 1.34           | 0.664        | /        |
| Bottom Edge                                                                                                              | N/A        | N/A       | N/A        | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Top Edge                                                                                                                 | Battery2   | 2Txslots  | 1:4.15     | 661/1880                    | 28.80         | 27.54                | 0.452                        | -0.060           | 1.34           | 0.604        | /        |
| Note: 1.The value with blue color is the maximum SAR Value of each test band.                                            |            |           |            |                             |               |                      |                              |                  |                |              |          |
| 2.When multiple slots are used, SAR should be tested to account for the maximum source-based time-averaged output power. |            |           |            |                             |               |                      |                              |                  |                |              |          |

**Variant**

| Test Position                                                                 | Cover Type | Time slot | Duty Cycle | Channel/<br>Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No |
|-------------------------------------------------------------------------------|------------|-----------|------------|-----------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|---------|
|                                                                               |            |           |            |                             |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |         |
| Head SAR                                                                      |            |           |            |                             |               |                      |                              |                  |                |              |         |
| Right Tilt                                                                    | standard   | GSM       | 1:8.3      | 661/1880                    | 27.30         | 26.03                | 0.375                        | -0.010           | 1.34           | 0.502        | 64      |
| Right Tilt                                                                    | SIM2       | GSM       | 1:8.3      | 661/1880                    | 27.30         | 26.03                | 0.332                        | -0.068           | 1.34           | 0.445        | /       |
| Body-worn SAR (Distance 15mm)                                                 |            |           |            |                             |               |                      |                              |                  |                |              |         |
| Front Side                                                                    | standard   | GSM       | 1:8.3      | 661/1880                    | 30.80         | 29.67                | 0.065                        | -0.110           | 1.30           | 0.084        | 65      |
| Front Side                                                                    | SIM2       | GSM       | 1:8.3      | 661/1880                    | 30.80         | 29.67                | 0.055                        | 0.036            | 1.30           | 0.071        | /       |
| Hotspot SAR(Distance 10mm)                                                    |            |           |            |                             |               |                      |                              |                  |                |              |         |
| Top Edge                                                                      | standard   | 2Txslots  | 1:4.15     | 661/1880                    | 28.80         | 27.54                | 0.546                        | 0.021            | 1.34           | 0.730        | 66      |
| Top Edge                                                                      | SIM2       | 2Txslots  | 1:4.15     | 661/1880                    | 28.80         | 27.54                | 0.462                        | 0.038            | 1.34           | 0.618        | /       |
| Note: 1.The value with blue color is the maximum SAR Value of each test band. |            |           |            |                             |               |                      |                              |                  |                |              |         |

**Table 25: UMTS Band II(Second-antenna)**
**Original**

| Test Position                                                                                                                                                                                                                                                                                                                                                                                                 | Cover Type | Channel Type | Duty Cycle | Channel/ Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------|------------|--------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|                                                                                                                                                                                                                                                                                                                                                                                                               |            |              |            |                          |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR                                                                                                                                                                                                                                                                                                                                                                                                      |            |              |            |                          |               |                      |                              |                  |                |              |          |
| Left Cheek                                                                                                                                                                                                                                                                                                                                                                                                    | standard   | RMC 12.2K    | 1:1        | 9400/1880                | 18.00         | 17.02                | 0.334                        | -0.030           | 1.25           | 0.419        | /        |
| Left Tilt                                                                                                                                                                                                                                                                                                                                                                                                     | standard   | RMC 12.2K    | 1:1        | 9400/1880                | 18.00         | 17.02                | 0.565                        | 0.000            | 1.25           | 0.708        | /        |
| Right Cheek                                                                                                                                                                                                                                                                                                                                                                                                   | standard   | RMC 12.2K    | 1:1        | 9400/1880                | 18.00         | 17.02                | 0.418                        | 0.020            | 1.25           | 0.524        | /        |
| Right Tilt                                                                                                                                                                                                                                                                                                                                                                                                    | standard   | RMC 12.2K    | 1:1        | 9400/1880                | 18.00         | 17.02                | 0.495                        | 0.040            | 1.25           | 0.620        | /        |
| Left Tilt                                                                                                                                                                                                                                                                                                                                                                                                     | Battery2   | RMC 12.2K    | 1:1        | 9400/1880                | 18.00         | 17.02                | 0.542                        | 0.015            | 1.25           | 0.679        | /        |
| Body-worn SAR (Distance 15mm)                                                                                                                                                                                                                                                                                                                                                                                 |            |              |            |                          |               |                      |                              |                  |                |              |          |
| Back Side                                                                                                                                                                                                                                                                                                                                                                                                     | standard   | RMC 12.2K    | 1:1        | 9400/1880                | 24.00         | 22.62                | 0.285                        | 0.050            | 1.37           | 0.392        | /        |
| Front Side                                                                                                                                                                                                                                                                                                                                                                                                    | standard   | RMC 12.2K    | 1:1        | 9400/1880                | 24.00         | 22.62                | 0.280                        | -0.090           | 1.37           | 0.385        | /        |
| Back Side                                                                                                                                                                                                                                                                                                                                                                                                     | Battery2   | RMC 12.2K    | 1:1        | 9400/1880                | 24.00         | 22.62                | 0.279                        | 0.047            | 1.37           | 0.383        | /        |
| Hotspot SAR(Distance 10mm)                                                                                                                                                                                                                                                                                                                                                                                    |            |              |            |                          |               |                      |                              |                  |                |              |          |
| Back Side                                                                                                                                                                                                                                                                                                                                                                                                     | standard   | RMC 12.2K    | 1:1        | 9400/1880                | 24.00         | 22.62                | 0.250                        | 0.076            | 1.37           | 0.344        | /        |
| Front Side                                                                                                                                                                                                                                                                                                                                                                                                    | standard   | RMC 12.2K    | 1:1        | 9400/1880                | 24.00         | 22.62                | 0.249                        | 0.010            | 1.37           | 0.342        | /        |
| Left Edge                                                                                                                                                                                                                                                                                                                                                                                                     | standard   | RMC 12.2K    | 1:1        | 9400/1880                | 24.00         | 22.62                | 0.037                        | 0.027            | 1.37           | 0.050        | /        |
| Right Edge                                                                                                                                                                                                                                                                                                                                                                                                    | standard   | RMC 12.2K    | 1:1        | 9400/1880                | 24.00         | 22.62                | 0.054                        | -0.080           | 1.37           | 0.075        | /        |
| Top Edge                                                                                                                                                                                                                                                                                                                                                                                                      | standard   | RMC 12.2K    | 1:1        | 9400/1880                | 24.00         | 22.62                | 0.538                        | -0.170           | 1.37           | 0.739        | /        |
| Bottom Edge                                                                                                                                                                                                                                                                                                                                                                                                   | N/A        | N/A          | N/A        | N/A                      | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Top Edge                                                                                                                                                                                                                                                                                                                                                                                                      | Battery2   | RMC 12.2K    | 1:1        | 9400/1880                | 24.00         | 22.62                | 0.516                        | -0.023           | 1.37           | 0.709        | /        |
| Note: 1.The value with blue color is the maximum SAR Value of each test band.                                                                                                                                                                                                                                                                                                                                 |            |              |            |                          |               |                      |                              |                  |                |              |          |
| 2. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode. |            |              |            |                          |               |                      |                              |                  |                |              |          |

**Variant**

| Test Position                                                                 | Cover Type | Channel Type | Duty Cycle | Channel/ Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No |
|-------------------------------------------------------------------------------|------------|--------------|------------|--------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|---------|
|                                                                               |            |              |            |                          |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |         |
| Head SAR                                                                      |            |              |            |                          |               |                      |                              |                  |                |              |         |
| Left Tilt                                                                     | standard   | RMC 12.2K    | 1:1        | 9400/1880                | 18.00         | 17.02                | 0.462                        | 0.030            | 1.25           | 0.579        | 67      |
| Left Tilt                                                                     | SIM2       | RMC 12.2K    | 1:1        | 9400/1880                | 18.00         | 17.02                | 0.438                        | 0.029            | 1.25           | 0.549        | /       |
| Body-worn SAR (Distance 15mm)                                                 |            |              |            |                          |               |                      |                              |                  |                |              |         |
| Back Side                                                                     | standard   | RMC 12.2K    | 1:1        | 9400/1880                | 24.00         | 22.62                | 0.244                        | 0.140            | 1.37           | 0.335        | 68      |
| Back Side                                                                     | SIM2       | RMC 12.2K    | 1:8.3      | 9400/1880                | 24.00         | 22.62                | 0.240                        | 0.061            | 1.37           | 0.330        | /       |
| Hotspot SAR(Distance 10mm)                                                    |            |              |            |                          |               |                      |                              |                  |                |              |         |
| Top Edge                                                                      | standard   | RMC 12.2K    | 1:1        | 9400/1880                | 24.00         | 22.62                | 0.517                        | 0.090            | 1.37           | 0.710        | 69      |
| Top Edge                                                                      | SIM2       | RMC 12.2K    | 1:8.3      | 9400/1880                | 24.00         | 22.62                | 0.503                        | 0.018            | 1.37           | 0.691        | /       |
| Note: 1.The value with blue color is the maximum SAR Value of each test band. |            |              |            |                          |               |                      |                              |                  |                |              |         |

**Table 26: UMTS Band IV(Second-antenna)**
**Original**

| Test Position                                                                                                                                                                                                                                                                                                                                                                                                 | Cover Type | Channel Type | Duty Cycle | Channel/ Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------|------------|--------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|                                                                                                                                                                                                                                                                                                                                                                                                               |            |              |            |                          |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR                                                                                                                                                                                                                                                                                                                                                                                                      |            |              |            |                          |               |                      |                              |                  |                |              |          |
| Left Cheek                                                                                                                                                                                                                                                                                                                                                                                                    | standard   | RMC 12.2K    | 1:1        | 1413/1732.6              | 17.00         | 15.47                | 0.334                        | -0.030           | 1.42           | 0.475        | /        |
| Left Tilt                                                                                                                                                                                                                                                                                                                                                                                                     | standard   | RMC 12.2K    | 1:1        | 1413/1732.6              | 17.00         | 15.47                | 0.516                        | 0.062            | 1.42           | 0.734        | /        |
| Right Cheek                                                                                                                                                                                                                                                                                                                                                                                                   | standard   | RMC 12.2K    | 1:1        | 1413/1732.6              | 17.00         | 15.47                | 0.374                        | 0.040            | 1.42           | 0.532        | /        |
| Right Tilt                                                                                                                                                                                                                                                                                                                                                                                                    | standard   | RMC 12.2K    | 1:1        | 1413/1732.6              | 17.00         | 15.47                | 0.448                        | 0.150            | 1.42           | 0.637        | /        |
| Left Tilt                                                                                                                                                                                                                                                                                                                                                                                                     | Battery2   | RMC 12.2K    | 1:1        | 1413/1732.6              | 17.00         | 15.47                | 0.498                        | 0.103            | 1.42           | 0.708        | /        |
| Body-worn SAR (Distance 15mm)                                                                                                                                                                                                                                                                                                                                                                                 |            |              |            |                          |               |                      |                              |                  |                |              |          |
| Back Side                                                                                                                                                                                                                                                                                                                                                                                                     | standard   | RMC 12.2K    | 1:1        | 1413/1732.6              | 24.00         | 22.40                | 0.211                        | -0.030           | 1.45           | 0.305        | /        |
| Front Side                                                                                                                                                                                                                                                                                                                                                                                                    | standard   | RMC 12.2K    | 1:1        | 1413/1732.6              | 24.00         | 22.40                | 0.248                        | 0.070            | 1.45           | 0.358        | /        |
| Front Side                                                                                                                                                                                                                                                                                                                                                                                                    | Battery2   | RMC 12.2K    | 1:1        | 1413/1732.6              | 24.00         | 22.40                | 0.237                        | 0.043            | 1.45           | 0.343        | /        |
| Hotspot SAR(Distance 10mm)                                                                                                                                                                                                                                                                                                                                                                                    |            |              |            |                          |               |                      |                              |                  |                |              |          |
| Back Side                                                                                                                                                                                                                                                                                                                                                                                                     | standard   | RMC 12.2K    | 1:1        | 1413/1732.6              | 24.00         | 22.40                | 0.172                        | 0.000            | 1.45           | 0.249        | /        |
| Front Side                                                                                                                                                                                                                                                                                                                                                                                                    | standard   | RMC 12.2K    | 1:1        | 1413/1732.6              | 24.00         | 22.40                | 0.190                        | 0.060            | 1.45           | 0.275        | /        |
| Left Edge                                                                                                                                                                                                                                                                                                                                                                                                     | standard   | RMC 12.2K    | 1:1        | 1413/1732.6              | 24.00         | 22.40                | 0.042                        | 0.090            | 1.45           | 0.060        | /        |
| Right Edge                                                                                                                                                                                                                                                                                                                                                                                                    | standard   | RMC 12.2K    | 1:1        | 1413/1732.6              | 24.00         | 22.40                | 0.023                        | 0.027            | 1.45           | 0.033        | /        |
| Top Edge                                                                                                                                                                                                                                                                                                                                                                                                      | standard   | RMC 12.2K    | 1:1        | 1413/1732.6              | 24.00         | 22.40                | 0.363                        | -0.080           | 1.45           | 0.525        | /        |
| Bottom Edge                                                                                                                                                                                                                                                                                                                                                                                                   | N/A        | N/A          | N/A        | N/A                      | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Top Edge                                                                                                                                                                                                                                                                                                                                                                                                      | Battery2   | RMC 12.2K    | 1:1        | 1413/1732.6              | 24.00         | 22.40                | 0.347                        | 0.068            | 1.45           | 0.502        | /        |
| Note: 1.The value with blue color is the maximum SAR Value of each test band.                                                                                                                                                                                                                                                                                                                                 |            |              |            |                          |               |                      |                              |                  |                |              |          |
| 2. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode. |            |              |            |                          |               |                      |                              |                  |                |              |          |

**Variant**

| Test Position                                                                 | Cover Type | Channel Type | Duty Cycle | Channel/ Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|-------------------------------------------------------------------------------|------------|--------------|------------|--------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|                                                                               |            |              |            |                          |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR                                                                      |            |              |            |                          |               |                      |                              |                  |                |              |          |
| Left Tilt                                                                     | standard   | RMC 12.2K    | 1:1        | 1413/1732.6              | 17.00         | 15.47                | 0.528                        | 0.080            | 1.42           | 0.751        | 70       |
| Left Tilt                                                                     | SIM2       | RMC 12.2K    | 1:1        | 1413/1732.6              | 17.00         | 15.47                | 0.426                        | -0.150           | 1.42           | 0.606        | /        |
| Body-worn SAR (Distance 15mm)                                                 |            |              |            |                          |               |                      |                              |                  |                |              |          |
| Front Side                                                                    | standard   | RMC 12.2K    | 1:1        | 1413/1732.6              | 24.00         | 22.40                | 0.191                        | -0.170           | 1.45           | 0.276        | 71       |
| Front Side                                                                    | SIM2       | RMC 12.2K    | 1:8.3      | 1413/1732.6              | 24.00         | 22.40                | 0.120                        | -0.054           | 1.45           | 0.173        | /        |
| Hotspot SAR(Distance 10mm)                                                    |            |              |            |                          |               |                      |                              |                  |                |              |          |
| Top Edge                                                                      | standard   | RMC 12.2K    | 1:1        | 1413/1732.6              | 24.00         | 22.40                | 0.393                        | 0.170            | 1.45           | 0.568        | 72       |
| Top Edge                                                                      | SIM2       | RMC 12.2K    | 1:8.3      | 1413/1732.6              | 24.00         | 22.40                | 0.385                        | 0.037            | 1.45           | 0.556        | /        |
| Note: 1.The value with blue color is the maximum SAR Value of each test band. |            |              |            |                          |               |                      |                              |                  |                |              |          |

**Table 27: UMTS Band V(Second-antenna)**
**Original**

| Test Position                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Cover Type | Channel Type | Duty Cycle | Channel/ Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------|------------|--------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            |              |            |                          |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |              |            |                          |               |                      |                              |                  |                |              |          |
| Left Cheek                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | standard   | RMC 12.2K    | 1:1        | 4183/836.6               | 19.00         | 17.57                | 0.298                        | 0.080            | 1.39           | 0.414        | /        |
| Left Tilt                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | standard   | RMC 12.2K    | 1:1        | 4183/836.6               | 19.00         | 17.57                | 0.297                        | 0.045            | 1.39           | 0.413        | /        |
| Right Cheek                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | standard   | RMC 12.2K    | 1:1        | 4183/836.6               | 19.00         | 17.57                | 0.334                        | 0.030            | 1.39           | 0.464        | /        |
| Right Tilt                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | standard   | RMC 12.2K    | 1:1        | 4183/836.6               | 19.00         | 17.57                | 0.378                        | -0.025           | 1.39           | 0.525        | /        |
| Right Tilt                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Battery2   | RMC 12.2K    | 1:1        | 4183/836.6               | 19.00         | 17.57                | 0.362                        | 0.028            | 1.39           | 0.503        | /        |
| Body-worn SAR (Distance 15mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |              |            |                          |               |                      |                              |                  |                |              |          |
| Back Side                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | standard   | RMC 12.2K    | 1:1        | 4183/836.6               | 25.00         | 23.54                | 0.189                        | -0.140           | 1.40           | 0.265        | /        |
| Front Side                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | standard   | RMC 12.2K    | 1:1        | 4183/836.6               | 25.00         | 23.54                | 0.224                        | 0.110            | 1.40           | 0.314        | /        |
| Front Side                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Battery2   | RMC 12.2K    | 1:1        | 4183/836.6               | 25.00         | 23.54                | 0.213                        | 0.098            | 1.40           | 0.298        | /        |
| Hotspot SAR(Distance 10mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            |              |            |                          |               |                      |                              |                  |                |              |          |
| Back Side                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | standard   | RMC 12.2K    | 1:1        | 4183/836.6               | 25.00         | 23.54                | 0.107                        | -0.084           | 1.40           | 0.150        | /        |
| Front Side                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | standard   | RMC 12.2K    | 1:1        | 4183/836.6               | 25.00         | 23.54                | 0.427                        | 0.170            | 1.40           | 0.598        | /        |
| Left Edge                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | standard   | RMC 12.2K    | 1:1        | 4183/836.6               | 25.00         | 23.54                | 0.036                        | 0.110            | 1.40           | 0.050        | /        |
| Right Edge                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | standard   | RMC 12.2K    | 1:1        | 4183/836.6               | 25.00         | 23.54                | 0.025                        | 0.105            | 1.40           | 0.034        | /        |
| Top Edge                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | standard   | RMC 12.2K    | 1:1        | 4183/836.6               | 25.00         | 23.54                | 0.060                        | 0.035            | 1.40           | 0.084        | /        |
| Bottom Edge                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | N/A        | N/A          | N/A        | N/A                      | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Front Side                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Battery2   | RMC 12.2K    | 1:1        | 4183/836.6               | 25.00         | 23.54                | 0.409                        | 0.152            | 1.40           | 0.572        | /        |
| Note: 1.The value with blue color is the maximum SAR Value of each test band.<br>2. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode. |            |              |            |                          |               |                      |                              |                  |                |              |          |

**Variant**

| Test Position                                                                 | Cover Type | Channel Type | Duty Cycle | Channel/ Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|-------------------------------------------------------------------------------|------------|--------------|------------|--------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|                                                                               |            |              |            |                          |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR                                                                      |            |              |            |                          |               |                      |                              |                  |                |              |          |
| Right Tilt                                                                    | standard   | RMC 12.2K    | 1:1        | 4183/836.6               | 19.00         | 17.57                | 0.272                        | 0.190            | 1.39           | 0.378        | 73       |
| Right Tilt                                                                    | SIM2       | RMC 12.2K    | 1:1        | 4183/836.6               | 19.00         | 17.57                | 0.229                        | 0.018            | 1.39           | 0.318        | /        |
| Body-worn SAR (Distance 15mm)                                                 |            |              |            |                          |               |                      |                              |                  |                |              |          |
| Front Side                                                                    | standard   | RMC 12.2K    | 1:1        | 4183/836.6               | 25.00         | 23.54                | 0.212                        | 0.070            | 1.40           | 0.297        | 74       |
| Front Side                                                                    | SIM2       | RMC 12.2K    | 1:1        | 4183/836.6               | 25.00         | 23.54                | 0.207                        | 0.025            | 1.40           | 0.290        | /        |
| Hotspot SAR(Distance 10mm)                                                    |            |              |            |                          |               |                      |                              |                  |                |              |          |
| Front Side                                                                    | standard   | RMC 12.2K    | 1:1        | 4183/836.6               | 25.00         | 23.54                | 0.297                        | 0.000            | 1.40           | 0.416        | 75       |
| Front Side                                                                    | SIM2       | RMC 12.2K    | 1:1        | 4183/836.6               | 25.00         | 23.54                | 0.290                        | 0.140            | 1.40           | 0.406        | /        |
| Note: 1.The value with blue color is the maximum SAR Value of each test band. |            |              |            |                          |               |                      |                              |                  |                |              |          |

**Table 28: LTE Band 2 (20MHz, Second-antenna)**
**Original**

| Test Position                                                                                                                                       | Cover Type | Duty Cycle | RB allocation | RB offset | Channel/<br>Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------|---------------|-----------|-----------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|                                                                                                                                                     |            |            |               |           |                             |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR (QPSK)                                                                                                                                     |            |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Left Cheek                                                                                                                                          | standard   | 1:1        | 1             | 0         | 18900/1880                  | 17.50         | 16.69                | 0.289                        | 0.090            | 1.21           | 0.348        | /        |
| Left Tilt                                                                                                                                           | standard   | 1:1        | 1             | 0         | 18900/1880                  | 17.50         | 16.69                | 0.313                        | 0.080            | 1.21           | 0.377        | /        |
| Right Cheek                                                                                                                                         | standard   | 1:1        | 1             | 0         | 18900/1880                  | 17.50         | 16.69                | 0.405                        | 0.056            | 1.21           | 0.488        | /        |
| Right Tilt                                                                                                                                          | standard   | 1:1        | 1             | 0         | 18900/1880                  | 17.50         | 16.69                | 0.512                        | 0.100            | 1.21           | 0.617        | /        |
| Left Cheek                                                                                                                                          | standard   | 1:1        | 50%           | 0         | 19100/1900                  | 17.50         | 16.53                | 0.231                        | 0.110            | 1.25           | 0.289        | /        |
| Left Tilt                                                                                                                                           | standard   | 1:1        | 50%           | 0         | 19100/1900                  | 17.50         | 16.53                | 0.293                        | 0.090            | 1.25           | 0.366        | /        |
| Right Cheek                                                                                                                                         | standard   | 1:1        | 50%           | 0         | 19100/1900                  | 17.50         | 16.53                | 0.375                        | 0.020            | 1.25           | 0.469        | /        |
| Right Tilt                                                                                                                                          | standard   | 1:1        | 50%           | 0         | 19100/1900                  | 17.50         | 16.53                | 0.480                        | 0.020            | 1.25           | 0.600        | /        |
| Right Tilt                                                                                                                                          | Battery2   | 1:1        | 1             | 0         | 18900/1880                  | 17.50         | 16.69                | 0.503                        | 0.083            | 1.21           | 0.606        | /        |
| Body-worn SAR (QPSK, Distance 15mm)                                                                                                                 |            |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Back Side                                                                                                                                           | standard   | 1:1        | 1             | 50        | 19100/1900                  | 23.00         | 22.29                | 0.214                        | -0.010           | 1.18           | 0.252        | /        |
| Front Side                                                                                                                                          | standard   | 1:1        | 1             | 50        | 19100/1900                  | 23.00         | 22.29                | 0.199                        | -0.063           | 1.18           | 0.234        | /        |
| Back Side                                                                                                                                           | standard   | 1:1        | 50%           | 0         | 18900/1880                  | 22.00         | 21.17                | 0.169                        | 0.040            | 1.21           | 0.205        | /        |
| Front Side                                                                                                                                          | standard   | 1:1        | 50%           | 0         | 18900/1880                  | 22.00         | 21.17                | 0.152                        | 0.190            | 1.21           | 0.184        | /        |
| Back Side                                                                                                                                           | Battery2   | 1:1        | 1             | 50        | 19100/1900                  | 23.00         | 22.29                | 0.208                        | -0.021           | 1.18           | 0.245        | /        |
| Hotspot SAR(QPSK, Distance 10mm)                                                                                                                    |            |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Back Side                                                                                                                                           | standard   | 1:1        | 1             | 50        | 19100/1900                  | 23.00         | 22.29                | 0.203                        | 0.190            | 1.18           | 0.239        | /        |
| Front Side                                                                                                                                          | standard   | 1:1        | 1             | 50        | 19100/1900                  | 23.00         | 22.29                | 0.212                        | 0.030            | 1.18           | 0.250        | /        |
| Left Edge                                                                                                                                           | standard   | 1:1        | 1             | 50        | 19100/1900                  | 23.00         | 22.29                | 0.08                         | 0.09             | 1.18           | 0.089        | /        |
| Right Edge                                                                                                                                          | N/A        | N/A        | N/A           | N/A       | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Top Edge                                                                                                                                            | standard   | 1:1        | 100%          | 50        | 19100/1900                  | 23.00         | 22.29                | 0.416                        | -0.020           | 1.18           | 0.490        | /        |
| Bottom Edge                                                                                                                                         | N/A        | N/A        | N/A           | N/A       | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Back Side                                                                                                                                           | standard   | 1:1        | 50%           | 0         | 18900/1880                  | 22.00         | 21.17                | 0.225                        | 0.034            | 1.21           | 0.272        | /        |
| Front Side                                                                                                                                          | standard   | 1:1        | 50%           | 0         | 18900/1880                  | 22.00         | 21.17                | 0.208                        | 0.034            | 1.21           | 0.252        | /        |
| Left Edge                                                                                                                                           | standard   | 1:1        | 50%           | 0         | 18900/1880                  | 22.00         | 21.17                | 0.069                        | 0.12             | 1.21           | 0.084        | /        |
| Right Edge                                                                                                                                          | N/A        | N/A        | N/A           | N/A       | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Top Edge                                                                                                                                            | standard   | 1:1        | 50%           | 0         | 18900/1880                  | 22.00         | 21.17                | 0.433                        | 0.024            | 1.21           | 0.524        | /        |
| Bottom Edge                                                                                                                                         | N/A        | N/A        | N/A           | N/A       | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Top Edge                                                                                                                                            | Battery2   | 1:1        | 50%           | 0         | 18900/1880                  | 22.00         | 21.17                | 0.426                        | 0.030            | 1.21           | 0.516        | /        |
| Note: 1.The value with blue color is the maximum SAR Value of each test band.                                                                       |            |            |               |           |                             |               |                      |                              |                  |                |              |          |
| 2.For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are $\geq 50\%$ limit(10g). |            |            |               |           |                             |               |                      |                              |                  |                |              |          |



**Variant**

| Test Position                                                                 | Cover Type | Duty Cycle | RB allocation | RB offset | Channel/ Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|-------------------------------------------------------------------------------|------------|------------|---------------|-----------|--------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|                                                                               |            |            |               |           |                          |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR (QPSK)                                                               |            |            |               |           |                          |               |                      |                              |                  |                |              |          |
| Right Tilt                                                                    | standard   | 1:1        | 1             | 0         | 18900/1880               | 17.50         | 16.69                | 0.498                        | 0.080            | 1.21           | 0.600        | 76       |
| Right Tilt                                                                    | SIM2       | 1:1        | 1             | 0         | 18900/1880               | 17.50         | 16.69                | 0.420                        | 0.037            | 1.21           | 0.506        | /        |
| Body-worn SAR (QPSK, Distance 15mm)                                           |            |            |               |           |                          |               |                      |                              |                  |                |              |          |
| Back Side                                                                     | standard   | 1:1        | 1             | 50        | 19100/1900               | 23.00         | 22.29                | 0.230                        | 0.038            | 1.18           | 0.271        | 77       |
| Back Side                                                                     | SIM2       | 1:1        | 1             | 50        | 19100/1900               | 23.00         | 22.29                | 0.225                        | 0.043            | 1.18           | 0.265        | /        |
| Hotspot SAR(QPSK, Distance 10mm)                                              |            |            |               |           |                          |               |                      |                              |                  |                |              |          |
| Top Edge                                                                      | standard   | 1:1        | 50%           | 0         | 18900/1880               | 22.00         | 21.17                | 0.409                        | 0.160            | 1.21           | 0.495        | 78       |
| Top Edge                                                                      | SIM2       | 1:1        | 50%           | 0         | 18900/1880               | 22.00         | 21.17                | 0.346                        | 0.017            | 1.21           | 0.419        | /        |
| Note: 1.The value with blue color is the maximum SAR Value of each test band. |            |            |               |           |                          |               |                      |                              |                  |                |              |          |

**Table 29: LTE Band 4 (20MHz, Second-antenna)**
**Original**

| Test Position                                                                                                                                       | Cover Type | Duty Cycle | RB allocation | RB offset | Channel/<br>Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------|---------------|-----------|-----------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|                                                                                                                                                     |            |            |               |           |                             |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR (QPSK)                                                                                                                                     |            |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Left Cheek                                                                                                                                          | standard   | 1:1        | 1             | 0         | 20300/1745                  | 16.30         | 15.69                | 0.294                        | 0.078            | 1.15           | 0.338        | /        |
| Left Tilt                                                                                                                                           | standard   | 1:1        | 1             | 0         | 20300/1745                  | 16.30         | 15.69                | 0.313                        | 0.013            | 1.15           | 0.360        | /        |
| Right Cheek                                                                                                                                         | standard   | 1:1        | 1             | 0         | 20300/1745                  | 16.30         | 15.69                | 0.373                        | 0.010            | 1.15           | 0.429        | /        |
| Right Tilt                                                                                                                                          | standard   | 1:1        | 1             | 0         | 20300/1745                  | 16.30         | 15.69                | 0.444                        | -0.020           | 1.15           | 0.511        | /        |
| Left Cheek                                                                                                                                          | standard   | 1:1        | 50%           | 0         | 20300/1745                  | 16.30         | 15.43                | 0.267                        | 0.090            | 1.22           | 0.326        | /        |
| Left Tilt                                                                                                                                           | standard   | 1:1        | 50%           | 0         | 20300/1745                  | 16.30         | 15.43                | 0.307                        | 0.034            | 1.22           | 0.375        | /        |
| Right Cheek                                                                                                                                         | standard   | 1:1        | 50%           | 0         | 20300/1745                  | 16.30         | 15.43                | 0.376                        | 0.060            | 1.22           | 0.459        | /        |
| Right Tilt                                                                                                                                          | standard   | 1:1        | 50%           | 0         | 20300/1745                  | 16.30         | 15.43                | 0.449                        | 0.037            | 1.22           | 0.549        | /        |
| Right Tilt                                                                                                                                          | Battery2   | 1:1        | 50%           | 0         | 20300/1745                  | 16.30         | 15.43                | 0.433                        | 0.043            | 1.22           | 0.529        | /        |
| Body-worn SAR (QPSK, Distance 15mm)                                                                                                                 |            |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Back Side                                                                                                                                           | standard   | 1:1        | 1             | 0         | 20050/1720                  | 22.80         | 22.03                | 0.148                        | 0.120            | 1.19           | 0.177        | /        |
| Front Side                                                                                                                                          | standard   | 1:1        | 1             | 0         | 20050/1720                  | 22.80         | 22.03                | 0.167                        | 0.024            | 1.19           | 0.199        | /        |
| Back Side                                                                                                                                           | standard   | 1:1        | 50%           | 0         | 20050/1720                  | 21.80         | 21.01                | 0.113                        | 0.060            | 1.20           | 0.136        | /        |
| Front Side                                                                                                                                          | standard   | 1:1        | 50%           | 0         | 20050/1720                  | 21.80         | 21.01                | 0.128                        | 0.020            | 1.20           | 0.154        | /        |
| Front Side                                                                                                                                          | Battery2   | 1:1        | 1             | 0         | 20050/1720                  | 22.80         | 22.03                | 0.158                        | 0.029            | 1.19           | 0.189        | /        |
| Hotspot SAR(QPSK, Distance 10mm)                                                                                                                    |            |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Back Side                                                                                                                                           | standard   | 1:1        | 1             | 0         | 20050/1720                  | 22.80         | 22.03                | 0.125                        | 0.110            | 1.19           | 0.149        | /        |
| Front Side                                                                                                                                          | standard   | 1:1        | 1             | 0         | 20050/1720                  | 22.80         | 22.03                | 0.151                        | 0.020            | 1.19           | 0.180        | /        |
| Left Edge                                                                                                                                           | standard   | 1:1        | 1             | 0         | 20050/1720                  | 22.80         | 22.03                | 0.059                        | 0.090            | 1.19           | 0.070        | /        |
| Right Edge                                                                                                                                          | N/A        | N/A        | N/A           | N/A       | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Top Edge                                                                                                                                            | standard   | 1:1        | 1             | 0         | 20050/1720                  | 22.80         | 22.03                | 0.241                        | 0.035            | 1.19           | 0.288        | /        |
| Bottom Edge                                                                                                                                         | N/A        | N/A        | N/A           | N/A       | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Back Side                                                                                                                                           | standard   | 1:1        | 50%           | 0         | 20050/1720                  | 21.80         | 21.01                | 0.129                        | 0.029            | 1.20           | 0.155        | /        |
| Front Side                                                                                                                                          | standard   | 1:1        | 50%           | 0         | 20050/1720                  | 21.80         | 21.01                | 0.156                        | 0.031            | 1.20           | 0.187        | /        |
| Left Edge                                                                                                                                           | standard   | 1:1        | 50%           | 0         | 20050/1720                  | 21.80         | 21.01                | 0.057                        | 0.021            | 1.20           | 0.068        | /        |
| Right Edge                                                                                                                                          | N/A        | N/A        | N/A           | N/A       | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Top Edge                                                                                                                                            | standard   | 1:1        | 50%           | 0         | 20050/1720                  | 21.80         | 21.01                | 0.240                        | 0.031            | 1.20           | 0.288        | /        |
| Bottom Edge                                                                                                                                         | N/A        | N/A        | N/A           | N/A       | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Top Edge                                                                                                                                            | Battery2   | 1:1        | 100%          | 0         | 20050/1720                  | 22.80         | 22.03                | 0.236                        | 0.031            | 1.19           | 0.282        | /        |
| Note: 1.The value with blue color is the maximum SAR Value of each test band.                                                                       |            |            |               |           |                             |               |                      |                              |                  |                |              |          |
| 2.For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are $\geq 50\%$ limit(10g). |            |            |               |           |                             |               |                      |                              |                  |                |              |          |

**Variant**

| Test Position                                                                 | Cover Type | Duty Cycle | RB allocation | RB offset | Channel/<br>Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|-------------------------------------------------------------------------------|------------|------------|---------------|-----------|-----------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|                                                                               |            |            |               |           |                             |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR (QPSK)                                                               |            |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Right Tilt                                                                    | standard   | 1:1        | 50%           | 0         | 20300/1745                  | 16.30         | 15.43                | 0.483                        | 0.000            | 1.22           | 0.590        | 79       |
| Right Tilt                                                                    | SIM2       | 1:1        | 50%           | 0         | 20300/1745                  | 16.30         | 15.43                | 0.431                        | 0.026            | 1.22           | 0.527        | /        |
| Body-worn SAR (QPSK, Distance 15mm)                                           |            |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Front Side                                                                    | standard   | 1:1        | 1             | 0         | 20050/1720                  | 22.80         | 22.03                | 0.175                        | 0.130            | 1.19           | 0.209        | 80       |
| Front Side                                                                    | SIM2       | 1:1        | 1             | 0         | 20050/1720                  | 22.80         | 22.03                | 0.159                        | 0.150            | 1.19           | 0.190        | /        |
| Hotspot SAR(QPSK, Distance 10mm)                                              |            |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Top Edge                                                                      | standard   | 1:1        | 1             | 0         | 20050/1720                  | 22.80         | 22.03                | 0.259                        | -0.040           | 1.19           | 0.309        | 81       |
| Top Edge                                                                      | SIM2       | 1:1        | 1             | 0         | 20050/1720                  | 22.80         | 22.03                | 0.214                        | 0.028            | 1.19           | 0.256        | /        |
| Note: 1.The value with blue color is the maximum SAR Value of each test band. |            |            |               |           |                             |               |                      |                              |                  |                |              |          |

**Table 30: LTE Band 5 (10MHz, Second-antenna)**
**Original**

| Test Position                                                                                                                                                                                                                        | Cover Type | Duty Cycle | RB allocation | RB offset | Channel/<br>Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------|---------------|-----------|-----------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|                                                                                                                                                                                                                                      |            |            |               |           |                             |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR (QPSK)                                                                                                                                                                                                                      |            |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Left Cheek                                                                                                                                                                                                                           | standard   | 1:1        | 1             | 25        | 20450/829                   | 19.00         | 18.21                | 0.282                        | 0.090            | 1.20           | 0.338        | /        |
| Left Tilt                                                                                                                                                                                                                            | standard   | 1:1        | 1             | 25        | 20450/829                   | 19.00         | 18.21                | 0.248                        | -0.035           | 1.20           | 0.297        | /        |
| Right Cheek                                                                                                                                                                                                                          | standard   | 1:1        | 1             | 25        | 20450/829                   | 19.00         | 18.21                | 0.296                        | 0.100            | 1.20           | 0.355        | /        |
| Right Tilt                                                                                                                                                                                                                           | standard   | 1:1        | 1             | 25        | 20450/829                   | 19.00         | 18.21                | 0.266                        | 0.040            | 1.20           | 0.319        | /        |
| Left Cheek                                                                                                                                                                                                                           | standard   | 1:1        | 50%           | 0         | 20450/829                   | 19.00         | 18.16                | 0.312                        | 0.038            | 1.21           | 0.379        | /        |
| Left Tilt                                                                                                                                                                                                                            | standard   | 1:1        | 50%           | 0         | 20450/829                   | 19.00         | 18.16                | 0.267                        | 0.060            | 1.21           | 0.324        | /        |
| Right Cheek                                                                                                                                                                                                                          | standard   | 1:1        | 50%           | 0         | 20450/829                   | 19.00         | 18.16                | 0.308                        | 0.030            | 1.21           | 0.374        | /        |
| Right Tilt                                                                                                                                                                                                                           | standard   | 1:1        | 50%           | 0         | 20450/829                   | 19.00         | 18.16                | 0.278                        | 0.170            | 1.21           | 0.337        | /        |
| Left Cheek                                                                                                                                                                                                                           | Battery2   | 1:1        | 50%           | 0         | 20450/829                   | 19.00         | 18.16                | 0.310                        | 0.032            | 1.21           | 0.376        | /        |
| Body-worn SAR (QPSK, Distance 15mm)                                                                                                                                                                                                  |            |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Back Side                                                                                                                                                                                                                            | standard   | 1:1        | 1             | 0         | 20600/844                   | 25.00         | 24.39                | 0.175                        | -0.020           | 1.15           | 0.201        | /        |
| Front Side                                                                                                                                                                                                                           | standard   | 1:1        | 1             | 0         | 20600/844                   | 25.00         | 24.39                | 0.114                        | -0.030           | 1.15           | 0.131        | /        |
| Back Side                                                                                                                                                                                                                            | standard   | 1:1        | 50%           | 0         | 20600/844                   | 24.00         | 23.36                | 0.137                        | -0.030           | 1.16           | 0.159        | /        |
| Front Side                                                                                                                                                                                                                           | standard   | 1:1        | 50%           | 0         | 20600/844                   | 24.00         | 23.36                | 0.144                        | -0.010           | 1.16           | 0.167        | /        |
| Back Side                                                                                                                                                                                                                            | Battery2   | 1:1        | 1             | 0         | 20600/844                   | 25.00         | 24.39                | 0.167                        | -0.025           | 1.15           | 0.192        | /        |
| Hotspot SAR(QPSK, Distance 10mm)                                                                                                                                                                                                     |            |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Back Side                                                                                                                                                                                                                            | standard   | 1:1        | 1             | 0         | 20600/844                   | 25.00         | 24.39                | 0.268                        | -0.010           | 1.15           | 0.308        | /        |
| Front Side                                                                                                                                                                                                                           | standard   | 1:1        | 1             | 0         | 20600/844                   | 25.00         | 24.39                | 0.299                        | 0.170            | 1.15           | 0.344        | /        |
| Left Edge                                                                                                                                                                                                                            | standard   | 1:1        | 1             | 0         | 20600/844                   | 25.00         | 24.39                | 0.069                        | 0.120            | 1.15           | 0.079        | /        |
| Right Edge                                                                                                                                                                                                                           | N/A        | N/A        | N/A           | N/A       | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Top Edge                                                                                                                                                                                                                             | standard   | 1:1        | 1             | 0         | 20600/844                   | 25.00         | 24.39                | 0.181                        | 0.130            | 1.15           | 0.208        | /        |
| Bottom Edge                                                                                                                                                                                                                          | N/A        | N/A        | N/A           | N/A       | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Back Side                                                                                                                                                                                                                            | standard   | 1:1        | 50%           | 0         | 20600/844                   | 24.00         | 23.36                | 0.258                        | 0.190            | 1.16           | 0.299        | /        |
| Front Side                                                                                                                                                                                                                           | standard   | 1:1        | 50%           | 0         | 20600/844                   | 24.00         | 23.36                | 0.306                        | 0.120            | 1.16           | 0.355        | /        |
| Left Edge                                                                                                                                                                                                                            | standard   | 1:1        | 50%           | 0         | 20600/844                   | 24.00         | 23.36                | 0.057                        | 0.110            | 1.16           | 0.066        | /        |
| Right Edge                                                                                                                                                                                                                           | N/A        | N/A        | N/A           | N/A       | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Top Edge                                                                                                                                                                                                                             | standard   | 1:1        | 50%           | 0         | 20600/844                   | 24.00         | 23.36                | 0.175                        | 0.053            | 1.16           | 0.203        | /        |
| Bottom Edge                                                                                                                                                                                                                          | N/A        | N/A        | N/A           | N/A       | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Front Side                                                                                                                                                                                                                           | Battery2   | 1:1        | 50%           | 0         | 20600/844                   | 24.00         | 23.36                | 0.300                        | 0.021            | 1.16           | 0.348        | /        |
| Note: 1.The value with blue color is the maximum SAR Value of each test band.<br>2.For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are $\geq 50\%$ limit(10g). |            |            |               |           |                             |               |                      |                              |                  |                |              |          |

**Variant**

| Test Position                                                                 | Cover Type | Duty Cycle | RB allocation | RB offset | Channel/<br>Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No |
|-------------------------------------------------------------------------------|------------|------------|---------------|-----------|-----------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|---------|
|                                                                               |            |            |               |           |                             |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |         |
| Head SAR (QPSK)                                                               |            |            |               |           |                             |               |                      |                              |                  |                |              |         |
| Left Cheek                                                                    | standard   | 1:1        | 50%           | 0         | 20450/829                   | 19.00         | 18.16                | 0.332                        | 0.060            | 1.21           | 0.403        | 82      |
| Left Cheek                                                                    | SIM2       | 1:1        | 50%           | 0         | 20450/829                   | 19.00         | 18.16                | 0.307                        | -0.049           | 1.21           | 0.373        | /       |
| Body-worn SAR (QPSK, Distance 15mm)                                           |            |            |               |           |                             |               |                      |                              |                  |                |              |         |
| Back Side                                                                     | standard   | 1:1        | 1             | 0         | 20600/844                   | 25.00         | 24.39                | 0.185                        | 0.100            | 1.15           | 0.213        | 83      |
| Back Side                                                                     | SIM2       | 1:1        | 1             | 0         | 20600/844                   | 25.00         | 24.39                | 0.172                        | -0.047           | 1.15           | 0.198        | /       |
| Hotspot SAR(QPSK, Distance 10mm)                                              |            |            |               |           |                             |               |                      |                              |                  |                |              |         |
| Front Side                                                                    | standard   | 1:1        | 50%           | 0         | 20600/844                   | 24.00         | 23.36                | 0.320                        | 0.150            | 1.16           | 0.371        | 84      |
| Front Side                                                                    | SIM2       | 1:1        | 50%           | 0         | 20600/844                   | 24.00         | 23.36                | 0.308                        | -0.010           | 1.16           | 0.357        | /       |
| Note: 1.The value with blue color is the maximum SAR Value of each test band. |            |            |               |           |                             |               |                      |                              |                  |                |              |         |

**Table 31: LTE Band 7 (20MHz, Second-antenna)**
**Variant**

| Test Position                       | Cover Type | Duty Cycle | RB allocation | RB offset | Channel/<br>Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|-------------------------------------|------------|------------|---------------|-----------|-----------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|                                     |            |            |               |           |                             |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR (QPSK)                     |            |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Left Cheek                          | standard   | 1:1        | 1             | 0         | 21350/2560                  | 16.50         | 15.99                | 0.322                        | -0.136           | 1.12           | 0.362        | /        |
| Left Tilt                           | standard   | 1:1        | 1             | 0         | 21350/2560                  | 16.50         | 15.99                | 0.348                        | -0.040           | 1.12           | 0.391        | /        |
| Right Cheek                         | standard   | 1:1        | 1             | 0         | 21350/2560                  | 16.50         | 15.99                | 0.557                        | 0.060            | 1.12           | 0.626        | /        |
| Right Tilt                          | standard   | 1:1        | 1             | 0         | 21350/2560                  | 16.50         | 15.99                | 0.536                        | 0.050            | 1.12           | 0.603        | /        |
| Left Cheek                          | standard   | 1:1        | 50%           | 0         | 21350/2560                  | 16.50         | 15.87                | 0.306                        | -0.030           | 1.16           | 0.354        | /        |
| Left Tilt                           | standard   | 1:1        | 50%           | 0         | 21350/2560                  | 16.50         | 15.87                | 0.367                        | -0.050           | 1.16           | 0.424        | /        |
| Right Cheek                         | standard   | 1:1        | 50%           | 0         | 21350/2560                  | 16.50         | 15.87                | 0.548                        | 0.022            | 1.16           | 0.634        | /        |
| Right Tilt                          | standard   | 1:1        | 50%           | 0         | 21350/2560                  | 16.50         | 15.87                | 0.653                        | 0.111            | 1.16           | 0.755        | 85       |
| Right Tilt                          | standard   | 1:1        | 1             | 99        | 37850/2580(PCC)             | 16.50         | 15.54                | 0.466                        | -0.110           | 1.25           | 0.581        | /        |
|                                     | standard   | 1:1        | 1             | 0         | 38048/2599.8(SCC)           |               |                      |                              |                  |                |              |          |
| Right Tilt                          | Battery2   | 1:1        | 50%           | 0         | 21350/2560                  | 16.50         | 15.87                | 0.605                        | -0.063           | 1.16           | 0.699        | /        |
| Right Tilt                          | SIM2       | 1:1        | 50%           | 0         | 21350/2560                  | 16.50         | 15.87                | 0.620                        | 0.027            | 1.16           | 0.717        | /        |
| Body-worn SAR (QPSK, Distance 15mm) |            |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Back Side                           | standard   | 1:1        | 1             | 99        | 21100/2535                  | 20.50         | 20.12                | 0.261                        | 0.191            | 1.09           | 0.285        | 86       |
| Front Side                          | standard   | 1:1        | 1             | 99        | 21100/2535                  | 20.50         | 20.12                | 0.129                        | 0.057            | 1.09           | 0.141        | /        |
| Back Side                           | standard   | 1:1        | 50%           | 50        | 20850/2510                  | 20.50         | 19.95                | 0.254                        | 0.024            | 1.14           | 0.288        | /        |
| Front Side                          | standard   | 1:1        | 50%           | 50        | 20850/2510                  | 20.50         | 19.95                | 0.120                        | 0.033            | 1.14           | 0.136        | /        |
| Back Side                           | Standard   | 1:1        | 1             | 99        | 37850/2580(PCC)             | 20.50         | 19.61                | 0.184                        | 0.076            | 1.23           | 0.226        | /        |
|                                     |            |            | 1             | 0         | 38048/2599.8(SCC)           |               |                      |                              |                  |                |              | /        |
| Back Side                           | Battery2   | 1:1        | 1             | 99        | 21100/2535                  | 20.50         | 20.12                | 0.248                        | -0.075           | 1.09           | 0.271        | /        |
| Back Side                           | SIM2       | 1:1        | 1             | 99        | 21100/2535                  | 20.50         | 20.12                | 0.232                        | 0.019            | 1.09           | 0.253        | /        |
| Hotspot SAR(QPSK, Distance 10mm)    |            |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Back Side                           | standard   | 1:1        | 1             | 99        | 21100/2535                  | 20.50         | 20.12                | 0.430                        | 0.024            | 1.09           | 0.469        | 87       |
| Front Side                          | standard   | 1:1        | 1             | 99        | 21100/2535                  | 20.50         | 20.12                | 0.189                        | 0.041            | 1.09           | 0.206        | /        |
| Left Edge                           | standard   | 1:1        | 1             | 99        | 21100/2535                  | 20.50         | 20.12                | 0.069                        | 0.037            | 1.09           | 0.076        | /        |
| Right Edge                          | N/A        | N/A        | N/A           | N/A       | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Top Edge                            | standard   | 1:1        | 1             | 99        | 21100/2535                  | 20.50         | 20.12                | 0.360                        | 0.170            | 1.09           | 0.393        | /        |
| Bottom Edge                         | N/A        | N/A        | N/A           | N/A       | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Back Side                           | standard   | 1:1        | 50%           | 50        | 20850/2510                  | 20.50         | 19.95                | 0.401                        | 0.053            | 1.14           | 0.455        | /        |
| Front Side                          | standard   | 1:1        | 50%           | 50        | 20850/2510                  | 20.50         | 19.95                | 0.182                        | 0.047            | 1.14           | 0.207        | /        |
| Left Edge                           | standard   | 1:1        | 50%           | 50        | 20850/2510                  | 20.50         | 19.95                | 0.079                        | 0.145            | 1.14           | 0.090        | /        |



|             |          |     |     |     |                       |       |       |       |        |      |       |     |
|-------------|----------|-----|-----|-----|-----------------------|-------|-------|-------|--------|------|-------|-----|
| Right Edge  | N/A      | N/A | N/A | N/A | N/A                   | N/A   | N/A   | N/A   | N/A    | N/A  | N/A   | N/A |
| Top Edge    | standard | 1:1 | 50% | 50  | 20850/2510            | 20.50 | 19.95 | 0.363 | -0.110 | 1.14 | 0.412 | /   |
| Bottom Edge | N/A      | N/A | N/A | N/A | N/A                   | N/A   | N/A   | N/A   | N/A    | N/A  | N/A   | N/A |
| Back Side   | Standard | 1:1 | 1   | 99  | 37850/2580(P<br>CC)   | 20.50 | 19.61 | 0.362 | -0.044 | 1.23 | 0.444 | /   |
|             |          |     | 1   | 0   | 38048/2599.8(<br>SCC) |       |       |       |        |      |       | /   |
| Back Side   | Battery2 | 1:1 | 1   | 99  | 21100/2535            | 20.50 | 20.12 | 0.421 | 0.090  | 1.09 | 0.459 | /   |
| Back Side   | SIM2     | 1:1 | 1   | 99  | 21100/2535            | 20.50 | 20.12 | 0.415 | -0.023 | 1.09 | 0.453 | /   |

Note: 1. The value with blue color is the maximum SAR Value of each test band.

2. For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are  $\geq 50\%$  limit(10g).

**Table 32: LTE Band 12 (10MHz, Second-antenna)**
**Original**

| Test Position                                                                                                                                                                                                                  | Cover Type | Duty Cycle | RB allocation | RB offset | Channel/<br>Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------|---------------|-----------|-----------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|                                                                                                                                                                                                                                |            |            |               |           |                             |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR (QPSK)                                                                                                                                                                                                                |            |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Left Cheek                                                                                                                                                                                                                     | standard   | 1:1        | 1             | 25        | 23060/704                   | 21.00         | 20.34                | 0.292                        | 0.043            | 1.16           | 0.340        | /        |
| Left Tilt                                                                                                                                                                                                                      | standard   | 1:1        | 1             | 25        | 23060/704                   | 21.00         | 20.34                | 0.245                        | 0.150            | 1.16           | 0.285        | /        |
| Right Cheek                                                                                                                                                                                                                    | standard   | 1:1        | 1             | 25        | 23060/704                   | 21.00         | 20.34                | 0.411                        | -0.130           | 1.16           | 0.478        | /        |
| Right Tilt                                                                                                                                                                                                                     | standard   | 1:1        | 1             | 25        | 23060/704                   | 21.00         | 20.34                | 0.396                        | 0.020            | 1.16           | 0.461        | /        |
| Left Cheek                                                                                                                                                                                                                     | standard   | 1:1        | 50%           | 13        | 23060/704                   | 21.00         | 20.32                | 0.297                        | 0.000            | 1.17           | 0.347        | /        |
| Left Tilt                                                                                                                                                                                                                      | standard   | 1:1        | 50%           | 13        | 23060/704                   | 21.00         | 20.32                | 0.236                        | -0.027           | 1.17           | 0.276        | /        |
| Right Cheek                                                                                                                                                                                                                    | standard   | 1:1        | 50%           | 13        | 23060/704                   | 21.00         | 20.32                | 0.401                        | 0.070            | 1.17           | 0.469        | /        |
| Right Tilt                                                                                                                                                                                                                     | standard   | 1:1        | 50%           | 13        | 23060/704                   | 21.00         | 20.32                | 0.410                        | 0.070            | 1.17           | 0.479        | /        |
| Right Tilt                                                                                                                                                                                                                     | Battery2   | 1:1        | 50%           | 13        | 23060/704                   | 21.00         | 20.32                | 0.406                        | 0.082            | 1.17           | 0.475        | /        |
| Body-worn SAR (QPSK, Distance 15mm)                                                                                                                                                                                            |            |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Back Side                                                                                                                                                                                                                      | standard   | 1:1        | 1             | 25        | 23130/711                   | 25.00         | 24.63                | 0.139                        | 0.010            | 1.09           | 0.151        | /        |
| Front Side                                                                                                                                                                                                                     | standard   | 1:1        | 1             | 25        | 23130/711                   | 25.00         | 24.63                | 0.153                        | 0.022            | 1.09           | 0.167        | /        |
| Back Side                                                                                                                                                                                                                      | standard   | 1:1        | 50%           | 0         | 23095/707.5                 | 24.00         | 23.59                | 0.088                        | 0.050            | 1.10           | 0.096        | /        |
| Front Side                                                                                                                                                                                                                     | standard   | 1:1        | 50%           | 0         | 23095/707.5                 | 24.00         | 23.59                | 0.093                        | 0.140            | 1.10           | 0.102        | /        |
| Front Side                                                                                                                                                                                                                     | Battery2   | 1:1        | 1             | 25        | 23130/711                   | 25.00         | 24.63                | 0.148                        | 0.026            | 1.09           | 0.161        | /        |
| Hotspot SAR(QPSK, Distance 10mm)                                                                                                                                                                                               |            |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Back Side                                                                                                                                                                                                                      | standard   | 1:1        | 1             | 25        | 23130/711                   | 25.00         | 24.63                | 0.306                        | 0.050            | 1.09           | 0.333        | /        |
| Front Side                                                                                                                                                                                                                     | standard   | 1:1        | 1             | 25        | 23130/711                   | 25.00         | 24.63                | 0.363                        | 0.130            | 1.09           | 0.395        | /        |
| Left Edge                                                                                                                                                                                                                      | standard   | 1:1        | 1             | 25        | 23130/711                   | 25.00         | 24.63                | 0.109                        | 0.110            | 1.09           | 0.119        | /        |
| Right Edge                                                                                                                                                                                                                     | N/A        | N/A        | N/A           | N/A       | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Top Edge                                                                                                                                                                                                                       | standard   | 1:1        | 1             | 25        | 23130/711                   | 25.00         | 24.63                | 0.209                        | -0.180           | 1.09           | 0.228        | /        |
| Bottom Edge                                                                                                                                                                                                                    | N/A        | N/A        | N/A           | N/A       | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Back Side                                                                                                                                                                                                                      | standard   | 1:1        | 50%           | 0         | 23095/707.5                 | 24.00         | 23.59                | 0.203                        | 0.020            | 1.10           | 0.223        | /        |
| Front Side                                                                                                                                                                                                                     | standard   | 1:1        | 50%           | 0         | 23095/707.5                 | 24.00         | 23.59                | 0.240                        | 0.031            | 1.10           | 0.264        | /        |
| Left Edge                                                                                                                                                                                                                      | standard   | 1:1        | 50%           | 0         | 23095/707.5                 | 24.00         | 23.59                | 0.101                        | 0.080            | 1.10           | 0.111        | /        |
| Right Edge                                                                                                                                                                                                                     | N/A        | N/A        | N/A           | N/A       | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Top Edge                                                                                                                                                                                                                       | standard   | 1:1        | 50%           | 0         | 23095/707.5                 | 24.00         | 23.59                | 0.129                        | 0.120            | 1.10           | 0.142        | /        |
| Bottom Edge                                                                                                                                                                                                                    | N/A        | N/A        | N/A           | N/A       | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Front Side                                                                                                                                                                                                                     | Battery2   | 1:1        | 1             | 25        | 23130/711                   | 25.00         | 24.63                | 0.357                        | 0.043            | 1.09           | 0.389        | /        |
| Note: 1.The value with blue color is the maximum SAR Value of each test band.<br>2.For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are ≥ 50% limit(10g). |            |            |               |           |                             |               |                      |                              |                  |                |              |          |



**Variant**

| Test Position                                                                 | Cover Type | Duty Cycle | RB alloc ation | RB offset | Channel/ Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|-------------------------------------------------------------------------------|------------|------------|----------------|-----------|--------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|                                                                               |            |            |                |           |                          |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR (QPSK)                                                               |            |            |                |           |                          |               |                      |                              |                  |                |              |          |
| Right Tilt                                                                    | standard   | 1:1        | 50%            | 13        | 23060/704                | 21.00         | 20.32                | 0.431                        | -0.030           | 1.17           | 0.504        | 88       |
| Right Tilt                                                                    | SIM2       | 1:1        | 50%            | 13        | 23060/704                | 21.00         | 20.32                | 0.372                        | 0.073            | 1.17           | 0.435        | /        |
| Body-worn SAR (QPSK, Distance 15mm)                                           |            |            |                |           |                          |               |                      |                              |                  |                |              |          |
| Front Side                                                                    | standard   | 1:1        | 1              | 25        | 23130/711                | 25.00         | 24.63                | 0.160                        | 0.120            | 1.09           | 0.174        | 89       |
| Front Side                                                                    | SIM2       | 1:1        | 1              | 25        | 23130/711                | 25.00         | 24.63                | 0.117                        | 0.024            | 1.09           | 0.127        | /        |
| Hotspot SAR(QPSK, Distance 10mm)                                              |            |            |                |           |                          |               |                      |                              |                  |                |              |          |
| Front Side                                                                    | standard   | 1:1        | 1              | 25        | 23130/711                | 25.00         | 24.63                | 0.345                        | 0.080            | 1.09           | 0.376        | 90       |
| Front Side                                                                    | SIM2       | 1:1        | 1              | 25        | 23130/711                | 25.00         | 24.63                | 0.328                        | -0.067           | 1.09           | 0.357        | /        |
| Note: 1.The value with blue color is the maximum SAR Value of each test band. |            |            |                |           |                          |               |                      |                              |                  |                |              |          |

**Table 33: LTE Band 17 (10MHz, Second-antenna)**
**Original**

| Test Position                                                                                                                                                                                                                  | Cover Type | Duty Cycle | RB allocation | RB offset | Channel/<br>Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------|---------------|-----------|-----------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|                                                                                                                                                                                                                                |            |            |               |           |                             |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR (QPSK)                                                                                                                                                                                                                |            |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Left Cheek                                                                                                                                                                                                                     | standard   | 1:1        | 1             | 25        | 23790/710                   | 21.00         | 20.38                | 0.343                        | -0.050           | 1.15           | 0.396        | /        |
| Left Tilt                                                                                                                                                                                                                      | standard   | 1:1        | 1             | 25        | 23790/710                   | 21.00         | 20.38                | 0.301                        | 0.080            | 1.15           | 0.347        | /        |
| Right Cheek                                                                                                                                                                                                                    | standard   | 1:1        | 1             | 25        | 23790/710                   | 21.00         | 20.38                | 0.468                        | 0.060            | 1.15           | 0.540        | /        |
| Right Tilt                                                                                                                                                                                                                     | standard   | 1:1        | 1             | 25        | 23790/710                   | 21.00         | 20.38                | 0.473                        | 0.025            | 1.15           | 0.546        | /        |
| Left Cheek                                                                                                                                                                                                                     | standard   | 1:1        | 50%           | 25        | 23800/711                   | 21.00         | 20.30                | 0.361                        | -0.010           | 1.17           | 0.424        | /        |
| Left Tilt                                                                                                                                                                                                                      | standard   | 1:1        | 50%           | 25        | 23800/711                   | 21.00         | 20.30                | 0.320                        | -0.010           | 1.17           | 0.376        | /        |
| Right Cheek                                                                                                                                                                                                                    | standard   | 1:1        | 50%           | 25        | 23800/711                   | 21.00         | 20.30                | 0.480                        | -0.180           | 1.17           | 0.564        | /        |
| Right Tilt                                                                                                                                                                                                                     | standard   | 1:1        | 50%           | 25        | 23800/711                   | 21.00         | 20.30                | 0.453                        | 0.130            | 1.17           | 0.532        | /        |
| Right Cheek                                                                                                                                                                                                                    | Battery2   | 1:1        | 50%           | 25        | 23800/711                   | 21.00         | 20.30                | 0.473                        | 0.022            | 1.17           | 0.556        | /        |
| Body-worn SAR (QPSK, Distance 15mm)                                                                                                                                                                                            |            |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Back Side                                                                                                                                                                                                                      | standard   | 1:1        | 1             | 25        | 23780/709                   | 25.00         | 24.60                | 0.122                        | 0.060            | 1.10           | 0.134        | /        |
| Front Side                                                                                                                                                                                                                     | standard   | 1:1        | 1             | 25        | 23780/709                   | 25.00         | 24.60                | 0.120                        | 0.031            | 1.10           | 0.132        | /        |
| Back Side                                                                                                                                                                                                                      | standard   | 1:1        | 50%           | 25        | 23780/709                   | 24.00         | 23.54                | 0.098                        | -0.020           | 1.11           | 0.109        | /        |
| Front Side                                                                                                                                                                                                                     | standard   | 1:1        | 50%           | 25        | 23780/709                   | 24.00         | 23.54                | 0.104                        | 0.029            | 1.11           | 0.116        | /        |
| Back Side                                                                                                                                                                                                                      | Battery2   | 1:1        | 1             | 25        | 23780/709                   | 25.00         | 24.60                | 0.118                        | 0.041            | 1.10           | 0.129        | /        |
| Hotspot SAR(QPSK, Distance 10mm)                                                                                                                                                                                               |            |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Back Side                                                                                                                                                                                                                      | standard   | 1:1        | 1             | 25        | 23780/709                   | 25.00         | 24.60                | 0.339                        | 0.120            | 1.10           | 0.372        | /        |
| Front Side                                                                                                                                                                                                                     | standard   | 1:1        | 1             | 25        | 23780/709                   | 25.00         | 24.60                | 0.265                        | 0.024            | 1.10           | 0.291        | /        |
| Left Edge                                                                                                                                                                                                                      | standard   | 1:1        | 1             | 25        | 23780/709                   | 25.00         | 24.60                | 0.098                        | 0.012            | 1.10           | 0.107        | /        |
| Right Edge                                                                                                                                                                                                                     | N/A        | N/A        | N/A           | N/A       | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Top Edge                                                                                                                                                                                                                       | standard   | 1:1        | 1             | 25        | 23780/709                   | 25.00         | 24.60                | 0.184                        | 0.150            | 1.10           | 0.202        | /        |
| Bottom Edge                                                                                                                                                                                                                    | N/A        | N/A        | N/A           | N/A       | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Back Side                                                                                                                                                                                                                      | standard   | 1:1        | 50%           | 25        | 23780/709                   | 24.00         | 23.54                | 0.205                        | -0.170           | 1.11           | 0.228        | /        |
| Front Side                                                                                                                                                                                                                     | standard   | 1:1        | 50%           | 25        | 23780/709                   | 24.00         | 23.54                | 0.245                        | 0.020            | 1.11           | 0.272        | /        |
| Left Edge                                                                                                                                                                                                                      | standard   | 1:1        | 50%           | 25        | 23780/709                   | 24.00         | 23.54                | 0.087                        | 0.100            | 1.11           | 0.097        | /        |
| Right Edge                                                                                                                                                                                                                     | N/A        | N/A        | N/A           | N/A       | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Top Edge                                                                                                                                                                                                                       | standard   | 1:1        | 50%           | 25        | 23780/709                   | 24.00         | 23.54                | 0.160                        | 0.080            | 1.11           | 0.178        | /        |
| Bottom Edge                                                                                                                                                                                                                    | N/A        | N/A        | N/A           | N/A       | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Back Side                                                                                                                                                                                                                      | Battery2   | 1:1        | 1             | 25        | 23780/709                   | 25.00         | 24.60                | 0.327                        | 0.140            | 1.10           | 0.359        | /        |
| Note: 1.The value with blue color is the maximum SAR Value of each test band.<br>2.For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are ≥ 50% limit(10g). |            |            |               |           |                             |               |                      |                              |                  |                |              |          |

**Variant**

| Test Position                                                                 | Cover Type | Duty Cycle | RB allocation | RB offset | Channel/ Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|-------------------------------------------------------------------------------|------------|------------|---------------|-----------|--------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|                                                                               |            |            |               |           |                          |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR (QPSK)                                                               |            |            |               |           |                          |               |                      |                              |                  |                |              |          |
| Right Cheek                                                                   | standard   | 1:1        | 50%           | 25        | 23800/711                | 21.00         | 20.30                | 0.474                        | 0.090            | 1.17           | 0.557        | 91       |
| Right Cheek                                                                   | SIM2       | 1:1        | 50%           | 25        | 23800/711                | 21.00         | 20.30                | 0.458                        | 0.055            | 1.17           | 0.538        | /        |
| Body-worn SAR (QPSK, Distance 15mm)                                           |            |            |               |           |                          |               |                      |                              |                  |                |              |          |
| Back Side                                                                     | standard   | 1:1        | 1             | 25        | 23780/709                | 25.00         | 24.60                | 0.128                        | 0.033            | 1.10           | 0.140        | 92       |
| Back Side                                                                     | SIM2       | 1:1        | 1             | 25        | 23780/709                | 25.00         | 24.60                | 0.119                        | 0.017            | 1.10           | 0.130        | /        |
| Hotspot SAR(QPSK, Distance 10mm)                                              |            |            |               |           |                          |               |                      |                              |                  |                |              |          |
| Back Side                                                                     | standard   | 1:1        | 1             | 25        | 23780/709                | 25.00         | 24.60                | 0.304                        | 0.100            | 1.10           | 0.333        | 93       |
| Back Side                                                                     | SIM2       | 1:1        | 1             | 25        | 23780/709                | 25.00         | 24.60                | 0.263                        | 0.073            | 1.10           | 0.288        | /        |
| Note: 1.The value with blue color is the maximum SAR Value of each test band. |            |            |               |           |                          |               |                      |                              |                  |                |              |          |

**Table 34: LTE Band 26 (15MHz, Second-antenna)**
**Original**

| Test Position                                                                                                                                                                                                                        | Cover Type | Duty Cycle | RB allocation | RB offset | Channel/<br>Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------|---------------|-----------|-----------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|                                                                                                                                                                                                                                      |            |            |               |           |                             |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR (QPSK)                                                                                                                                                                                                                      |            |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Left Cheek                                                                                                                                                                                                                           | standard   | 1:1        | 1             | 38        | 26965/841.5                 | 20.00         | 19.23                | 0.359                        | 0.029            | 1.19           | 0.429        | /        |
| Left Tilt                                                                                                                                                                                                                            | standard   | 1:1        | 1             | 38        | 26965/841.5                 | 20.00         | 19.23                | 0.295                        | 0.045            | 1.19           | 0.352        | /        |
| Right Cheek                                                                                                                                                                                                                          | standard   | 1:1        | 1             | 38        | 26965/841.5                 | 20.00         | 19.23                | 0.379                        | 0.030            | 1.19           | 0.453        | /        |
| Right Tilt                                                                                                                                                                                                                           | standard   | 1:1        | 1             | 38        | 26965/841.5                 | 20.00         | 19.23                | 0.323                        | 0.021            | 1.19           | 0.386        | /        |
| Left Cheek                                                                                                                                                                                                                           | standard   | 1:1        | 50%           | 39        | 26965/841.5                 | 20.00         | 19.21                | 0.342                        | 0.040            | 1.20           | 0.410        | /        |
| Left Tilt                                                                                                                                                                                                                            | standard   | 1:1        | 50%           | 39        | 26965/841.5                 | 20.00         | 19.21                | 0.279                        | 0.090            | 1.20           | 0.335        | /        |
| Right Cheek                                                                                                                                                                                                                          | standard   | 1:1        | 50%           | 39        | 26965/841.5                 | 20.00         | 19.21                | 0.371                        | 0.150            | 1.20           | 0.445        | /        |
| Right Tilt                                                                                                                                                                                                                           | standard   | 1:1        | 50%           | 39        | 26965/841.5                 | 20.00         | 19.21                | 0.311                        | 0.020            | 1.20           | 0.373        | /        |
| Right Cheek                                                                                                                                                                                                                          | Battery2   | 1:1        | 1             | 38        | 26965/841.5                 | 20.00         | 19.23                | 0.371                        | 0.026            | 1.19           | 0.443        | /        |
| Body-worn SAR (QPSK, Distance 15mm)                                                                                                                                                                                                  |            |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Back Side                                                                                                                                                                                                                            | standard   | 1:1        | 1             | 38        | 26865/831.5                 | 25.00         | 24.48                | 0.197                        | -0.050           | 1.13           | 0.222        | /        |
| Front Side                                                                                                                                                                                                                           | standard   | 1:1        | 1             | 38        | 26865/831.5                 | 25.00         | 24.48                | 0.209                        | 0.140            | 1.13           | 0.236        | /        |
| Back Side                                                                                                                                                                                                                            | standard   | 1:1        | 50%           | 0         | 26765/821.5                 | 24.00         | 23.48                | 0.161                        | 0.000            | 1.13           | 0.181        | /        |
| Front Side                                                                                                                                                                                                                           | standard   | 1:1        | 50%           | 0         | 26765/821.5                 | 24.00         | 23.48                | 0.176                        | 0.150            | 1.13           | 0.198        | /        |
| Front Side                                                                                                                                                                                                                           | Battery2   | 1:1        | 1             | 38        | 26865/831.5                 | 25.00         | 24.48                | 0.205                        | 0.170            | 1.13           | 0.231        | /        |
| Hotspot SAR(QPSK, Distance 10mm)                                                                                                                                                                                                     |            |            |               |           |                             |               |                      |                              |                  |                |              |          |
| Back Side                                                                                                                                                                                                                            | standard   | 1:1        | 1             | 38        | 26865/831.5                 | 25.00         | 24.48                | 0.265                        | 0.090            | 1.13           | 0.299        | /        |
| Front Side                                                                                                                                                                                                                           | standard   | 1:1        | 1             | 38        | 26865/831.5                 | 25.00         | 24.48                | 0.279                        | 0.140            | 1.13           | 0.314        | /        |
| Left Edge                                                                                                                                                                                                                            | standard   | 1:1        | 1             | 38        | 26865/831.5                 | 25.00         | 24.48                | 0.087                        | 0.011            | 1.13           | 0.098        | /        |
| Right Edge                                                                                                                                                                                                                           | N/A        | N/A        | N/A           | N/A       | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Top Edge                                                                                                                                                                                                                             | standard   | 1:1        | 1             | 38        | 26865/831.5                 | 25.00         | 24.48                | 0.188                        | -0.160           | 1.13           | 0.212        | /        |
| Bottom Edge                                                                                                                                                                                                                          | N/A        | N/A        | N/A           | N/A       | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Back Side                                                                                                                                                                                                                            | standard   | 1:1        | 50%           | 0         | 26765/821.5                 | 24.00         | 23.48                | 0.278                        | -0.010           | 1.13           | 0.313        | /        |
| Front Side                                                                                                                                                                                                                           | standard   | 1:1        | 50%           | 0         | 26765/821.5                 | 24.00         | 23.48                | 0.292                        | 0.150            | 1.13           | 0.329        | /        |
| Left Edge                                                                                                                                                                                                                            | standard   | 1:1        | 50%           | 0         | 26765/821.5                 | 24.00         | 23.48                | 0.064                        | 0.014            | 1.13           | 0.072        | /        |
| Right Edge                                                                                                                                                                                                                           | N/A        | N/A        | N/A           | N/A       | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Top Edge                                                                                                                                                                                                                             | standard   | 1:1        | 50%           | 0         | 26765/821.5                 | 24.00         | 23.48                | 0.221                        | 0.023            | 1.13           | 0.249        | /        |
| Bottom Edge                                                                                                                                                                                                                          | N/A        | N/A        | N/A           | N/A       | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A            | N/A          | N/A      |
| Front Side                                                                                                                                                                                                                           | Battery2   | 1:1        | 50%           | 0         | 26765/821.5                 | 24.00         | 23.48                | 0.288                        | 0.020            | 1.13           | 0.325        | /        |
| Note: 1.The value with blue color is the maximum SAR Value of each test band.<br>2.For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are $\geq 50\%$ limit(10g). |            |            |               |           |                             |               |                      |                              |                  |                |              |          |

**Variant**

| Test Position                                                                 | Cover Type | Duty Cycle | RB alloc ation | RB offset | Channel/ Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No. |
|-------------------------------------------------------------------------------|------------|------------|----------------|-----------|--------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|----------|
|                                                                               |            |            |                |           |                          |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |          |
| Head SAR (QPSK)                                                               |            |            |                |           |                          |               |                      |                              |                  |                |              |          |
| Right Cheek                                                                   | standard   | 1:1        | 1              | 38        | 26965/841.5              | 20.00         | 19.23                | 0.402                        | 0.030            | 1.19           | 0.480        | 94       |
| Right Cheek                                                                   | SIM2       | 1:1        | 1              | 38        | 26965/841.5              | 20.00         | 19.23                | 0.336                        | -0.042           | 1.19           | 0.401        | /        |
| Body-worn SAR (QPSK, Distance 15mm)                                           |            |            |                |           |                          |               |                      |                              |                  |                |              |          |
| Front Side                                                                    | standard   | 1:1        | 1              | 38        | 26865/831.5              | 25.00         | 24.48                | 0.215                        | 0.190            | 1.13           | 0.242        | 95       |
| Front Side                                                                    | SIM2       | 1:1        | 1              | 38        | 26865/831.5              | 25.00         | 24.48                | 0.198                        | 0.023            | 1.13           | 0.223        | /        |
| Hotspot SAR(QPSK, Distance 10mm)                                              |            |            |                |           |                          |               |                      |                              |                  |                |              |          |
| Front Side                                                                    | standard   | 1:1        | 50%            | 0         | 26765/821.5              | 24.00         | 23.48                | 0.317                        | 0.110            | 1.13           | 0.357        | 96       |
| Front Side                                                                    | SIM2       | 1:1        | 50%            | 0         | 26765/821.5              | 24.00         | 23.48                | 0.301                        | 0.096            | 1.13           | 0.339        | /        |
| Note: 1.The value with blue color is the maximum SAR Value of each test band. |            |            |                |           |                          |               |                      |                              |                  |                |              |          |

**Table 35: LTE Band 38 (20MHz, Second-antenna)**
**Original**

| Test Position                       | Cover Type | Duty Cycle | RB alloc<br>ation | RB<br>offset | Channel/<br>Frequency<br>(MHz) | Tune-up<br>(dBm) | Measured<br>power<br>(dBm) | Limit of SAR 1.6 W/kg (mW/g) |                     |                   |                 | Plot<br>No. |
|-------------------------------------|------------|------------|-------------------|--------------|--------------------------------|------------------|----------------------------|------------------------------|---------------------|-------------------|-----------------|-------------|
|                                     |            |            |                   |              |                                |                  |                            | Measured<br>SAR1g            | Power<br>Drift (dB) | Scaling<br>Factor | Report<br>SAR1g |             |
| Head SAR (QPSK)                     |            |            |                   |              |                                |                  |                            |                              |                     |                   |                 |             |
| Left Cheek                          | standard   | 1:1.58     | 1                 | 99           | 38000/2595                     | 18.13            | 17.38                      | 0.211                        | -0.030              | 1.19              | 0.250           | /           |
| Left Tilt                           | standard   | 1:1.58     | 1                 | 99           | 38000/2595                     | 18.13            | 17.38                      | 0.172                        | -0.050              | 1.19              | 0.204           | /           |
| Right Cheek                         | standard   | 1:1.58     | 1                 | 99           | 38000/2595                     | 18.13            | 17.38                      | 0.294                        | 0.033               | 1.19              | 0.349           | /           |
| Right Tilt                          | standard   | 1:1.58     | 1                 | 99           | 38000/2595                     | 18.13            | 17.38                      | 0.295                        | 0.050               | 1.19              | 0.350           | /           |
| Left Cheek                          | standard   | 1:1.58     | 50%               | 50           | 37850/2580                     | 18.13            | 17.32                      | 0.182                        | -0.022              | 1.20              | 0.219           | /           |
| Left Tilt                           | standard   | 1:1.58     | 50%               | 50           | 37850/2580                     | 18.13            | 17.32                      | 0.170                        | -0.030              | 1.20              | 0.205           | /           |
| Right Cheek                         | standard   | 1:1.58     | 50%               | 50           | 37850/2580                     | 18.13            | 17.32                      | 0.298                        | -0.041              | 1.20              | 0.359           | /           |
| Right Tilt                          | standard   | 1:1.58     | 50%               | 50           | 37850/2580                     | 18.13            | 17.32                      | 0.282                        | 0.035               | 1.20              | 0.339           | /           |
| Right Cheek                         | Standard   | 1:1.58     | 1                 | 99           | 37850/2580(<br>PCC)            | 18.13            | 17.08                      | 0.264                        | -0.021              | 1.27              | 0.336           | /           |
|                                     |            |            | 1                 | 0            | 38048/2599.<br>8(SCC)          |                  |                            |                              |                     |                   |                 | /           |
| Right Cheek                         | Battery2   | 1:1.58     | 50%               | 50           | 37850/2580                     | 18.13            | 17.32                      | 0.295                        | -0.037              | 1.20              | 0.355           | /           |
| Body-worn SAR (QPSK, Distance 15mm) |            |            |                   |              |                                |                  |                            |                              |                     |                   |                 |             |
| Back Side                           | standard   | 1:1.58     | 1                 | 0            | 37850/2580                     | 22.63            | 22.00                      | 0.059                        | 0.047               | 1.16              | 0.068           | /           |
| Front Side                          | standard   | 1:1.58     | 1                 | 0            | 37850/2580                     | 22.63            | 22.00                      | 0.047                        | 0.070               | 1.16              | 0.055           | /           |
| Back Side                           | standard   | 1:1.58     | 50%               | 0            | 38000/2595                     | 21.63            | 21.02                      | 0.048                        | 0.101               | 1.15              | 0.055           | /           |
| Front Side                          | standard   | 1:1.58     | 50%               | 0            | 38000/2595                     | 21.63            | 21.02                      | 0.039                        | 0.104               | 1.15              | 0.044           | /           |
| Back Side                           | Standard   | 1:1.58     | 1                 | 99           | 37850/2580(<br>PCC)            | 22.63            | 21.18                      | 0.042                        | 0.032               | 1.40              | 0.059           | /           |
|                                     |            |            | 1                 | 0            | 38048/2599.<br>8(SCC)          |                  |                            |                              |                     |                   |                 | /           |
| Back Side                           | Battery2   | 1:1.58     | 1                 | 0            | 37850/2580                     | 22.63            | 22.00                      | 0.052                        | 0.039               | 1.16              | 0.060           | /           |
| Hotspot SAR(QPSK, Distance 10mm)    |            |            |                   |              |                                |                  |                            |                              |                     |                   |                 |             |
| Back Side                           | standard   | 1:1.58     | 1                 | 0            | 37850/2580                     | 22.63            | 22.00                      | 0.215                        | -0.061              | 1.16              | 0.249           | /           |
| Front Side                          | standard   | 1:1.58     | 1                 | 0            | 37850/2580                     | 22.63            | 22.00                      | 0.129                        | 0.092               | 1.16              | 0.149           | /           |
| Left Edge                           | standard   | 1:1.58     | 1                 | 0            | 37850/2580                     | 22.63            | 22.00                      | 0.076                        | 0.067               | 1.16              | 0.088           | /           |
| Right Edge                          | N/A        | N/A        | N/A               | N/A          | N/A                            | N/A              | N/A                        | N/A                          | N/A                 | N/A               | N/A             | N/A         |
| Top Edge                            | standard   | 1:1.58     | 1                 | 0            | 37850/2580                     | 22.63            | 22.00                      | 0.233                        | 0.140               | 1.16              | 0.269           | /           |
| Bottom Edge                         | N/A        | N/A        | N/A               | N/A          | N/A                            | N/A              | N/A                        | N/A                          | N/A                 | N/A               | N/A             | N/A         |
| Back Side                           | standard   | 1:1.58     | 50%               | 0            | 38000/2595                     | 21.63            | 21.02                      | 0.209                        | 0.049               | 1.15              | 0.241           | /           |
| Front Side                          | standard   | 1:1.58     | 50%               | 0            | 38000/2595                     | 21.63            | 21.02                      | 0.105                        | 0.037               | 1.15              | 0.121           | /           |
| Left Edge                           | standard   | 1:1.58     | 50%               | 0            | 38000/2595                     | 21.63            | 21.02                      | 0.069                        | 0.087               | 1.15              | 0.079           | /           |
| Right Edge                          | N/A        | N/A        | N/A               | N/A          | N/A                            | N/A              | N/A                        | N/A                          | N/A                 | N/A               | N/A             | N/A         |
| Top Edge                            | standard   | 1:1.58     | 50%               | 0            | 38000/2595                     | 21.63            | 21.02                      | 0.181                        | 0.060               | 1.15              | 0.208           | /           |

|             |          |        |     |     |                   |       |       |       |       |      |       |     |
|-------------|----------|--------|-----|-----|-------------------|-------|-------|-------|-------|------|-------|-----|
| Bottom Edge | N/A      | N/A    | N/A | N/A | N/A               | N/A   | N/A   | N/A   | N/A   | N/A  | N/A   | N/A |
| Back Side   | Standard | 1:1.58 | 1   | 99  | 37850/2580(PCC)   | 22.63 | 21.18 | 0.189 | 0.040 | 1.40 | 0.264 | /   |
|             |          |        | 1   | 0   | 38048/2599.8(SCC) |       |       |       |       |      |       | /   |
| Top Edge    | Battery2 | 1:1.58 | 1   | 0   | 37850/2580        | 22.63 | 22.00 | 0.228 | 0.130 | 1.16 | 0.264 | /   |

Note: 1. The value with blue color is the maximum SAR Value of each test band.

2. For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are  $\geq$  50% limit(10g).

### Variant

| Test Position                       | Cover Type | Duty Cycle | RB allocation | RB offset | Channel/<br>Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No |
|-------------------------------------|------------|------------|---------------|-----------|-----------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|---------|
|                                     |            |            |               |           |                             |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |         |
| Head SAR (QPSK)                     |            |            |               |           |                             |               |                      |                              |                  |                |              |         |
| Right Cheek                         | standard   | 1:1.58     | 50%           | 50        | 37850/2580                  | 18.13         | 17.32                | 0.314                        | -0.043           | 1.20           | 0.378        | 97      |
| Right Cheek                         | SIM2       | 1:1.58     | 50%           | 50        | 37850/2580                  | 18.13         | 17.32                | 0.279                        | -0.084           | 1.20           | 0.336        | /       |
| Body-worn SAR (QPSK, Distance 15mm) |            |            |               |           |                             |               |                      |                              |                  |                |              |         |
| Back Side                           | standard   | 1:1.58     | 1             | 0         | 37850/2580                  | 22.63         | 22.00                | 0.063                        | 0.069            | 1.16           | 0.073        | 98      |
| Back Side                           | SIM2       | 1:1.58     | 1             | 0         | 37850/2580                  | 22.63         | 22.00                | 0.052                        | 0.027            | 1.16           | 0.060        | /       |
| Hotspot SAR(QPSK, Distance 10mm)    |            |            |               |           |                             |               |                      |                              |                  |                |              |         |
| Top Edge                            | standard   | 1:1.58     | 1             | 0         | 37850/2580                  | 22.63         | 22.00                | 0.240                        | -0.020           | 1.16           | 0.277        | 99      |
| Top Edge                            | SIM2       | 1:1.58     | 1             | 0         | 37850/2580                  | 22.63         | 22.00                | 0.215                        | 0.099            | 1.16           | 0.249        | /       |

Note: 1. The value with blue color is the maximum SAR Value of each test band.

**Table 36: LTE Band 41 (20MHz, Second-antenna)**
**Original**

| Test Position                       | Cover Type | Duty Cycle | RB alloc<br>ation | RB offset | Channel/<br>Frequency<br>(MHz) | Tune-up<br>(dBm) | Measured<br>power<br>(dBm) | Limit of SAR 1.6 W/kg (mW/g) |                     |                   |                 | Plot<br>No. |
|-------------------------------------|------------|------------|-------------------|-----------|--------------------------------|------------------|----------------------------|------------------------------|---------------------|-------------------|-----------------|-------------|
|                                     |            |            |                   |           |                                |                  |                            | Measured<br>SAR1g            | Power<br>Drift (dB) | Scaling<br>Factor | Report<br>SAR1g |             |
| Head SAR (QPSK)                     |            |            |                   |           |                                |                  |                            |                              |                     |                   |                 |             |
| Left Cheek                          | standard   | 1:1.58     | 1                 | 50        | 40185/2549.5                   | 18.13            | 17.15                      | 0.198                        | 0.110               | 1.25              | 0.248           | /           |
| Left Tilt                           | standard   | 1:1.58     | 1                 | 50        | 40185/2549.5                   | 18.13            | 17.15                      | 0.183                        | 0.010               | 1.25              | 0.229           | /           |
| Right Cheek                         | standard   | 1:1.58     | 1                 | 50        | 40185/2549.5                   | 18.13            | 17.15                      | 0.314                        | 0.050               | 1.25              | 0.393           | /           |
| Right Tilt                          | standard   | 1:1.58     | 1                 | 50        | 40185/2549.5                   | 18.13            | 17.15                      | 0.328                        | 0.000               | 1.25              | 0.411           | /           |
| Left Cheek                          | standard   | 1:1.58     | 50%               | 50        | 40185/2549.5                   | 18.13            | 17.09                      | 0.218                        | -0.150              | 1.27              | 0.277           | /           |
| Left Tilt                           | standard   | 1:1.58     | 50%               | 50        | 40185/2549.5                   | 18.13            | 17.09                      | 0.206                        | -0.090              | 1.27              | 0.261           | /           |
| Right Cheek                         | standard   | 1:1.58     | 50%               | 50        | 40185/2549.5                   | 18.13            | 17.09                      | 0.311                        | 0.130               | 1.27              | 0.395           | /           |
| Right Tilt                          | standard   | 1:1.58     | 50%               | 50        | 40185/2549.5                   | 18.13            | 17.09                      | 0.341                        | 0.110               | 1.27              | 0.433           | /           |
| Right Cheek                         | Standard   | 1:1.58     | 1                 | 99        | 40140/2545(<br>PCC)            | 17.13            | 16.65                      | 0.246                        | 0.098               | 1.12              | 0.275           | /           |
|                                     |            |            | 1                 | 0         | 40338/2564.8<br>(SCC)          |                  |                            |                              |                     |                   |                 | /           |
| Right Tilt                          | Battery2   | 1:1.58     | 50%               | 50        | 40185/2549.5                   | 18.13            | 17.09                      | 0.335                        | 0.150               | 1.27              | 0.425           | /           |
| Body-worn SAR (QPSK, Distance 15mm) |            |            |                   |           |                                |                  |                            |                              |                     |                   |                 |             |
| Back Side                           | standard   | 1:1.58     | 1                 | 50        | 40185/2549.5                   | 23.13            | 22.28                      | 0.120                        | 0.026               | 1.21              | 0.146           | /           |
| Front Side                          | standard   | 1:1.58     | 1                 | 50        | 40185/2549.5                   | 23.13            | 22.28                      | 0.070                        | 0.049               | 1.21              | 0.085           | /           |
| Back Side                           | standard   | 1:1.58     | 50%               | 50        | 40185/2549.5                   | 23.13            | 21.26                      | 0.110                        | 0.030               | 1.54              | 0.169           | /           |
| Front Side                          | standard   | 1:1.58     | 50%               | 50        | 40185/2549.5                   | 23.13            | 21.26                      | 0.065                        | 0.108               | 1.54              | 0.099           | /           |
| Back Side                           | Standard   | 1:1.58     | 1                 | 99        | 40140/2545(<br>PCC)            | 22.13            | 21.55                      | 0.078                        | 0.060               | 1.14              | 0.089           | /           |
|                                     |            |            | 1                 | 0         | 40338/2564.8<br>(SCC)          |                  |                            |                              |                     |                   |                 | /           |
| Back Side                           | Battery2   | 1:1.58     | 50%               | 50        | 40185/2549.5                   | 23.13            | 21.26                      | 0.116                        | 0.021               | 1.54              | 0.178           | /           |
| Hotspot SAR(QPSK, Distance 10mm)    |            |            |                   |           |                                |                  |                            |                              |                     |                   |                 |             |
| Back Side                           | standard   | 1:1.58     | 1                 | 50        | 40185/2549.5                   | 23.13            | 22.28                      | 0.249                        | 0.069               | 1.21              | 0.302           | /           |
| Front Side                          | standard   | 1:1.58     | 1                 | 50        | 40185/2549.5                   | 23.13            | 22.28                      | 0.115                        | 0.190               | 1.21              | 0.140           | /           |
| Left Edge                           | standard   | 1:1.58     | 1                 | 50        | 40185/2549.5                   | 23.13            | 22.28                      | 0.087                        | 0.110               | 1.21              | 0.106           | /           |
| Right Edge                          | N/A        | N/A        | N/A               | N/A       | N/A                            | N/A              | N/A                        | N/A                          | N/A                 | N/A               | N/A             | N/A         |
| Top Edge                            | standard   | 1:1.58     | 1                 | 50        | 40185/2549.5                   | 23.13            | 22.28                      | 0.244                        | -0.160              | 1.21              | 0.296           | /           |
| Bottom Edge                         | N/A        | N/A        | N/A               | N/A       | N/A                            | N/A              | N/A                        | N/A                          | N/A                 | N/A               | N/A             | N/A         |
| Back Side                           | standard   | 1:1.58     | 50%               | 50        | 40185/2549.5                   | 23.13            | 21.26                      | 0.239                        | 0.076               | 1.54              | 0.367           | /           |
| Front Side                          | standard   | 1:1.58     | 50%               | 50        | 40185/2549.5                   | 23.13            | 21.26                      | 0.111                        | 0.065               | 1.54              | 0.171           | /           |
| Left Edge                           | standard   | 1:1.58     | 50%               | 50        | 40185/2549.5                   | 23.13            | 21.26                      | 0.074                        | 0.012               | 1.54              | 0.114           | /           |
| Right Edge                          | N/A        | N/A        | N/A               | N/A       | N/A                            | N/A              | N/A                        | N/A                          | N/A                 | N/A               | N/A             | N/A         |
| Top Edge                            | standard   | 1:1.58     | 50%               | 50        | 40185/2549.5                   | 23.13            | 21.26                      | 0.239                        | 0.080               | 1.54              | 0.367           | /           |



|             |          |        |     |     |                   |       |       |       |       |      |       |     |
|-------------|----------|--------|-----|-----|-------------------|-------|-------|-------|-------|------|-------|-----|
| Bottom Edge | N/A      | N/A    | N/A | N/A | N/A               | N/A   | N/A   | N/A   | N/A   | N/A  | N/A   | N/A |
| Back Side   | Standard | 1:1.58 | 1   | 99  | 40140/2545(PCC)   | 22.13 | 21.55 | 0.168 | 0.043 | 1.14 | 0.192 | /   |
|             |          |        | 1   | 0   | 40338/2564.8(SCC) |       |       |       |       |      |       | /   |
| Back Side   | Battery2 | 1:1.58 | 50% | 50  | 40185/2549.5      | 23.13 | 21.26 | 0.243 | 0.057 | 1.54 | 0.373 | /   |

Note: 1. The value with blue color is the maximum SAR Value of each test band.

2. For QPSK with 100% RB allocation, SAR is required when and the highest reported SAR for 1 RB and 50% RB allocation in are  $\geq$  50% limit(10g).

### Variant

| Test Position                       | Cover Type | Duty Cycle | RB allocation | RB offset | Channel/<br>Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |              | Plot No |
|-------------------------------------|------------|------------|---------------|-----------|-----------------------------|---------------|----------------------|------------------------------|------------------|----------------|--------------|---------|
|                                     |            |            |               |           |                             |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR1g |         |
| Head SAR (QPSK)                     |            |            |               |           |                             |               |                      |                              |                  |                |              |         |
| Right Tilt                          | standard   | 1:1.58     | 50%           | 50        | 40185/2549.5                | 18.13         | 17.09                | 0.368                        | -0.021           | 1.27           | 0.467        | 100     |
| Right Tilt                          | SIM2       | 1:1.58     | 50%           | 50        | 40185/2549.5                | 18.13         | 17.09                | 0.352                        | 0.083            | 1.27           | 0.447        | /       |
| Body-worn SAR (QPSK, Distance 15mm) |            |            |               |           |                             |               |                      |                              |                  |                |              |         |
| Back Side                           | Battery2   | 1:1.58     | 50%           | 50        | 40185/2549.5                | 23.13         | 21.26                | 0.121                        | 0.161            | 1.54           | 0.186        | 101     |
| Back Side                           | SIM2       | 1:1.58     | 50%           | 50        | 40185/2549.5                | 23.13         | 21.26                | 0.098                        | 0.043            | 1.54           | 0.151        | /       |
| Hotspot SAR(QPSK, Distance 10mm)    |            |            |               |           |                             |               |                      |                              |                  |                |              |         |
| Back Side                           | Battery2   | 1:1.58     | 50%           | 50        | 40185/2549.5                | 23.13         | 21.26                | 0.253                        | 0.103            | 1.54           | 0.389        | 102     |
| Back Side                           | SIM2       | 1:1.58     | 50%           | 50        | 40185/2549.5                | 23.13         | 21.26                | 0.218                        | -0.063           | 1.54           | 0.335        | /       |

Note: 1. The value with blue color is the maximum SAR Value of each test band.

**Table 37: Wi-Fi 2.4G (Ant 1-SISO)**
**Original**

| Test Position                                                                  | Cover Type | Sensor | Mode    | Duty Cycle | Channel/<br>Frequency (MHz) | Tune-up<br>dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                  |                |               | Plot No. |
|--------------------------------------------------------------------------------|------------|--------|---------|------------|-----------------------------|-----------------|----------------------|------------------------------|------------------|------------------|----------------|---------------|----------|
|                                                                                |            |        |         |            |                             |                 |                      | Area Scan SAR 1g             | Zoom Scan SAR 1g | Power Drift (dB) | Scaling Factor | Report SAR 1g |          |
| Head SAR                                                                       |            |        |         |            |                             |                 |                      |                              |                  |                  |                |               |          |
| Left Cheek                                                                     | standard   | off    | 802.11b | 99.9%      | 6/2437                      | 13.00           | 12.85                | 0.205                        | 0.273            | -0.021           | 1.04           | 0.283         | /        |
| Left Tilt                                                                      | standard   | off    | 802.11b | 99.9%      | 6/2437                      | 13.00           | 12.85                | 0.229                        | 0.301            | 0.110            | 1.04           | 0.312         | /        |
| Right Cheek                                                                    | standard   | off    | 802.11b | 99.9%      | 6/2437                      | 13.00           | 12.85                | 0.115                        | 0.122            | 0.120            | 1.04           | 0.126         | /        |
| Right Tilt                                                                     | standard   | off    | 802.11b | 99.9%      | 6/2437                      | 13.00           | 12.85                | 0.141                        | 0.153            | 0.130            | 1.04           | 0.159         | /        |
| Left Tilt                                                                      | Battery2   | off    | 802.11b | 99.9%      | 6/2437                      | 13.00           | 12.85                | 0.218                        | 0.297            | 0.130            | 1.04           | 0.308         | /        |
| Body-worn SAR (Distance 15mm)                                                  |            |        |         |            |                             |                 |                      |                              |                  |                  |                |               |          |
| Back Side                                                                      | standard   | off    | 802.11b | 100.0%     | 6/2437                      | 18.00           | 16.78                | 0.090                        | 0.092            | 0.120            | 1.32           | 0.121         | /        |
| Front Side                                                                     | standard   | off    | 802.11b | 100.0%     | 6/2437                      | 18.00           | 16.78                | 0.056                        | 0.056            | 0.069            | 1.32           | 0.074         | /        |
| Back Side                                                                      | Battery2   | off    | 802.11b | 100.0%     | 6/2437                      | 18.00           | 16.78                | 0.075                        | 0.087            | 0.110            | 1.33           | 0.115         | /        |
| Hotspot SAR(Distance 10mm)                                                     |            |        |         |            |                             |                 |                      |                              |                  |                  |                |               |          |
| Back Side                                                                      | standard   | off    | 802.11b | 100.0%     | 6/2437                      | 18.00           | 16.78                | 0.145                        | 0.147            | 0.090            | 1.32           | 0.195         | /        |
| Front Side                                                                     | standard   | off    | 802.11b | 100.0%     | 6/2437                      | 18.00           | 16.78                | 0.161                        | 0.161            | 0.080            | 1.32           | 0.213         | /        |
| Left Edge                                                                      | N/A        | N/A    | N/A     | N/A        | N/A                         | N/A             | N/A                  | N/A                          | N/A              | N/A              | N/A            | N/A           | N/A      |
| Right Edge                                                                     | standard   | off    | 802.11b | 100.0%     | 6/2437                      | 18.00           | 16.78                | 0.131                        | 0.134            | 0.034            | 1.33           | 0.178         | /        |
| Top Edge                                                                       | standard   | off    | 802.11b | 100.0%     | 6/2437                      | 18.00           | 16.78                | 0.211                        | 0.217            | 0.070            | 1.33           | 0.288         | /        |
| Bottom Edge                                                                    | N/A        | N/A    | N/A     | N/A        | N/A                         | N/A             | N/A                  | N/A                          | N/A              | N/A              | N/A            | N/A           | N/A      |
| Top Edge                                                                       | Battery2   | off    | 802.11b | 100.0%     | 6/2437                      | 18.00           | 16.78                | 0.209                        | 0.212            | 0.055            | 1.33           | 0.281         | /        |
| Note: 1. The value with blue color is the maximum SAR Value of each test band. |            |        |         |            |                             |                 |                      |                              |                  |                  |                |               |          |

Note: 1. The value with blue color is the maximum SAR Value of each test band.

| MAX Adjusted SAR |               |                        |                                       |                             |                     |                |                                   |
|------------------|---------------|------------------------|---------------------------------------|-----------------------------|---------------------|----------------|-----------------------------------|
| Mode             | Test Position | Channel/Frequency(MHz) | MAX Reported SAR <sub>1g</sub> (W/kg) | 802.11b Tune-up limit (dBm) | Tune-up limit (dBm) | Scaling Factor | Adjusted SAR <sub>1g</sub> (W/kg) |
| 802.11g          | Left Tilt     | 6/2437                 | 0.312                                 | 13.00                       | 13.00               | 1.00           | 0.312                             |
| 802.11n HT20     | Left Tilt     | 6/2437                 | 0.312                                 | 13.00                       | 13.00               | 1.00           | 0.312                             |
| 802.11n HT40     | Left Tilt     | 6/2437                 | 0.312                                 | 13.00                       | 13.00               | 1.00           | 0.312                             |
| 802.11g          | Top Edge      | 6/2437                 | 0.288                                 | 18.00                       | 18.00               | 1.00           | 0.288                             |
| 802.11n HT20     | Top Edge      | 6/2437                 | 0.288                                 | 18.00                       | 17.00               | 0.79           | 0.228                             |
| 802.11n HT40     | Top Edge      | 6/2437                 | 0.288                                 | 18.00                       | 15.50               | 0.56           | 0.161                             |

Note:

SAR is not required for OFDM when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is  $\leq 1.2$  W/kg.

**Variant**

| Test Position                                                                  | Cover Type | Sensor | Mode    | Duty Cycle | Channel/<br>Frequency (MHz) | Tune-up dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                  |                |               | Plot No. |
|--------------------------------------------------------------------------------|------------|--------|---------|------------|-----------------------------|--------------|----------------------|------------------------------|------------------|------------------|----------------|---------------|----------|
|                                                                                |            |        |         |            |                             |              |                      | Area Scan SAR 1g             | Zoom Scan SAR 1g | Power Drift (dB) | Scaling Factor | Report SAR 1g |          |
| Head SAR                                                                       |            |        |         |            |                             |              |                      |                              |                  |                  |                |               |          |
| Left Tilt                                                                      | standard   | off    | 802.11b | 99.9%      | 6/2437                      | 13.00        | 12.85                | 0.226                        | 0.235            | 0.020            | 1.04           | 0.244         | 103      |
| Body-worn SAR (Distance 15mm)                                                  |            |        |         |            |                             |              |                      |                              |                  |                  |                |               |          |
| Back Side                                                                      | standard   | off    | 802.11b | 100.0%     | 6/2437                      | 18.00        | 16.78                | 0.098                        | 0.098            | 0.058            | 1.33           | 0.130         | 104      |
| Hotspot SAR(Distance 10mm)                                                     |            |        |         |            |                             |              |                      |                              |                  |                  |                |               |          |
| Top Edge                                                                       | standard   | off    | 802.11b | 100.0%     | 6/2437                      | 18.00        | 16.78                | 0.154                        | 0.153            | -0.040           | 1.33           | 0.203         | 105      |
| Note: 1. The value with blue color is the maximum SAR Value of each test band. |            |        |         |            |                             |              |                      |                              |                  |                  |                |               |          |

**Table 38: Wi-Fi 2.4G (Ant 2-SISO)**
**Original**

| Test Position                                                                  | Cover Type | Sensor | Mode    | Duty Cycle | Channel/<br>Frequency (MHz) | Tune-up dBm | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                  |                |               | Plot No. |
|--------------------------------------------------------------------------------|------------|--------|---------|------------|-----------------------------|-------------|----------------------|------------------------------|------------------|------------------|----------------|---------------|----------|
|                                                                                |            |        |         |            |                             |             |                      | Area Scan SAR 1g             | Zoom Scan SAR 1g | Power Drift (dB) | Scaling Factor | Report SAR 1g |          |
| Head SAR                                                                       |            |        |         |            |                             |             |                      |                              |                  |                  |                |               |          |
| Left Cheek                                                                     | standard   | off    | 802.11b | 99.9%      | 1/2412                      | 13.00       | 12.67                | 0.006                        | 0.091            | 0.021            | 1.08           | 0.098         | /        |
| Left Tilt                                                                      | standard   | off    | 802.11b | 99.9%      | 1/2412                      | 13.00       | 12.67                | 0.010                        | 0.017            | 0.012            | 1.08           | 0.018         | /        |
| Right Cheek                                                                    | standard   | off    | 802.11b | 99.9%      | 1/2412                      | 13.00       | 12.67                | 0.014                        | 0.015            | 0.022            | 1.08           | 0.016         | /        |
| Right Tilt                                                                     | standard   | off    | 802.11b | 99.9%      | 1/2412                      | 13.00       | 12.67                | 0.010                        | 0.014            | 0.022            | 1.08           | 0.015         | /        |
| Left Tilt                                                                      | Battery2   | off    | 802.11b | 99.9%      | 1/2412                      | 13.00       | 12.67                | 0.017                        | 0.088            | 0.025            | 1.08           | 0.095         | /        |
| Body-worn SAR (Distance 15mm)                                                  |            |        |         |            |                             |             |                      |                              |                  |                  |                |               |          |
| Back Side                                                                      | standard   | off    | 802.11b | 100.0%     | 9/2452                      | 17.00       | 15.85                | 0.046                        | 0.057            | 0.034            | 1.30           | 0.074         | /        |
| Front Side                                                                     | standard   | off    | 802.11b | 100.0%     | 9/2452                      | 17.00       | 15.85                | 0.008                        | 0.010            | 0.028            | 1.30           | 0.014         | /        |
| Back Side                                                                      | Battery2   | off    | 802.11b | 100.0%     | 9/2452                      | 17.00       | 15.85                | 0.041                        | 0.052            | 0.033            | 1.30           | 0.068         | /        |
| Hotspot SAR(Distance 10mm)                                                     |            |        |         |            |                             |             |                      |                              |                  |                  |                |               |          |
| Back Side                                                                      | standard   | off    | 802.11b | 100.0%     | 9/2452                      | 17.00       | 15.85                | 0.150                        | 0.165            | 0.027            | 1.30           | 0.215         | /        |
| Front Side                                                                     | standard   | off    | 802.11b | 100.0%     | 9/2452                      | 17.00       | 15.85                | 0.004                        | 0.005            | 0.013            | 1.30           | 0.007         | /        |
| Left Edge                                                                      | standard   | off    | 802.11b | 100.0%     | 9/2452                      | 17.00       | 15.85                | 0.067                        | 0.065            | 0.012            | 1.30           | 0.085         | /        |
| Right Edge                                                                     | N/A        | N/A    | N/A     | N/A        | N/A                         | N/A         | N/A                  | N/A                          | N/A              | N/A              | N/A            | N/A           | N/A      |
| Top Edge                                                                       | standard   | off    | 802.11b | 100.0%     | 9/2452                      | 17.00       | 15.85                | 0.006                        | 0.006            | 0.034            | 1.30           | 0.008         | /        |
| Bottom Edge                                                                    | N/A        | N/A    | N/A     | N/A        | N/A                         | N/A         | N/A                  | N/A                          | N/A              | N/A              | N/A            | N/A           | N/A      |
| Back Side                                                                      | Battery2   | off    | 802.11b | 100.0%     | 9/2452                      | 17.00       | 15.85                | 0.158                        | 0.161            | 0.023            | 1.30           | 0.210         | /        |
| Note: 1. The value with blue color is the maximum SAR Value of each test band. |            |        |         |            |                             |             |                      |                              |                  |                  |                |               |          |

| MAX Adjusted SAR                                                                                                                                                                |               |                        |                                       |                             |                     |                |                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------------|---------------------------------------|-----------------------------|---------------------|----------------|-----------------------------------|
| Mode                                                                                                                                                                            | Test Position | Channel/Frequency(MHz) | MAX Reported SAR <sub>1g</sub> (W/kg) | 802.11b Tune-up limit (dBm) | Tune-up limit (dBm) | Scaling Factor | Adjusted SAR <sub>1g</sub> (W/kg) |
| 802.11g                                                                                                                                                                         | Left Cheek    | 1/2412                 | 0.098                                 | 13.00                       | 13.00               | 1.00           | 0.098                             |
| 802.11n HT20                                                                                                                                                                    | Left Cheek    | 1/2412                 | 0.098                                 | 13.00                       | 13.00               | 1.00           | 0.098                             |
| 802.11n HT40                                                                                                                                                                    | Left Cheek    | 1/2412                 | 0.098                                 | 13.00                       | 13.00               | 1.00           | 0.098                             |
| 802.11g                                                                                                                                                                         | Back Side     | 9/2452                 | 0.215                                 | 17.00                       | 17.00               | 1.00           | 0.215                             |
| 802.11n HT20                                                                                                                                                                    | Back Side     | 9/2452                 | 0.215                                 | 17.00                       | 16.00               | 0.79           | 0.171                             |
| 802.11n HT40                                                                                                                                                                    | Back Side     | 9/2452                 | 0.215                                 | 17.00                       | 14.50               | 0.56           | 0.121                             |
| Note:                                                                                                                                                                           |               |                        |                                       |                             |                     |                |                                   |
| SAR is not required for OFDM when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg. |               |                        |                                       |                             |                     |                |                                   |

**Variant**

| Test Position                                                                  | Cover Type | Sensor | Mode    | Duty Cycle | Channel/ Frequency (MHz) | Tune-up dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                  |                |               | Plot No. |
|--------------------------------------------------------------------------------|------------|--------|---------|------------|--------------------------|--------------|----------------------|------------------------------|------------------|------------------|----------------|---------------|----------|
|                                                                                |            |        |         |            |                          |              |                      | Area Scan SAR 1g             | Zoom Scan SAR 1g | Power Drift (dB) | Scaling Factor | Report SAR 1g |          |
| Head SAR                                                                       |            |        |         |            |                          |              |                      |                              |                  |                  |                |               |          |
| Left Cheek                                                                     | standard   | off    | 802.11b | 99.9%      | 1/2412                   | 13.00        | 12.67                | 0.010                        | 0.074            | 0.020            | 1.08           | 0.080         | 106      |
| Body-worn SAR (Distance 15mm)                                                  |            |        |         |            |                          |              |                      |                              |                  |                  |                |               |          |
| Back Side                                                                      | standard   | off    | 802.11b | 100.0%     | 9/2452                   | 17.00        | 15.85                | 0.041                        | 0.045            | 0.110            | 1.30           | 0.058         | 107      |
| Hotspot SAR(Distance 10mm)                                                     |            |        |         |            |                          |              |                      |                              |                  |                  |                |               |          |
| Back Side                                                                      | standard   | off    | 802.11b | 100.0%     | 9/2452                   | 17.00        | 15.85                | 0.104                        | 0.124            | 0.062            | 1.30           | 0.162         | 108      |
| Note: 1. The value with blue color is the maximum SAR Value of each test band. |            |        |         |            |                          |              |                      |                              |                  |                  |                |               |          |

Table 39: Wi-Fi 2.4G (Ant 1-MIMO)

Original

| Test Position                                                                  | Cover Type | Sensor | Mode         | Duty Cycle | Channel/<br>Frequency (MHz) | Tune-up dBm | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                   |                  |                |                | Plot No. |
|--------------------------------------------------------------------------------|------------|--------|--------------|------------|-----------------------------|-------------|----------------------|------------------------------|-------------------|------------------|----------------|----------------|----------|
|                                                                                |            |        |              |            |                             |             |                      | Area Scan SAR 1g             | Zoom Scan SAR 1g  | Power Drift (dB) | Scaling Factor | Report SAR 1g  |          |
| Head SAR                                                                       |            |        |              |            |                             |             |                      |                              |                   |                  |                |                |          |
| Left Cheek                                                                     | standard   | off    | 802.11n HT40 | 97.3%      | 6/2437                      | 13.00       | 11.83                | 0.137                        | 0.219             | 0.020            | 1.35           | 0.295          | /        |
| Left Tilt                                                                      | standard   | off    | 802.11n HT40 | 97.3%      | 6/2437                      | 13.00       | 11.83                | 0.191                        | 0.264             | 0.130            | 1.35           | 0.355          | /        |
| Right Cheek                                                                    | standard   | off    | 802.11n HT40 | 97.3%      | 6/2437                      | 13.00       | 11.83                | 0.097                        | 0.102             | 0.090            | 1.35           | 0.137          | /        |
| Right Tilt                                                                     | standard   | off    | 802.11n HT40 | 97.3%      | 6/2437                      | 13.00       | 11.83                | 0.094                        | 0.117             | 0.075            | 1.35           | 0.157          | /        |
| Left Tilt                                                                      | Battery2   | off    | 802.11n HT40 | 97.3%      | 6/2437                      | 13.00       | 11.83                | 0.179                        | 0.257             | 0.054            | 1.35           | 0.346          | /        |
| Body-worn SAR (Distance 15mm)                                                  |            |        |              |            |                             |             |                      |                              |                   |                  |                |                |          |
| Back Side                                                                      | standard   | off    | 802.11g      | 99.1%      | 6/2437                      | 18.00       | 16.42                | 0.054                        | 0.055             | 0.089            | 1.45           | 0.080          | /        |
| Front Side                                                                     | standard   | off    | 802.11g      | 99.1%      | 6/2437                      | 18.00       | 16.42                | 0.068                        | 0.069             | 0.075            | 1.45           | 0.100          | /        |
| Front Side                                                                     | Battery2   | off    | 802.11g      | 99.1%      | 6/2437                      | 18.00       | 16.42                | 0.046                        | 0.063             | 0.047            | 1.45           | 0.091          | /        |
| Test Position                                                                  | Cover Type | Sensor | Mode         | Duty Cycle | Channel/<br>Frequency (MHz) | Tune-up dBm | Test Position        | Limit of SAR 4W/kg (mW/g)    |                   |                  |                |                | Plot No. |
|                                                                                |            |        |              |            |                             |             |                      | Area Scan SAR 10g            | Zoom Scan SAR 10g | Power Drift (dB) | Scaling Factor | Report SAR 10g |          |
| Product Specific 10-g SAR (Distance 0mm)                                       |            |        |              |            |                             |             |                      |                              |                   |                  |                |                |          |
| Back Side                                                                      | standard   | off    | 802.11g      | 99.1%      | 6/2437                      | 18.00       | 16.42                | 0.289                        | 0.287             | 0.090            | 1.45           | 0.417          | /        |
| Front Side                                                                     | standard   | off    | 802.11g      | 99.1%      | 6/2437                      | 18.00       | 16.42                | 0.309                        | 0.312             | 0.089            | 1.45           | 0.453          | /        |
| Left Edge                                                                      | N/A        | N/A    | N/A          | N/A        | N/A                         | N/A         | N/A                  | N/A                          | N/A               | N/A              | N/A            | N/A            | N/A      |
| Right Edge                                                                     | standard   | off    | 802.11g      | 99.1%      | 6/2437                      | 18.00       | 16.42                | 0.314                        | 0.318             | 0.089            | 1.45           | 0.462          | /        |
| Top Edge                                                                       | standard   | off    | 802.11g      | 99.1%      | 6/2437                      | 18.00       | 16.42                | 0.726                        | 0.761             | 0.030            | 1.45           | 1.105          | /        |
| Bottom Edge                                                                    | N/A        | N/A    | N/A          | N/A        | N/A                         | N/A         | N/A                  | N/A                          | N/A               | N/A              | N/A            | N/A            | N/A      |
| Top Edge                                                                       | Battery2   | off    | 802.11g      | 99.1%      | 6/2437                      | 18.00       | 16.42                | 0.747                        | 0.758             | 0.036            | 1.45           | 1.100          | /        |
| Note: 1. The value with blue color is the maximum SAR Value of each test band. |            |        |              |            |                             |             |                      |                              |                   |                  |                |                |          |

| MAX Adjusted SAR |               |                            |                                            |                                       |                           |                   |                                         |
|------------------|---------------|----------------------------|--------------------------------------------|---------------------------------------|---------------------------|-------------------|-----------------------------------------|
| Mode             | Test Position | Channel/<br>Frequency(MHz) | MAX<br>ReportedSAR <sub>1g</sub><br>(W/kg) | 802.11n<br>HT40Tune-up<br>limit (dBm) | Tune-up<br>limit<br>(dBm) | Scaling<br>Factor | Adjusted<br>SAR <sub>1g</sub><br>(W/kg) |
| 802.11g          | Left Tilt     | 6/2437                     | 0.355                                      | 13.00                                 | 13.00                     | 1.00              | 0.355                                   |
| 802.11n HT20     | Left Tilt     | 6/2437                     | 0.355                                      | 13.00                                 | 13.00                     | 1.00              | 0.355                                   |
| Mode             | Test Position | Channel/<br>Frequency(MHz) | MAX<br>ReportedSAR <sub>1g</sub><br>(W/kg) | 802.11g<br>Tune-up<br>limit (dBm)     | Tune-up<br>limit<br>(dBm) | Scaling<br>Factor | Adjusted<br>SAR <sub>1g</sub><br>(W/kg) |
| 802.11n HT20     | Top Edge      | 6/2437                     | 1.105                                      | 18.00                                 | 17.00                     | 0.79              | 0.878                                   |
| 802.11n HT40     | Top Edge      | 6/2437                     | 1.105                                      | 18.00                                 | 15.50                     | 0.56              | 0.621                                   |

Note:  
SAR is not required for OFDM when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is  $\leq 1.2$  W/kg.

### Variant

| Test Position                                                                  | Cover Type | Sensor | Mode         | Duty Cycle | Channel/<br>Frequency (MHz) | Tune-up dBm | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                   |                  |                |                | Plot No. |
|--------------------------------------------------------------------------------|------------|--------|--------------|------------|-----------------------------|-------------|----------------------|------------------------------|-------------------|------------------|----------------|----------------|----------|
|                                                                                |            |        |              |            |                             |             |                      | Area Scan SAR 1g             | Zoom Scan SAR 1g  | Power Drift (dB) | Scaling Factor | Report SAR 1g  |          |
| Head SAR                                                                       |            |        |              |            |                             |             |                      |                              |                   |                  |                |                |          |
| Left Tilt                                                                      | standard   | off    | 802.11n HT40 | 97.3%      | 6/2437                      | 13.00       | 11.83                | 0.217                        | 0.246             | 0.000            | 1.35           | 0.331          | 109      |
| Body-worn SAR (Distance 15mm)                                                  |            |        |              |            |                             |             |                      |                              |                   |                  |                |                |          |
| Front Side                                                                     | standard   | off    | 802.11g      | 99.1%      | 6/2437                      | 18.00       | 16.42                | 0.080                        | 0.072             | 0.066            | 1.45           | 0.105          | 110      |
| Test Position                                                                  | Cover Type | Sensor | Mode         | Duty Cycle | Channel/<br>Frequency (MHz) | Tune-up dBm | Test Position        | Limit of SAR 4W/kg (mW/g)    |                   |                  |                |                | Plot No. |
|                                                                                |            |        |              |            |                             |             |                      | Area Scan SAR 10g            | Zoom Scan SAR 10g | Power Drift (dB) | Scaling Factor | Report SAR 10g |          |
| Product Specific 10-g SAR (Distance 0mm)                                       |            |        |              |            |                             |             |                      |                              |                   |                  |                |                |          |
| Top Edge                                                                       | standard   | off    | 802.11g      | 99.1%      | 6/2437                      | 18.00       | 16.42                | 0.453                        | 0.469             | 0.036            | 1.45           | 0.681          | 111      |
| Note: 1. The value with blue color is the maximum SAR Value of each test band. |            |        |              |            |                             |             |                      |                              |                   |                  |                |                |          |

**Table 40: Wi-Fi 2.4G (Ant 2- MIMO)**
**Original**

| Test Position                                                                  | Cover Type | Sensor | Mode         | Duty Cycle | Channel/<br>Frequency (MHz) | Tune-up dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                   |                  |                |                | Plot No. |
|--------------------------------------------------------------------------------|------------|--------|--------------|------------|-----------------------------|--------------|----------------------|------------------------------|-------------------|------------------|----------------|----------------|----------|
|                                                                                |            |        |              |            |                             |              |                      | Area Scan SAR 1g             | Zoom Scan SAR 1g  | Power Drift (dB) | Scaling Factor | Report SAR 1g  |          |
| Head SAR                                                                       |            |        |              |            |                             |              |                      |                              |                   |                  |                |                |          |
| Left Cheek                                                                     | standard   | off    | 802.11n HT40 | 97.3%      | 5/2432                      | 13.00        | 11.81                | 0.006                        | 0.081             | 0.020            | 1.35           | 0.109          | /        |
| Left Tilt                                                                      | standard   | off    | 802.11n HT40 | 97.3%      | 5/2432                      | 13.00        | 11.81                | 0.009                        | 0.010             | 0.030            | 1.35           | 0.014          | /        |
| Right Cheek                                                                    | standard   | off    | 802.11n HT40 | 97.3%      | 5/2432                      | 13.00        | 11.81                | 0.012                        | 0.011             | 0.063            | 1.35           | 0.014          | /        |
| Right Tilt                                                                     | standard   | off    | 802.11n HT40 | 97.3%      | 5/2432                      | 13.00        | 11.81                | 0.010                        | 0.010             | 0.024            | 1.35           | 0.014          | /        |
| Left Cheek                                                                     | Battery2   | off    | 802.11n HT40 | 97.3%      | 5/2432                      | 13.00        | 11.81                | 0.028                        | 0.077             | 0.036            | 1.35           | 0.104          | /        |
| Body-worn SAR (Distance 15mm)                                                  |            |        |              |            |                             |              |                      |                              |                   |                  |                |                |          |
| Back Side                                                                      | standard   | off    | 802.11g      | 99.1%      | 6/2437                      | 17.00        | 15.84                | 0.040                        | 0.047             | 0.025            | 1.32           | 0.062          | /        |
| Front Side                                                                     | standard   | off    | 802.11g      | 99.1%      | 6/2437                      | 17.00        | 15.84                | 0.006                        | 0.007             | 0.034            | 1.32           | 0.009          | /        |
| Back Side                                                                      | Battery2   | off    | 802.11g      | 99.1%      | 6/2437                      | 17.00        | 15.84                | 0.035                        | 0.043             | 0.028            | 1.32           | 0.057          | /        |
| Test Position                                                                  | Cover Type | Sensor | Mode         | Duty Cycle | Channel/<br>Frequency (MHz) | Tune-up dBm) | Measured power (dBm) | Limit of SAR 4 W/kg (mW/g)   |                   |                  |                |                | Plot No. |
|                                                                                |            |        |              |            |                             |              |                      | Area ScanSAR 10g             | Zoom Scan SAR 10g | Power Drift (dB) | Scaling Factor | Report SAR 10g |          |
| Product Specific 10-g SAR (Distance 0mm)                                       |            |        |              |            |                             |              |                      |                              |                   |                  |                |                |          |
| Back Side                                                                      | standard   | off    | 802.11g      | 99.1%      | 6/2437                      | 17.00        | 15.84                | 0.243                        | 0.335             | -0.036           | 1.32           | 0.441          | /        |
| Front Side                                                                     | standard   | off    | 802.11g      | 99.1%      | 6/2437                      | 17.00        | 15.84                | 0.009                        | 0.009             | 0.013            | 1.32           | 0.012          | /        |
| Left Edge                                                                      | standard   | off    | 802.11g      | 99.1%      | 6/2437                      | 17.00        | 15.84                | 0.112                        | 0.113             | 0.090            | 1.32           | 0.149          | /        |
| Right Edge                                                                     | N/A        | off    | N/A          | N/A        | N/A                         | N/A          | N/A                  | N/A                          | N/A               | N/A              | N/A            | N/A            | N/A      |
| Top Edge                                                                       | standard   | off    | 802.11g      | 99.1%      | 6/2437                      | 17.00        | 15.84                | 0.009                        | 0.009             | 0.076            | 1.32           | 0.012          | /        |
| Bottom Edge                                                                    | N/A        | off    | N/A          | N/A        | N/A                         | N/A          | N/A                  | N/A                          | N/A               | N/A              | N/A            | N/A            | N/A      |
| Back Side                                                                      | Battery2   | off    | 802.11g      | 99.1%      | 6/2437                      | 17.00        | 15.84                | 0.315                        | 0.332             | 0.037            | 1.32           | 0.437          | /        |
| Note: 1. The value with blue color is the maximum SAR Value of each test band. |            |        |              |            |                             |              |                      |                              |                   |                  |                |                |          |



| MAX Adjusted SAR |               |                            |                                            |                                       |                           |                   |                                         |
|------------------|---------------|----------------------------|--------------------------------------------|---------------------------------------|---------------------------|-------------------|-----------------------------------------|
| Mode             | Test Position | Channel/<br>Frequency(MHz) | MAX<br>ReportedSAR <sub>1g</sub><br>(W/kg) | 802.11n<br>HT40Tune-up<br>limit (dBm) | Tune-up<br>limit<br>(dBm) | Scaling<br>Factor | Adjusted<br>SAR <sub>1g</sub><br>(W/kg) |
| 802.11g          | Left Cheek    | 5/2432                     | 0.109                                      | 13.00                                 | 13.00                     | 1.00              | 0.109                                   |
| 802.11n HT20     | Left Cheek    | 5/2432                     | 0.109                                      | 13.00                                 | 13.00                     | 1.00              | 0.109                                   |
| Mode             | Test Position | Channel/<br>Frequency(MHz) | MAX<br>ReportedSAR <sub>1g</sub><br>(W/kg) | 802.11g<br>Tune-up<br>limit (dBm)     | Tune-up<br>limit<br>(dBm) | Scaling<br>Factor | Adjusted<br>SAR <sub>1g</sub><br>(W/kg) |
| 802.11n HT20     | Back Side     | 6/2437                     | 0.441                                      | 17.00                                 | 16.00                     | 0.79              | 0.350                                   |
| 802.11n HT40     | Back Side     | 6/2437                     | 0.441                                      | 17.00                                 | 14.50                     | 0.56              | 0.248                                   |

Note:  
SAR is not required for OFDM when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is  $\leq 1.2$  W/kg.

**Variant**

| Test Position                                                                  | Cover Type | Sensor | Mode         | Duty Cycle | Channel/<br>Frequency (MHz) | Tune-up dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                   |                  |                |                | Plot No. |
|--------------------------------------------------------------------------------|------------|--------|--------------|------------|-----------------------------|--------------|----------------------|------------------------------|-------------------|------------------|----------------|----------------|----------|
|                                                                                |            |        |              |            |                             |              |                      | Area Scan SAR 1g             | Zoom Scan SAR 1g  | Power Drift (dB) | Scaling Factor | Report SAR 1g  |          |
| Head SAR                                                                       |            |        |              |            |                             |              |                      |                              |                   |                  |                |                |          |
| Left Cheek                                                                     | standard   | off    | 802.11n HT40 | 97.3%      | 5/2432                      | 13.00        | 11.81                | 0.006                        | 0.076             | 0.106            | 1.35           | 0.103          | 112      |
| Body-worn SAR (Distance 15mm)                                                  |            |        |              |            |                             |              |                      |                              |                   |                  |                |                |          |
| Back Side                                                                      | standard   | off    | 802.11g      | 99.1%      | 6/2437                      | 17.00        | 15.84                | 0.051                        | 0.042             | 0.158            | 1.32           | 0.055          | 113      |
| Test Position                                                                  | Cover Type | Sensor | Mode         | Duty Cycle | Channel/<br>Frequency (MHz) | Tune-up dBm) | Measured power (dBm) | Limit of SAR 4 W/kg (mW/g)   |                   |                  |                |                | Plot No. |
|                                                                                |            |        |              |            |                             |              |                      | Area Scan SAR 10g            | Zoom Scan SAR 10g | Power Drift (dB) | Scaling Factor | Report SAR 10g |          |
| Product Specific 10-g SAR (Distance 0mm)                                       |            |        |              |            |                             |              |                      |                              |                   |                  |                |                |          |
| Back Side                                                                      | standard   | off    | 802.11g      | 99.1%      | 6/2437                      | 17.00        | 15.84                | 0.390                        | 0.354             | 0.035            | 1.32           | 0.466          | 114      |
| Note: 1. The value with blue color is the maximum SAR Value of each test band. |            |        |              |            |                             |              |                      |                              |                   |                  |                |                |          |

**Table 41: Wi-Fi 5G,U-NII-1 (Ant 1)**
**Original**

| Test Position                                                                                   | Cover Type | Sensor | Mode    | Duty Cycle | Channel/<br>Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                  |                |               | Plot No. |
|-------------------------------------------------------------------------------------------------|------------|--------|---------|------------|-----------------------------|---------------|----------------------|------------------------------|------------------|------------------|----------------|---------------|----------|
|                                                                                                 |            |        |         |            |                             |               |                      | Area Scan SAR 1g             | Zoom Scan SAR 1g | Power Drift (dB) | Scaling Factor | Report SAR 1g |          |
| Hotspot SAR(Distance 10mm)                                                                      |            |        |         |            |                             |               |                      |                              |                  |                  |                |               |          |
| Back Side                                                                                       | Standard   | off    | 802.11a | 99.2%      | 44/5220                     | 16.00         | 15.67                | 0.182                        | 0.049            | 0.037            | 1.09           | 0.053         | /        |
| Front Side                                                                                      | Standard   | off    | 802.11a | 99.2%      | 44/5220                     | 16.00         | 15.67                | 0.149                        | 0.046            | 0.040            | 1.09           | 0.050         | /        |
| Left Edge                                                                                       | N/A        | N/A    | N/A     | N/A        | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A              | N/A            | N/A           | N/A      |
| Right Edge                                                                                      | Standard   | off    | 802.11a | 99.2%      | 44/5220                     | 16.00         | 15.67                | 0.098                        | 0.099            | 0.090            | 1.09           | 0.108         | /        |
| Top Edge                                                                                        | Standard   | off    | 802.11a | 99.2%      | 44/5220                     | 16.00         | 15.67                | 0.244                        | 0.238            | -0.040           | 1.09           | 0.259         | /        |
| Bottom Edge                                                                                     | N/A        | N/A    | N/A     | N/A        | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A              | N/A            | N/A           | N/A      |
| Top Edge                                                                                        | Battery2   | off    | 802.11a | 99.2%      | 44/5220                     | 16.00         | 15.67                | 0.210                        | 0.203            | -0.029           | 1.09           | 0.221         | /        |
| Note: 1. The value with blue color is the maximum SAR Value of each test band.                  |            |        |         |            |                             |               |                      |                              |                  |                  |                |               |          |
| Since the band U-NII-2A does not support hotspot function, hotspot SAR for U-NII-1 is required. |            |        |         |            |                             |               |                      |                              |                  |                  |                |               |          |

**Variant**

| Test Position                                                                                   | Cover Type | Sensor | Mode    | Duty Cycle | Channel/Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                  |                |               | Plot No. |
|-------------------------------------------------------------------------------------------------|------------|--------|---------|------------|-------------------------|---------------|----------------------|------------------------------|------------------|------------------|----------------|---------------|----------|
|                                                                                                 |            |        |         |            |                         |               |                      | Area Scan SAR 1g             | Zoom Scan SAR 1g | Power Drift (dB) | Scaling Factor | Report SAR 1g |          |
| Hotspot SAR(Distance 10mm)                                                                      |            |        |         |            |                         |               |                      |                              |                  |                  |                |               |          |
| Top Edge                                                                                        | Standard   | off    | 802.11a | 99.2%      | 44/5220                 | 16.00         | 15.67                | 0.319                        | 0.267            | 0.149            | 1.09           | 0.290         | 115      |
| Note: 1. The value with blue color is the maximum SAR Value of each test band.                  |            |        |         |            |                         |               |                      |                              |                  |                  |                |               |          |
| Since the band U-NII-2A does not support hotspot function, hotspot SAR for U-NII-1 is required. |            |        |         |            |                         |               |                      |                              |                  |                  |                |               |          |

**Table 42: Wi-Fi 5G U-NII-2A (Ant 1)**

Per 248227, for band U-NII-1 and U-NII-2A, when the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is  $\leq 1.2$  W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition); otherwise, each band is tested independently for SAR.

**Original**

| Test Position                                                                  | Cover Type | Sensor | Mode         | Duty Cycle | Channel/<br>Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                   |                  |                |                | Plot No. |
|--------------------------------------------------------------------------------|------------|--------|--------------|------------|-----------------------------|---------------|----------------------|------------------------------|-------------------|------------------|----------------|----------------|----------|
|                                                                                |            |        |              |            |                             |               |                      | Area Scan SAR 1g             | Zoom Scan SAR 1g  | Power Drift (dB) | Scaling Factor | Report SAR 1g  |          |
| Head SAR                                                                       |            |        |              |            |                             |               |                      |                              |                   |                  |                |                |          |
| Left Cheek                                                                     | standard   | off    | 802.11n HT40 | 98.0%      | 54/5270                     | 12.00         | 11.61                | 0.239                        | 0.271             | -0.045           | 1.12           | 0.303          | /        |
| Left Tilt                                                                      | standard   | off    | 802.11n HT40 | 98.0%      | 54/5270                     | 12.00         | 11.61                | 0.219                        | 0.272             | 0.136            | 1.12           | 0.304          | /        |
| Right Cheek                                                                    | standard   | off    | 802.11n HT40 | 98.0%      | 54/5270                     | 12.00         | 11.61                | 0.172                        | 0.180             | 0.028            | 1.12           | 0.201          | /        |
| Right Tilt                                                                     | standard   | off    | 802.11n HT40 | 98.0%      | 54/5270                     | 12.00         | 11.61                | 0.182                        | 0.190             | 0.111            | 1.12           | 0.212          | /        |
| Left Cheek                                                                     | Battery2   | off    | 802.11n HT40 | 98.0%      | 54/5270                     | 12.00         | 11.61                | 0.204                        | 0.236             | -0.046           | 1.12           | 0.264          | /        |
| Body-worn SAR (Distance 15mm)                                                  |            |        |              |            |                             |               |                      |                              |                   |                  |                |                |          |
| Back Side                                                                      | standard   | off    | 802.11a      | 99.2%      | 52/5260                     | 16.00         | 15.65                | 0.058                        | 0.049             | 0.037            | 1.09           | 0.053          | /        |
| Front Side                                                                     | standard   | off    | 802.11a      | 99.2%      | 52/5260                     | 16.00         | 15.65                | 0.001                        | 0.001             | 0.000            | 1.09           | 0.001          | /        |
| Back Side                                                                      | Battery2   | off    | 802.11a      | 99.2%      | 52/5260                     | 16.00         | 15.65                | 0.045                        | 0.038             | 0.020            | 1.09           | 0.042          | /        |
| Test Position                                                                  | Cover Type | Sensor | Mode         | Duty Cycle | Channel/<br>Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 4.0 W/kg (mW/g) |                   |                  |                |                | Plot No. |
|                                                                                |            |        |              |            |                             |               |                      | Area Scan SAR 10g            | Zoom Scan SAR 10g | Power Drift (dB) | Scaling Factor | Report SAR 10g |          |
| Product Specific 10-g SAR (Distance 0mm)                                       |            |        |              |            |                             |               |                      |                              |                   |                  |                |                |          |
| Back Side                                                                      | standard   | off    | 802.11a      | 99.2%      | 52/5260                     | 16.00         | 15.65                | 0.191                        | 0.204             | -0.057           | 1.09           | 0.223          | /        |
| Front Side                                                                     | standard   | off    | 802.11a      | 99.2%      | 52/5260                     | 16.00         | 15.65                | 0.203                        | 0.227             | 0.056            | 1.09           | 0.248          | /        |
| Left Edge                                                                      | N/A        | N/A    | N/A          | N/A        | N/A                         | N/A           | N/A                  | N/A                          | N/A               | N/A              | N/A            | N/A            | N/A      |
| Right Edge                                                                     | standard   | off    | 802.11a      | 99.2%      | 52/5260                     | 16.00         | 15.65                | 0.159                        | 0.172             | 0.018            | 1.09           | 0.188          | /        |
| Top Edge                                                                       | standard   | off    | 802.11a      | 99.2%      | 52/5260                     | 16.00         | 15.65                | 0.500                        | 0.391             | 0.026            | 1.09           | 0.427          | /        |
| Bottom Edge                                                                    | N/A        | N/A    | N/A          | N/A        | N/A                         | N/A           | N/A                  | N/A                          | N/A               | N/A              | N/A            | N/A            | N/A      |
| Top Edge                                                                       | Battery2   | off    | 802.11a      | 99.2%      | 52/5260                     | 16.00         | 15.65                | 0.373                        | 0.386             | -0.027           | 1.09           | 0.422          | /        |
| Note: 1. The value with blue color is the maximum SAR Value of each test band. |            |        |              |            |                             |               |                      |                              |                   |                  |                |                |          |

**Variant**

| Test Position                                                                  | Cover Type | Sensor | Mode         | Duty Cycle | Channel/Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                   |                  |                |                | Plot No. |
|--------------------------------------------------------------------------------|------------|--------|--------------|------------|-------------------------|---------------|----------------------|------------------------------|-------------------|------------------|----------------|----------------|----------|
|                                                                                |            |        |              |            |                         |               |                      | Area Scan SAR 1g             | Zoom Scan SAR 1g  | Power Drift (dB) | Scaling Factor | Report SAR 1g  |          |
| Head SAR                                                                       |            |        |              |            |                         |               |                      |                              |                   |                  |                |                |          |
| Left Tilt                                                                      | standard   | off    | 802.11n HT40 | 98.0%      | 54/5270                 | 12.00         | 11.61                | 0.235                        | 0.293             | 0.063            | 1.12           | 0.327          | 116      |
| Body-worn SAR (Distance 15mm)                                                  |            |        |              |            |                         |               |                      |                              |                   |                  |                |                |          |
| Back Side                                                                      | standard   | off    | 802.11a      | 99.2%      | 52/5260                 | 16.00         | 15.65                | 0.051                        | 0.036             | -0.029           | 1.09           | 0.040          | 117      |
| Test Position                                                                  | Cover Type | Sensor | Mode         | Duty Cycle | Channel/Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 4.0 W/kg (mW/g) |                   |                  |                |                | Plot No. |
|                                                                                |            |        |              |            |                         |               |                      | Area Scan SAR 10g            | Zoom Scan SAR 10g | Power Drift (dB) | Scaling Factor | Report SAR 10g |          |
| Product Specific 10-g SAR (Distance 0mm)                                       |            |        |              |            |                         |               |                      |                              |                   |                  |                |                |          |
| Top Edge                                                                       | standard   | off    | 802.11a      | 99.2%      | 52/5260                 | 16.00         | 15.65                | 0.420                        | 0.423             | 0.096            | 1.09           | 0.462          | 118      |
| Note: 1. The value with blue color is the maximum SAR Value of each test band. |            |        |              |            |                         |               |                      |                              |                   |                  |                |                |          |

**Table 43: Wi-Fi 5G U-NII-2C (Ant 1)**
**Original**

| Test Position                                                                  | Cover Type | Sensor | Mode         | Duty Cycle | Channel/<br>Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                   |                  |                |                | Plot No. |
|--------------------------------------------------------------------------------|------------|--------|--------------|------------|-----------------------------|---------------|----------------------|------------------------------|-------------------|------------------|----------------|----------------|----------|
|                                                                                |            |        |              |            |                             |               |                      | Area Scan SAR 1g             | Zoom Scan SAR 1g  | Power Drift (dB) | Scaling Factor | Report SAR 1g  |          |
| Head SAR                                                                       |            |        |              |            |                             |               |                      |                              |                   |                  |                |                |          |
| Left Cheek                                                                     | standard   | off    | 802.11n HT40 | 98.0%      | 118/5590                    | 12.00         | 11.61                | 0.398                        | 0.396             | 0.024            | 1.12           | 0.442          | /        |
| Left Tilt                                                                      | standard   | off    | 802.11n HT40 | 98.0%      | 110/5550                    | 12.00         | 11.42                | 0.412                        | 0.443             | 0.032            | 1.17           | 0.517          | /        |
|                                                                                | standard   | off    | 802.11n HT40 | 98.0%      | 118/5590                    | 12.00         | 11.61                | 0.430                        | 0.453             | 0.032            | 1.12           | 0.506          | /        |
|                                                                                | standard   | off    | 802.11n HT40 | 98.0%      | 134/5670                    | 9.50          | 8.46                 | 0.368                        | 0.378             | -0.046           | 1.30           | 0.490          | /        |
| Right Cheek                                                                    | standard   | off    | 802.11n HT40 | 98.0%      | 118/5590                    | 12.00         | 11.61                | 0.118                        | 0.134             | 0.012            | 1.12           | 0.150          | /        |
| Right Tilt                                                                     | standard   | off    | 802.11n HT40 | 98.0%      | 118/5590                    | 12.00         | 11.61                | 0.116                        | 0.201             | 0.040            | 1.12           | 0.224          | /        |
| Left Cheek                                                                     | Battery2   | off    | 802.11n HT40 | 98.0%      | 118/5590                    | 12.00         | 11.61                | 0.391                        | 0.408             | 0.146            | 1.12           | 0.455          | /        |
| Body-worn SAR (Distance 15mm)                                                  |            |        |              |            |                             |               |                      |                              |                   |                  |                |                |          |
| Back Side                                                                      | standard   | off    | 802.11a      | 99.2%      | 116/5580                    | 16.00         | 14.78                | 0.078                        | 0.072             | -0.188           | 1.33           | 0.096          | /        |
| Front Side                                                                     | standard   | off    | 802.11a      | 99.2%      | 116/5580                    | 16.00         | 14.78                | 0.001                        | 0.001             | 0.000            | 1.33           | 0.001          | /        |
| Back Side                                                                      | Battery2   | off    | 802.11a      | 99.2%      | 116/5580                    | 16.00         | 14.78                | 0.071                        | 0.066             | 0.031            | 1.33           | 0.088          | /        |
| Test Position                                                                  | Cover Type | Sensor | Mode         | Duty Cycle | Channel/<br>Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 4.0 W/kg (mW/g) |                   |                  |                |                | Plot No. |
|                                                                                |            |        |              |            |                             |               |                      | Area Scan SAR 10g            | Zoom Scan SAR 10g | Power Drift (dB) | Scaling Factor | Report SAR 10g |          |
| Product Specific 10-g SAR (Distance 0mm)                                       |            |        |              |            |                             |               |                      |                              |                   |                  |                |                |          |
| Back Side                                                                      | standard   | off    | 802.11a      | 99.2%      | 116/5580                    | 16.00         | 14.78                | 0.368                        | 0.375             | 0.025            | 1.34           | 0.500          | /        |
| Front Side                                                                     | standard   | off    | 802.11a      | 99.2%      | 116/5580                    | 16.00         | 14.78                | 0.325                        | 0.332             | 0.047            | 1.34           | 0.443          | /        |
| Left Edge                                                                      | N/A        | N/A    | N/A          | N/A        | N/A                         | N/A           | N/A                  | N/A                          | N/A               | N/A              | N/A            | N/A            | N/A      |
| Right Edge                                                                     | standard   | off    | 802.11a      | 99.2%      | 116/5580                    | 16.00         | 14.78                | 0.241                        | 0.225             | -0.090           | 1.34           | 0.300          | /        |
| Top Edge                                                                       | standard   | off    | 802.11a      | 99.2%      | 116/5580                    | 16.00         | 14.78                | 0.660                        | 0.580             | -0.023           | 1.34           | 0.774          | /        |
| Bottom Edge                                                                    | N/A        | N/A    | N/A          | N/A        | N/A                         | N/A           | N/A                  | N/A                          | N/A               | N/A              | N/A            | N/A            | N/A      |
| Top Edge                                                                       | Battery2   | off    | 802.11a      | 99.2%      | 116/5580                    | 16.00         | 14.78                | 0.448                        | 0.436             | -0.035           | 1.34           | 0.582          | /        |
| Note: 1. The value with blue color is the maximum SAR Value of each test band. |            |        |              |            |                             |               |                      |                              |                   |                  |                |                |          |

**Variant**

| Test Position                                                                  | Cover Type | Sensor | Mode         | Duty Cycle | Channel/<br>Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                   |                  |                |                | Plot No. |
|--------------------------------------------------------------------------------|------------|--------|--------------|------------|-----------------------------|---------------|----------------------|------------------------------|-------------------|------------------|----------------|----------------|----------|
|                                                                                |            |        |              |            |                             |               |                      | Area Scan SAR 1g             | Zoom Scan SAR 1g  | Power Drift (dB) | Scaling Factor | Report SAR 1g  |          |
| Head SAR                                                                       |            |        |              |            |                             |               |                      |                              |                   |                  |                |                |          |
| Left Tilt                                                                      | standard   | off    | 802.11n HT40 | 98.0%      | 142/5710                    | 12.00         | 11.33                | 0.388                        | 0.396             | 0.088            | 1.19           | 0.472          | 119      |
| Body-worn SAR (Distance 15mm)                                                  |            |        |              |            |                             |               |                      |                              |                   |                  |                |                |          |
| Back Side                                                                      | standard   | off    | 802.11a      | 99.2%      | 116/5580                    | 16.00         | 14.78                | 0.077                        | 0.067             | 0.170            | 1.33           | 0.090          | 120      |
| Test Position                                                                  | Cover Type | Sensor | Mode         | Duty Cycle | Channel/<br>Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 4.0 W/kg (mW/g) |                   |                  |                |                | Plot No. |
|                                                                                |            |        |              |            |                             |               |                      | Area Scan SAR 10g            | Zoom Scan SAR 10g | Power Drift (dB) | Scaling Factor | Report SAR 10g |          |
| Product Specific 10-g SAR (Distance 0mm)                                       |            |        |              |            |                             |               |                      |                              |                   |                  |                |                |          |
| Top Edge                                                                       | standard   | off    | 802.11a      | 99.2%      | 116/5580                    | 16.00         | 14.78                | 0.618                        | 0.604             | 0.095            | 1.34           | 0.807          | 121      |
| Note: 1. The value with blue color is the maximum SAR Value of each test band. |            |        |              |            |                             |               |                      |                              |                   |                  |                |                |          |

**Table 44: Wi-Fi 5G U-NII-3 (Ant 1)**
**Original**

| Test Position                                                                  | Cover Type | Sensor | Mode         | Duty Cycle | Channel/<br>Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                  |                |               | Plot No. |
|--------------------------------------------------------------------------------|------------|--------|--------------|------------|-----------------------------|---------------|----------------------|------------------------------|------------------|------------------|----------------|---------------|----------|
|                                                                                |            |        |              |            |                             |               |                      | Area Scan SAR 1g             | Zoom Scan SAR 1g | Power Drift (dB) | Scaling Factor | Report SAR 1g |          |
| Head SAR                                                                       |            |        |              |            |                             |               |                      |                              |                  |                  |                |               |          |
| Left Cheek                                                                     | standard   | off    | 802.11n HT40 | 98.0%      | 159/5795                    | 12.00         | 11.46                | 0.387                        | 0.398            | 0.019            | 1.16           | 0.460         | /        |
| Left Tilt                                                                      | standard   | off    | 802.11n HT40 | 98.0%      | 159/5795                    | 12.00         | 11.46                | 0.392                        | 0.397            | 0.183            | 1.16           | 0.459         | /        |
| Right Cheek                                                                    | standard   | off    | 802.11n HT40 | 98.0%      | 159/5795                    | 12.00         | 11.46                | 0.198                        | 0.201            | 0.090            | 1.16           | 0.232         | /        |
| Right Tilt                                                                     | standard   | off    | 802.11n HT40 | 98.0%      | 159/5795                    | 12.00         | 11.46                | 0.194                        | 0.197            | 0.076            | 1.16           | 0.228         | /        |
| Left Tilt                                                                      | Battery2   | off    | 802.11n HT40 | 98.0%      | 159/5795                    | 12.00         | 11.46                | 0.380                        | 0.386            | 0.110            | 1.16           | 0.446         | /        |
| Body-worn SAR (Distance 15mm)                                                  |            |        |              |            |                             |               |                      |                              |                  |                  |                |               |          |
| Back Side                                                                      | standard   | off    | 802.11a      | 99.2%      | 157/5785                    | 16.00         | 15.90                | 0.076                        | 0.059            | -0.198           | 0.10           | 0.006         | /        |
| Front Side                                                                     | standard   | off    | 802.11a      | 99.2%      | 157/5785                    | 16.00         | 15.90                | 0.001                        | 0.001            | 0.000            | 1.03           | 0.001         | /        |
| Back Side                                                                      | Battery2   | off    | 802.11a      | 99.2%      | 157/5785                    | 16.00         | 15.90                | 0.062                        | 0.053            | 0.118            | 0.10           | 0.005         | /        |
| Hotspot SAR(Distance 10mm)                                                     |            |        |              |            |                             |               |                      |                              |                  |                  |                |               |          |
| Back Side                                                                      | standard   | off    | 802.11a      | 99.2%      | 157/5785                    | 16.00         | 15.90                | 0.083                        | 0.087            | 0.101            | 1.03           | 0.090         | /        |
| Front Side                                                                     | standard   | off    | 802.11a      | 99.2%      | 157/5785                    | 16.00         | 15.90                | 0.057                        | 0.061            | 0.020            | 1.03           | 0.063         | /        |
| Left Edge                                                                      | N/A        | N/A    | N/A          | N/A        | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A              | N/A            | N/A           | N/A      |
| Right Edge                                                                     | standard   | off    | 802.11a      | 99.2%      | 157/5785                    | 16.00         | 15.90                | 0.034                        | 0.043            | 0.010            | 1.03           | 0.044         | /        |
| Top Edge                                                                       | standard   | off    | 802.11a      | 99.2%      | 157/5785                    | 16.00         | 15.90                | 0.141                        | 0.139            | 0.100            | 1.03           | 0.143         | /        |
| Bottom Edge                                                                    | N/A        | N/A    | N/A          | N/A        | N/A                         | N/A           | N/A                  | N/A                          | N/A              | N/A              | N/A            | N/A           | N/A      |
| Top Edge                                                                       | Battery2   | off    | 802.11a      | 99.2%      | 157/5785                    | 16.00         | 15.90                | 0.103                        | 0.098            | -0.035           | 1.03           | 0.101         | /        |
| Note: 1. The value with blue color is the maximum SAR Value of each test band. |            |        |              |            |                             |               |                      |                              |                  |                  |                |               |          |

**Variant**

| Test Position                                                                  | Cover Type | Sensor | Mode         | Duty Cycle | Channel/ Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                  |                |               | Plot No. |
|--------------------------------------------------------------------------------|------------|--------|--------------|------------|--------------------------|---------------|----------------------|------------------------------|------------------|------------------|----------------|---------------|----------|
|                                                                                |            |        |              |            |                          |               |                      | Area Scan SAR 1g             | Zoom Scan SAR 1g | Power Drift (dB) | Scaling Factor | Report SAR 1g |          |
| Head SAR                                                                       |            |        |              |            |                          |               |                      |                              |                  |                  |                |               |          |
| Left Cheek                                                                     | standard   | off    | 802.11n HT40 | 98.0%      | 159/5795                 | 12.00         | 11.46                | 0.174                        | 0.233            | 0.064            | 1.16           | 0.269         | 122      |
| Body-worn SAR (Distance 15mm)                                                  |            |        |              |            |                          |               |                      |                              |                  |                  |                |               |          |
| Back Side                                                                      | standard   | off    | 802.11a      | 99.2%      | 157/5785                 | 16.00         | 15.90                | 0.067                        | 0.045            | 0.051            | 0.10           | 0.005         | 123      |
| Hotspot SAR(Distance 10mm)                                                     |            |        |              |            |                          |               |                      |                              |                  |                  |                |               |          |
| Top Edge                                                                       | standard   | off    | 802.11a      | 99.2%      | 157/5785                 | 16.00         | 15.90                | 0.143                        | 0.147            | 0.083            | 1.03           | 0.152         | 124      |
| Note: 1. The value with blue color is the maximum SAR Value of each test band. |            |        |              |            |                          |               |                      |                              |                  |                  |                |               |          |



**Table 45: Wi-Fi 5G,U-NII-1 (Ant 2)**
**Original**

| Test Position                                                                                   | Cover Type | Sensor | Mode    | Duty Cycle | Channel/<br>Frequency (MHz) | Tune-up dBm | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                  |                |               | Plot No. |
|-------------------------------------------------------------------------------------------------|------------|--------|---------|------------|-----------------------------|-------------|----------------------|------------------------------|------------------|------------------|----------------|---------------|----------|
|                                                                                                 |            |        |         |            |                             |             |                      | Area Scan SAR 1g             | Zoom Scan SAR 1g | Power Drift (dB) | Scaling Factor | Report SAR 1g |          |
| Hotspot SAR(Distance 10mm)                                                                      |            |        |         |            |                             |             |                      |                              |                  |                  |                |               |          |
| Back Side                                                                                       | Standard   | off    | 802.11a | 99.2%      | 44/5220                     | 15.50       | 14.70                | 0.092                        | 0.093            | 0.120            | 1.21           | 0.113         | /        |
| Front Side                                                                                      | Standard   | off    | 802.11a | 99.2%      | 44/5220                     | 15.50       | 14.70                | 0.001                        | 0.001            | 0.000            | 1.21           | 0.001         | /        |
| Left Edge                                                                                       | Standard   | off    | 802.11a | 99.2%      | 44/5220                     | 15.50       | 14.70                | 0.048                        | 0.047            | 0.020            | 1.21           | 0.057         | /        |
| Right Edge                                                                                      | N/A        | N/A    | N/A     | N/A        | N/A                         | N/A         | N/A                  | N/A                          | N/A              | N/A              | N/A            | N/A           | N/A      |
| Top Edge                                                                                        | Standard   | off    | 802.11a | 99.2%      | 44/5220                     | 15.50       | 14.70                | 0.063                        | 0.072            | 0.039            | 1.21           | 0.087         | /        |
| Bottom Edge                                                                                     | N/A        | N/A    | N/A     | N/A        | N/A                         | N/A         | N/A                  | N/A                          | N/A              | N/A              | N/A            | N/A           | N/A      |
| Back Side                                                                                       | Battery2   | off    | 802.11a | 99.2%      | 44/5220                     | 15.50       | 14.70                | 0.078                        | 0.080            | 0.034            | 1.21           | 0.097         | /        |
| Note: 1. The value with blue color is the maximum SAR Value of each test band.                  |            |        |         |            |                             |             |                      |                              |                  |                  |                |               |          |
| Since the band U-NII-2A does not support hotspot function, hotspot SAR for U-NII-1 is required. |            |        |         |            |                             |             |                      |                              |                  |                  |                |               |          |

**Variant**

| Test Position                                                                                   | Cover Type | Sensor | Mode    | Duty Cycle | Channel/ Frequency (MHz) | Tune-up dBm | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                  |                |               | Plot No. |
|-------------------------------------------------------------------------------------------------|------------|--------|---------|------------|--------------------------|-------------|----------------------|------------------------------|------------------|------------------|----------------|---------------|----------|
|                                                                                                 |            |        |         |            |                          |             |                      | Area Scan SAR 1g             | Zoom Scan SAR 1g | Power Drift (dB) | Scaling Factor | Report SAR 1g |          |
| Hotspot SAR(Distance 10mm)                                                                      |            |        |         |            |                          |             |                      |                              |                  |                  |                |               |          |
| Back Side                                                                                       | Standard   | off    | 802.11a | 99.2%      | 44/5220                  | 15.50       | 14.70                | 0.096                        | 0.098            | 0.068            | 1.21           | 0.119         | 125      |
| Note: 1. The value with blue color is the maximum SAR Value of each test band.                  |            |        |         |            |                          |             |                      |                              |                  |                  |                |               |          |
| Since the band U-NII-2A does not support hotspot function, hotspot SAR for U-NII-1 is required. |            |        |         |            |                          |             |                      |                              |                  |                  |                |               |          |

**Table 46: Wi-Fi 5G U-NII-2A (Ant 2)**

Per 248227, for band U-NII-1 and U-NII-2A, when the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is  $\leq 1.2$  W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition); otherwise, each band is tested independently for SAR.

**Original**

| Test Position                                                                  | Cover Type | Sensor | Mode         | Duty Cycle | Channel/<br>Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                   |                  |                |                | Plot No. |
|--------------------------------------------------------------------------------|------------|--------|--------------|------------|-----------------------------|---------------|----------------------|------------------------------|-------------------|------------------|----------------|----------------|----------|
|                                                                                |            |        |              |            |                             |               |                      | Area Scan SAR 1g             | Zoom Scan SAR 1g  | Power Drift (dB) | Scaling Factor | Report SAR 1g  |          |
| Head SAR                                                                       |            |        |              |            |                             |               |                      |                              |                   |                  |                |                |          |
| Left Cheek                                                                     | standard   | off    | 802.11n HT40 | 98.0%      | 54/5270                     | 12.00         | 11.77                | 0.051                        | 0.054             | 0.040            | 1.08           | 0.058          | /        |
| Left Tilt                                                                      | standard   | off    | 802.11n HT40 | 98.0%      | 54/5270                     | 12.00         | 11.77                | 0.052                        | 0.049             | 0.134            | 1.08           | 0.052          | /        |
| Right Cheek                                                                    | standard   | off    | 802.11n HT40 | 98.0%      | 54/5270                     | 12.00         | 11.77                | 0.096                        | 0.085             | 0.133            | 1.08           | 0.091          | /        |
| Right Tilt                                                                     | standard   | off    | 802.11n HT40 | 98.0%      | 54/5270                     | 12.00         | 11.77                | 0.063                        | 0.054             | 0.199            | 1.08           | 0.058          | /        |
| Right Cheek                                                                    | Battery2   | off    | 802.11n HT40 | 98.0%      | 54/5270                     | 12.00         | 11.77                | 0.090                        | 0.082             | 0.126            | 1.08           | 0.088          | /        |
| Body-worn SAR (Distance 15mm)                                                  |            |        |              |            |                             |               |                      |                              |                   |                  |                |                |          |
| Back Side                                                                      | standard   | off    | 802.11a      | 99.2%      | 60/5300                     | 15.50         | 15.09                | 0.041                        | 0.047             | 0.034            | 1.11           | 0.052          | /        |
| Front Side                                                                     | standard   | off    | 802.11a      | 99.2%      | 60/5300                     | 15.50         | 15.09                | 0.001                        | 0.001             | 0.000            | 1.11           | 0.001          | /        |
| Back Side                                                                      | Battery2   | off    | 802.11a      | 99.2%      | 60/5300                     | 15.50         | 15.09                | 0.020                        | 0.028             | 0.016            | 1.11           | 0.031          | /        |
| Test Position                                                                  | Cover Type | Sensor | Mode         | Duty Cycle | Channel/<br>Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 4.0 W/kg (mW/g) |                   |                  |                |                | Plot No. |
|                                                                                |            |        |              |            |                             |               |                      | Area Scan SAR 10g            | Zoom Scan SAR 10g | Power Drift (dB) | Scaling Factor | Report SAR 10g |          |
| Product Specific 10-g SAR (Distance 0mm)                                       |            |        |              |            |                             |               |                      |                              |                   |                  |                |                |          |
| Back Side                                                                      | standard   | off    | 802.11a      | 99.2%      | 60/5300                     | 15.50         | 15.09                | 0.389                        | 0.360             | 0.025            | 1.11           | 0.399          | /        |
| Front Side                                                                     | standard   | off    | 802.11a      | 99.2%      | 60/5300                     | 15.50         | 15.09                | 0.108                        | 0.093             | -0.042           | 1.11           | 0.103          | /        |
| Left Edge                                                                      | standard   | off    | 802.11a      | 99.2%      | 60/5300                     | 15.50         | 15.09                | 0.153                        | 0.175             | 0.036            | 1.11           | 0.194          | /        |
| Right Edge                                                                     | N/A        | N/A    | N/A          | N/A        | N/A                         | N/A           | N/A                  | N/A                          | N/A               | N/A              | N/A            | N/A            | N/A      |
| Top Edge                                                                       | standard   | off    | 802.11a      | 99.2%      | 60/5300                     | 15.50         | 15.09                | 0.341                        | 0.329             | 0.020            | 1.11           | 0.364          | /        |
| Bottom Edge                                                                    | N/A        | N/A    | N/A          | N/A        | N/A                         | N/A           | N/A                  | N/A                          | N/A               | N/A              | N/A            | N/A            | N/A      |
| Top Edge                                                                       | Battery2   | off    | 802.11a      | 99.2%      | 60/5300                     | 15.50         | 15.09                | 0.341                        | 0.330             | 0.065            | 1.11           | 0.366          | /        |
| Note: 1. The value with blue color is the maximum SAR Value of each test band. |            |        |              |            |                             |               |                      |                              |                   |                  |                |                |          |

Note: 1. The value with blue color is the maximum SAR Value of each test band.

**Variant**

| Test Position                                                                  | Cover Type | Sensor | Mode         | Duty Cycle | Channel/<br>Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                   |                  |                |                | Plot No. |
|--------------------------------------------------------------------------------|------------|--------|--------------|------------|-----------------------------|---------------|----------------------|------------------------------|-------------------|------------------|----------------|----------------|----------|
|                                                                                |            |        |              |            |                             |               |                      | Area Scan SAR 1g             | Zoom Scan SAR 1g  | Power Drift (dB) | Scaling Factor | Report SAR 1g  |          |
| Head SAR                                                                       |            |        |              |            |                             |               |                      |                              |                   |                  |                |                |          |
| Right Cheek                                                                    | standard   | off    | 802.11n HT40 | 98.0%      | 54/5270                     | 12.00         | 11.77                | 0.052                        | 0.066             | 0.062            | 1.08           | 0.071          | 126      |
| Body-worn SAR (Distance 15mm)                                                  |            |        |              |            |                             |               |                      |                              |                   |                  |                |                |          |
| Back Side                                                                      | standard   | off    | 802.11a      | 99.2%      | 60/5300                     | 15.50         | 15.09                | 0.049                        | 0.053             | 0.179            | 1.11           | 0.059          | 127      |
| Test Position                                                                  | Cover Type | Sensor | Mode         | Duty Cycle | Channel/<br>Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 4.0 W/kg (mW/g) |                   |                  |                |                | Plot No. |
|                                                                                |            |        |              |            |                             |               |                      | Area Scan SAR 10g            | Zoom Scan SAR 10g | Power Drift (dB) | Scaling Factor | Report SAR 10g |          |
| Product Specific 10-g SAR (Distance 0mm)                                       |            |        |              |            |                             |               |                      |                              |                   |                  |                |                |          |
| Back Side                                                                      | standard   | off    | 802.11a      | 99.2%      | 60/5300                     | 15.50         | 15.09                | 0.144                        | 0.149             | 0.032            | 1.11           | 0.165          | 128      |
| Note: 1. The value with blue color is the maximum SAR Value of each test band. |            |        |              |            |                             |               |                      |                              |                   |                  |                |                |          |

**Table 47: Wi-Fi 5G U-NII-2C (Ant 2)**
**Original**

| Test Position                                                                  | Cover Type | Sensor | Mode         | Duty Cycle | Channel/Frequency(MHz)  | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                   |                  |                |                | Plot No. |
|--------------------------------------------------------------------------------|------------|--------|--------------|------------|-------------------------|---------------|----------------------|------------------------------|-------------------|------------------|----------------|----------------|----------|
|                                                                                |            |        |              |            |                         |               |                      | Area Scan SAR 1g             | Zoom Scan SAR 1g  | Power Drift (dB) | Scaling Factor | Report SAR 1g  |          |
| Head SAR                                                                       |            |        |              |            |                         |               |                      |                              |                   |                  |                |                |          |
| Left Cheek                                                                     | standard   | off    | 802.11n HT40 | 98.0%      | 118/5590                | 12.00         | 11.89                | 0.107                        | 0.112             | 0.110            | 1.05           | 0.117          | /        |
| Left Tilt                                                                      | standard   | off    | 802.11n HT40 | 98.0%      | 118/5590                | 12.00         | 11.89                | 0.101                        | 0.104             | 0.090            | 1.05           | 0.109          | /        |
| Right Cheek                                                                    | standard   | off    | 802.11n HT40 | 98.0%      | 118/5590                | 12.00         | 11.89                | 0.124                        | 0.127             | 0.030            | 1.05           | 0.133          | /        |
| Right Tilt                                                                     | standard   | off    | 802.11n HT40 | 98.0%      | 118/5590                | 12.00         | 11.89                | 0.137                        | 0.139             | 0.140            | 1.05           | 0.146          | /        |
| Right Cheek                                                                    | Battery2   | off    | 802.11n HT40 | 98.0%      | 118/5590                | 12.00         | 11.89                | 0.132                        | 0.138             | 0.054            | 1.05           | 0.145          | /        |
| Body-worn SAR (Distance 15mm)                                                  |            |        |              |            |                         |               |                      |                              |                   |                  |                |                |          |
| Back Side                                                                      | standard   | off    | 802.11a      | 99.2%      | 136/5680                | 15.50         | 14.86                | 0.034                        | 0.037             | -0.120           | 1.17           | 0.043          | /        |
| Front Side                                                                     | standard   | off    | 802.11a      | 99.2%      | 136/5680                | 15.50         | 14.86                | 0.001                        | 0.001             | 0.000            | 1.17           | 0.001          | /        |
| Back Side                                                                      | Battery2   | off    | 802.11a      | 99.2%      | 136/5680                | 15.50         | 14.86                | 0.033                        | 0.035             | 0.150            | 1.17           | 0.041          | /        |
| Test Position                                                                  | Cover Type | Sensor | Mode         | Duty Cycle | Channel/Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 4.0 W/kg (mW/g) |                   |                  |                |                | Plot No. |
|                                                                                |            |        |              |            |                         |               |                      | Area Scan SAR 10g            | Zoom Scan SAR 10g | Power Drift (dB) | Scaling Factor | Report SAR 10g |          |
| Product Specific 10-g SAR (Distance 0mm)                                       |            |        |              |            |                         |               |                      |                              |                   |                  |                |                |          |
| Back Side                                                                      | standard   | off    | 802.11a      | 99.2%      | 136/5680                | 15.50         | 14.86                | 0.353                        | 0.387             | -0.042           | 1.17           | 0.452          | /        |
| Front Side                                                                     | standard   | off    | 802.11a      | 99.2%      | 136/5680                | 15.50         | 14.86                | 0.055                        | 0.063             | -0.018           | 1.17           | 0.074          | /        |
| Left Edge                                                                      | standard   | off    | 802.11a      | 99.2%      | 136/5680                | 15.50         | 14.86                | 0.125                        | 0.133             | 0.067            | 1.17           | 0.155          | /        |
| Right Edge                                                                     | N/A        | N/A    | N/A          | N/A        | N/A                     | N/A           | N/A                  | N/A                          | N/A               | N/A              | N/A            | N/A            | N/A      |
| Top Edge                                                                       | standard   | off    | 802.11a      | 99.2%      | 136/5680                | 15.50         | 14.86                | 0.089                        | 0.081             | -0.021           | 1.17           | 0.095          | /        |
| Bottom Edge                                                                    | N/A        | N/A    | N/A          | N/A        | N/A                     | N/A           | N/A                  | N/A                          | N/A               | N/A              | N/A            | N/A            | N/A      |
| Back Side                                                                      | Battery2   | off    | 802.11a      | 99.2%      | 136/5680                | 15.50         | 14.86                | 0.337                        | 0.372             | -0.062           | 1.17           | 0.435          | /        |
| Note: 1. The value with blue color is the maximum SAR Value of each test band. |            |        |              |            |                         |               |                      |                              |                   |                  |                |                |          |

**Variant**

| Test Position                                                                  | Cover Type | Sensor | Mode         | Duty Cycle | Channel/Frequency(MHz)  | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                   |                  |                |                | Plot No. |
|--------------------------------------------------------------------------------|------------|--------|--------------|------------|-------------------------|---------------|----------------------|------------------------------|-------------------|------------------|----------------|----------------|----------|
|                                                                                |            |        |              |            |                         |               |                      | Area Scan SAR 1g             | Zoom Scan SAR 1g  | Power Drift (dB) | Scaling Factor | Report SAR 1g  |          |
| Head SAR                                                                       |            |        |              |            |                         |               |                      |                              |                   |                  |                |                |          |
| Right Tilt                                                                     | standard   | off    | 802.11n HT40 | 98.0%      | 118/5590                | 12.00         | 11.89                | 0.027                        | 0.026             | 0.026            | 1.05           | 0.027          | 129      |
| Body-worn SAR (Distance 15mm)                                                  |            |        |              |            |                         |               |                      |                              |                   |                  |                |                |          |
| Back Side                                                                      | standard   | off    | 802.11a      | 99.2%      | 136/5680                | 15.50         | 14.86                | 0.036                        | 0.038             | 0.049            | 1.17           | 0.044          | 130      |
| Test Position                                                                  | Cover Type | Sensor | Mode         | Duty Cycle | Channel/Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 4.0 W/kg (mW/g) |                   |                  |                |                | Plot No. |
|                                                                                |            |        |              |            |                         |               |                      | Area Scan SAR 10g            | Zoom Scan SAR 10g | Power Drift (dB) | Scaling Factor | Report SAR 10g |          |
| Product Specific 10-g SAR (Distance 0mm)                                       |            |        |              |            |                         |               |                      |                              |                   |                  |                |                |          |
| Back Side                                                                      | standard   | off    | 802.11a      | 99.2%      | 136/5680                | 15.5          | 14.86                | 0.282                        | 0.371             | 0.161            | 1.17           | 0.434          | 131      |
| Note: 1. The value with blue color is the maximum SAR Value of each test band. |            |        |              |            |                         |               |                      |                              |                   |                  |                |                |          |

**Table 48: Wi-Fi 5G U-NII-3 (Ant 2)**
**Original**

| Test Position                                                                  | Cover Type | Sensor | Mode         | Duty Cycle | Channel/ Frequency(MHz) | Tune-up dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                  |                |               | Plot No. |
|--------------------------------------------------------------------------------|------------|--------|--------------|------------|-------------------------|--------------|----------------------|------------------------------|------------------|------------------|----------------|---------------|----------|
|                                                                                |            |        |              |            |                         |              |                      | Area Scan SAR 1g             | Zoom Scan SAR 1g | Power Drift (dB) | Scaling Factor | Report SAR 1g |          |
| Head SAR                                                                       |            |        |              |            |                         |              |                      |                              |                  |                  |                |               |          |
| Left Cheek                                                                     | standard   | off    | 802.11n HT40 | 98.0%      | 159/5795                | 12.00        | 11.36                | 0.098                        | 0.099            | 0.011            | 1.18           | 0.117         | /        |
| Left Tilt                                                                      | standard   | off    | 802.11n HT40 | 98.0%      | 159/5795                | 12.00        | 11.36                | 0.086                        | 0.087            | 0.012            | 1.18           | 0.103         | /        |
| Right Cheek                                                                    | standard   | off    | 802.11n HT40 | 98.0%      | 159/5795                | 12.00        | 11.36                | 0.094                        | 0.096            | 0.090            | 1.18           | 0.114         | /        |
| Right Tilt                                                                     | standard   | off    | 802.11n HT40 | 98.0%      | 159/5795                | 12.00        | 11.36                | 0.093                        | 0.094            | 0.080            | 1.18           | 0.111         | /        |
| Left Cheek                                                                     | Battery2   | off    | 802.11n HT40 | 98.0%      | 159/5795                | 12.00        | 11.36                | 0.077                        | 0.080            | -0.043           | 1.18           | 0.095         | /        |
| Body-worn SAR (Distance 15mm)                                                  |            |        |              |            |                         |              |                      |                              |                  |                  |                |               |          |
| Back Side                                                                      | standard   | off    | 802.11a      | 99.2%      | 161/5800                | 15.50        | 15.28                | 0.021                        | 0.022            | 0.010            | 1.06           | 0.023         | /        |
| Front Side                                                                     | standard   | off    | 802.11a      | 99.2%      | 161/5800                | 15.50        | 15.28                | 0.001                        | 0.001            | 0.000            | 1.06           | 0.001         | /        |
| Back Side                                                                      | Battery2   | off    | 802.11a      | 99.2%      | 161/5800                | 15.50        | 15.28                | 0.019                        | 0.020            | 0.030            | 1.06           | 0.021         | /        |
| Hotspot SAR(Distance 10mm)                                                     |            |        |              |            |                         |              |                      |                              |                  |                  |                |               |          |
| Back Side                                                                      | standard   | off    | 802.11a      | 99.2%      | 161/5800                | 15.50        | 15.28                | 0.188                        | 0.179            | 0.152            | 1.06           | 0.190         | /        |
| Front Side                                                                     | standard   | off    | 802.11a      | 99.2%      | 161/5800                | 15.50        | 15.28                | 0.001                        | 0.001            | 0.000            | 1.06           | 0.001         | /        |
| Left Edge                                                                      | standard   | off    | 802.11a      | 99.2%      | 161/5800                | 15.50        | 15.28                | 0.039                        | 0.038            | 0.020            | 1.06           | 0.040         | /        |
| Right Edge                                                                     | N/A        | N/A    | N/A          | N/A        | N/A                     | N/A          | N/A                  | N/A                          | N/A              | N/A              | N/A            | N/A           | N/A      |
| Top Edge                                                                       | standard   | off    | 802.11a      | 99.2%      | 161/5800                | 15.50        | 15.28                | 0.001                        | 0.001            | 0.000            | 1.06           | 0.001         | /        |
| Bottom Edge                                                                    | N/A        | N/A    | N/A          | N/A        | N/A                     | N/A          | N/A                  | N/A                          | N/A              | N/A              | N/A            | N/A           | N/A      |
| Back Side                                                                      | Battery2   | off    | 802.11a      | 99.2%      | 161/5800                | 15.50        | 15.28                | 0.152                        | 0.139            | 0.068            | 1.06           | 0.147         | /        |
| Note: 1. The value with blue color is the maximum SAR Value of each test band. |            |        |              |            |                         |              |                      |                              |                  |                  |                |               |          |

**Variant**

| Test Position                                                                  | Cover Type | Sensor | Mode         | Duty Cycle | Channel/ Frequency(MHz) | Tune-up dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                  |                |               | Plot No. |
|--------------------------------------------------------------------------------|------------|--------|--------------|------------|-------------------------|--------------|----------------------|------------------------------|------------------|------------------|----------------|---------------|----------|
|                                                                                |            |        |              |            |                         |              |                      | Area Scan SAR 1g             | Zoom Scan SAR 1g | Power Drift (dB) | Scaling Factor | Report SAR 1g |          |
| Head SAR                                                                       |            |        |              |            |                         |              |                      |                              |                  |                  |                |               |          |
| Left Cheek                                                                     | standard   | off    | 802.11n HT40 | 98.0%      | 159/5795                | 12.00        | 11.36                | 0.104                        | 0.106            | 0.068            | 1.18           | 0.125         | 132      |
| Body-worn SAR (Distance 15mm)                                                  |            |        |              |            |                         |              |                      |                              |                  |                  |                |               |          |
| Back Side                                                                      | standard   | off    | 802.11a      | 99.2%      | 161/5800                | 15.50        | 15.28                | 0.020                        | 0.023            | -0.056           | 1.06           | 0.024         | 133      |
| Hotspot SAR(Distance 10mm)                                                     |            |        |              |            |                         |              |                      |                              |                  |                  |                |               |          |
| Back Side                                                                      | standard   | off    | 802.11a      | 99.2%      | 161/5800                | 15.50        | 15.28                | 0.197                        | 0.185            | -0.037           | 1.06           | 0.196         | 134      |
| Note: 1. The value with blue color is the maximum SAR Value of each test band. |            |        |              |            |                         |              |                      |                              |                  |                  |                |               |          |

**Table 49: Bluetooth**  
**Original**

| Test Position                                   | Cover Type | Mode | Duty Cycle | Channel/<br>Frequency<br>(MHz) | Tune-<br>up<br>dBm) | Measured<br>power<br>(dBm) | Limit of SAR 1.6 W/kg (mW/g) |                     |                   |                   | Plot<br>No. |
|-------------------------------------------------|------------|------|------------|--------------------------------|---------------------|----------------------------|------------------------------|---------------------|-------------------|-------------------|-------------|
|                                                 |            |      |            |                                |                     |                            | Measured<br>SAR1g            | Power<br>Drift (dB) | Scaling<br>Factor | Report<br>SAR 1g  |             |
| Head SAR(normal)                                |            |      |            |                                |                     |                            |                              |                     |                   |                   |             |
| Left Cheek                                      | standard   | DH5  | 76.7%      | 39/2441                        | 11.00               | 10.20                      | 0.119                        | 0.087               | 1.57              | 0.187             | /           |
| Left Tilt                                       | standard   | DH5  | 76.7%      | 39/2441                        | 11.00               | 10.20                      | 0.123                        | 0.051               | 1.57              | 0.193             | 135         |
| Right Cheek                                     | standard   | DH5  | 76.7%      | 39/2441                        | 11.00               | 10.20                      | 0.054                        | 0.045               | 1.57              | 0.085             | /           |
| Right Tilt                                      | standard   | DH5  | 76.7%      | 39/2441                        | 11.00               | 10.20                      | 0.049                        | 0.030               | 1.57              | 0.077             | /           |
| Left Tilt                                       | Battery 2  | DH5  | 76.7%      | 39/2441                        | 11.00               | 10.20                      | 0.108                        | -0.024              | 1.57              | 0.169             | /           |
| Body-worn SAR (Distance 15mm)(normal)           |            |      |            |                                |                     |                            |                              |                     |                   |                   |             |
| Back Side                                       | standard   | DH5  | 76.7%      | 39/2441                        | 11.00               | 10.20                      | 0.001                        | 0.080               | 1.57              | 0.002             | /           |
| Front Side                                      | standard   | DH5  | 76.7%      | 39/2441                        | 11.00               | 10.20                      | 0.001                        | 0.030               | 1.57              | 0.002             | 136         |
| Back Side                                       | Battery 2  | DH5  | 76.7%      | 39/2441                        | 11.00               | 10.20                      | 0.000                        | -0.087              | 1.57              | 0.000             | /           |
| Body-worn SAR (Distance 15mm)(high)             |            |      |            |                                |                     |                            |                              |                     |                   |                   |             |
| Back Side                                       | standard   | DH5  | 76.7%      | 0/2402                         | 18.30               | 16.90                      | 0.031                        | 0.030               | 1.80              | 0.056             | /           |
| Front Side                                      | standard   | DH5  | 76.7%      | 0/2402                         | 18.30               | 16.90                      | 0.035                        | 0.052               | 1.80              | 0.063             | 137         |
| Front Side                                      | Battery 2  | DH5  | 76.7%      | 0/2402                         | 18.30               | 16.90                      | 0.022                        | 0.051               | 1.80              | 0.040             | /           |
| Hotspot SAR(Distance 10mm)(normal)              |            |      |            |                                |                     |                            |                              |                     |                   |                   |             |
| Back Side                                       | standard   | DH5  | 76.7%      | 39/2441                        | 11.00               | 10.20                      | 0.009                        | 0.032               | 1.57              | 0.014             | /           |
| Front Side                                      | standard   | DH5  | 76.7%      | 39/2441                        | 11.00               | 10.20                      | 0.012                        | 0.021               | 1.57              | 0.019             | /           |
| Left Edge                                       | N/A        | N/A  | N/A        | N/A                            | N/A                 | N/A                        | N/A                          | N/A                 | N/A               | N/A               | N/A         |
| Right Edge                                      | standard   | DH5  | 76.7%      | 39/2441                        | 11.00               | 10.20                      | 0.034                        | 0.020               | 1.57              | 0.053             | /           |
| Top Edge                                        | standard   | DH5  | 76.7%      | 39/2441                        | 11.00               | 10.20                      | 0.057                        | 0.070               | 1.57              | 0.089             | 138         |
| Bottom Edge                                     | N/A        | N/A  | N/A        | N/A                            | N/A                 | N/A                        | N/A                          | N/A                 | N/A               | N/A               | N/A         |
| Top Edge                                        | Battery 2  | DH5  | 76.7%      | 39/2441                        | 11.00               | 10.20                      | 0.036                        | 0.018               | 1.57              | 0.057             | /           |
| Hotspot SAR(Distance 10mm)(high)                |            |      |            |                                |                     |                            |                              |                     |                   |                   |             |
| Back Side                                       | standard   | DH5  | 76.7%      | 0/2402                         | 18.30               | 16.90                      | 0.092                        | 0.032               | 1.80              | 0.166             | /           |
| Front Side                                      | standard   | DH5  | 76.7%      | 0/2402                         | 18.30               | 16.90                      | 0.084                        | 0.021               | 1.80              | 0.151             | /           |
| Left Edge                                       | N/A        | N/A  | N/A        | N/A                            | N/A                 | N/A                        | N/A                          | N/A                 | N/A               | N/A               | N/A         |
| Right Edge                                      | standard   | DH5  | 76.7%      | 0/2402                         | 18.30               | 16.90                      | 0.034                        | 0.020               | 1.80              | 0.061             | /           |
| Top Edge                                        | standard   | DH5  | 76.7%      | 0/2402                         | 18.30               | 16.90                      | 0.217                        | 0.070               | 1.80              | 0.391             | 139         |
| Bottom Edge                                     | N/A        | N/A  | N/A        | N/A                            | N/A                 | N/A                        | N/A                          | N/A                 | N/A               | N/A               | N/A         |
| Top Edge                                        | Battery 2  | DH5  | 76.7%      | 0/2402                         | 18.30               | 16.90                      | 0.189                        | -0.027              | 1.80              | 0.340             | /           |
| Test Position                                   | Cover Type | Mode | Duty Cycle | Channel/<br>Frequency<br>(MHz) | Tune-<br>up<br>dBm) | Measured<br>power<br>(dBm) | Limit of SAR 1.6 W/kg (mW/g) |                     |                   |                   | Plot<br>No. |
|                                                 |            |      |            |                                |                     |                            | Measured<br>SAR10g           | Power<br>Drift (dB) | Scaling<br>Factor | Report<br>SAR 10g |             |
| Product Specific 10-g SAR (Distance 0mm) (high) |            |      |            |                                |                     |                            |                              |                     |                   |                   |             |
| Back Side                                       | standard   | DH5  | 76.7%      | 0/2402                         | 18.30               | 16.90                      | 0.161                        | 0.012               | 1.80              | 0.290             | /           |



|             |           |     |       |        |       |       |       |        |      |       |     |
|-------------|-----------|-----|-------|--------|-------|-------|-------|--------|------|-------|-----|
| Front Side  | standard  | DH5 | 76.7% | 0/2402 | 18.30 | 16.90 | 0.148 | -0.045 | 1.80 | 0.266 | /   |
| Left Edge   | N/A       | N/A | N/A   | N/A    | N/A   | N/A   | N/A   | N/A    | N/A  | N/A   | N/A |
| Right Edge  | standard  | DH5 | 76.7% | 0/2402 | 18.30 | 16.90 | 0.063 | -0.017 | 1.80 | 0.113 | /   |
| Top Edge    | standard  | DH5 | 76.7% | 0/2402 | 18.30 | 16.90 | 0.309 | 0.078  | 1.80 | 0.556 | 140 |
| Bottom Edge | N/A       | N/A | N/A   | N/A    | N/A   | N/A   | N/A   | N/A    | N/A  | N/A   | N/A |
| Top Edge    | Battery 2 | DH5 | 76.7% | 0/2402 | 18.30 | 16.90 | 0.235 | 0.150  | 1.80 | 0.423 | /   |

Note: 1. The value with blue color is the maximum SAR Value of each test band.

### Variant

| Test Position                                                                  | Cover Type | Mode | Duty Cycle | Channel/ Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |                | Plot No. |
|--------------------------------------------------------------------------------|------------|------|------------|--------------------------|---------------|----------------------|------------------------------|------------------|----------------|----------------|----------|
|                                                                                |            |      |            |                          |               |                      | Measured SAR1g               | Power Drift (dB) | Scaling Factor | Report SAR 1g  |          |
| Head SAR(normal)                                                               |            |      |            |                          |               |                      |                              |                  |                |                |          |
| Left Tilt                                                                      | standard   | DH5  | 76.7%      | 39/2441                  | 11.00         | 10.20                | 0.105                        | 0.022            | 1.57           | 0.165          | 141      |
| Body-worn SAR (Distance 15mm)(normal)                                          |            |      |            |                          |               |                      |                              |                  |                |                |          |
| Front Side                                                                     | standard   | DH5  | 76.7%      | 39/2441                  | 11.00         | 10.20                | 0.001                        | -0.026           | 1.57           | 0.002          | 142      |
| Body-worn SAR (Distance 15mm)(high)                                            |            |      |            |                          |               |                      |                              |                  |                |                |          |
| Front Side                                                                     | standard   | DH5  | 76.7%      | 0/2402                   | 18.30         | 16.90                | 0.036                        | 0.013            | 1.80           | 0.065          | 143      |
| Hotspot SAR(Distance 10mm)(normal)                                             |            |      |            |                          |               |                      |                              |                  |                |                |          |
| Top Edge                                                                       | standard   | DH5  | 76.7%      | 39/2441                  | 11.00         | 10.20                | 0.049                        | -0.017           | 1.57           | 0.077          | 144      |
| Hotspot SAR(Distance 10mm)(high)                                               |            |      |            |                          |               |                      |                              |                  |                |                |          |
| Top Edge                                                                       | standard   | DH5  | 76.7%      | 0/2402                   | 18.30         | 16.90                | 0.205                        | 0.046            | 1.80           | 0.369          | 145      |
| Note: 1. The value with blue color is the maximum SAR Value of each test band. |            |      |            |                          |               |                      |                              |                  |                |                |          |
| Test Position                                                                  | Cover Type | Mode | Duty Cycle | Channel/ Frequency (MHz) | Tune-up (dBm) | Measured power (dBm) | Limit of SAR 1.6 W/kg (mW/g) |                  |                |                | Plot No. |
|                                                                                |            |      |            |                          |               |                      | Measured SAR10g              | Power Drift (dB) | Scaling Factor | Report SAR 10g |          |
| Product Specific 10-g SAR (Distance 0mm) (high)                                |            |      |            |                          |               |                      |                              |                  |                |                |          |
| Top Edge                                                                       | standard   | DH5  | 76.7%      | 0/2402                   | 18.30         | 16.90                | 0.301                        | 0.069            | 1.80           | 0.542          | 146      |
| Note: 1. The value with blue color is the maximum SAR Value of each test band. |            |      |            |                          |               |                      |                              |                  |                |                |          |

## 10.4 Simultaneous Transmission Analysis

The Simultaneous Transmission Possibilities of this device are as below:

**Table: Simultaneous Transmission Possibilities with BT Power Level B**

| NO. | Simultaneous TX Combination                                                 | Head | Body-worn | Hotspot | Product Specific 10-g SAR |
|-----|-----------------------------------------------------------------------------|------|-----------|---------|---------------------------|
| 1   | GSM Voice(Ant1) + Bluetooth                                                 | Yes  | Yes       | N/A     | Yes                       |
| 2   | GSM DATA(Ant 1) + Bluetooth                                                 | N/A  | Yes       | Yes     | Yes                       |
| 3   | GSM Voice(Ant 2) + Bluetooth                                                | Yes  | Yes       | N/A     | Yes                       |
| 4   | GSM DATA (Ant 2)+ Bluetooth                                                 | N/A  | Yes       | Yes     | Yes                       |
| 5   | UMTS (Ant 1) + Bluetooth                                                    | Yes  | Yes       | Yes     | Yes                       |
| 6   | UMTS (Ant 1) + Bluetooth                                                    | Yes  | Yes       | Yes     | Yes                       |
| 7   | LTE(Ant 1) + Bluetooth                                                      | Yes  | Yes       | Yes     | Yes                       |
| 8   | LTE (Ant 2) + Bluetooth                                                     | Yes  | Yes       | Yes     | Yes                       |
| 9   | GSM Voice(Ant 1) + Wi-Fi 2.4G (Ant 1)/ Wi-Fi 2.4G (Ant 2)/ Wi- Fi 2.4G MIMO | Yes  | Yes       | N/A     | Yes                       |
| 10  | GSM DATA(Ant 1) + Wi-Fi 2.4G (Ant 1)/ Wi-Fi 2.4G (Ant 2)/ Wi-Fi 2.4G MIMO   | N/A  | Yes       | Yes     | Yes                       |
| 11  | GSM Voice(Ant 2) + Wi-Fi 2.4G (Ant 1)/ Wi-Fi 2.4G (Ant 2)/ Wi-Fi 2.4G MIMO  | Yes  | Yes       | N/A     | Yes                       |
| 12  | GSM DATA (Ant 2)+ Wi-Fi 2.4G (Ant 1)/ Wi-Fi 2.4G (Ant 2)/ Wi-Fi 2.4G MIMO   | N/A  | Yes       | Yes     | Yes                       |
| 13  | UMTS (Ant 1) + Wi-Fi 2.4G (Ant 1)/ Wi-Fi 2.4G (Ant 2)/ Wi-Fi 2.4G MIMO      | Yes  | Yes       | Yes     | Yes                       |
| 14  | UMTS (Ant 2) + Wi-Fi 2.4G (Ant 1)/ Wi-Fi 2.4G (Ant 2)/ Wi-Fi 2.4G MIMO      | Yes  | Yes       | Yes     | Yes                       |
| 15  | LTE (Ant 1) + Wi-Fi 2.4G (Ant 1)/ Wi-Fi 2.4G (Ant 2)/ Wi-Fi 2.4G MIMO       | Yes  | Yes       | Yes     | Yes                       |
| 16  | LTE (Ant 2) + Wi-Fi 2.4G (Ant 1)/ Wi-Fi 2.4G (Ant 2)/ Wi-Fi 2.4G MIMO       | Yes  | Yes       | Yes     | Yes                       |
| 17  | GSM Voice(Ant 1) + Wi-Fi 5G (Ant 1)/ Wi-Fi 5G (Ant 2)/ Wi- Fi 5G MIMO       | Yes  | Yes       | N/A     | Yes                       |
| 18  | GSM DATA(Ant 1) + Wi-Fi 5G (Ant 1)/ Wi-Fi 5G (Ant 2)/ Wi- Fi 5G MIMO        | N/A  | Yes       | Yes     | Yes                       |
| 19  | GSM Voice(Ant 2) + Wi-Fi 5G (Ant 1)/ Wi-Fi 5G (Ant 2)/ Wi-Fi 5G MIMO        | Yes  | Yes       | N/A     | Yes                       |
| 20  | GSM DATA(Ant 2) + Wi-Fi 5G (Ant 1)/ Wi-Fi 5G (Ant 2)/ Wi-Fi 5G MIMO         | N/A  | Yes       | Yes     | Yes                       |
| 21  | UMTS (Ant 1) + Wi-Fi 5G (Ant 1)/ Wi-Fi 5G (Ant 2)/ Wi-Fi 5G MIMO            | Yes  | Yes       | Yes     | Yes                       |
| 22  | UMTS (Ant 2) + Wi-Fi 5G (Ant 1)/ Wi-Fi 5G (Ant 2)/ Wi-Fi 5G MIMO            | Yes  | Yes       | Yes     | Yes                       |

|    |                                                                  |     |     |     |     |
|----|------------------------------------------------------------------|-----|-----|-----|-----|
| 23 | LTE (Ant 1 ) + Wi-Fi 5G (Ant 1)/ Wi-Fi 5G (Ant 2)/ Wi-Fi 5G MIMO | Yes | Yes | Yes | Yes |
| 24 | LTE (Ant 2) + Wi-Fi 5G (Ant 1)/ Wi-Fi 5G (Ant 2)/ Wi-Fi 5G MIMO  | Yes | Yes | Yes | Yes |
| 25 | GSM Voice(Ant 1) + Wi-Fi 2.4G (Ant 2) + Wi-Fi 5G (Ant 1)         | Yes | Yes | N/A | Yes |
| 26 | GSM DATA(Ant 1) + Wi-Fi 2.4G (Ant 2) + Wi-Fi 5G (Ant 1)          | N/A | Yes | Yes | Yes |
| 27 | GSM Voice(Ant 2) + Wi-Fi 2.4G (Ant 2) + Wi-Fi 5G (Ant 1)         | Yes | Yes | N/A | Yes |
| 28 | GSM DATA(Ant 2) + Wi-Fi 2.4G (Ant 2) + Wi-Fi 5G (Ant 1)          | N/A | Yes | Yes | Yes |
| 29 | UMTS (Ant 1) + Wi-Fi 2.4G (Ant 2) + Wi-Fi 5G (Ant 1)             | Yes | Yes | Yes | Yes |
| 30 | UMTS (Ant 2) + Wi-Fi 2.4G (Ant 2) + Wi-Fi 5G (Ant 1)             | Yes | Yes | Yes | Yes |
| 31 | LTE (Ant 1) + Wi-Fi 2.4G (Ant 2) + Wi-Fi 5G (Ant 1)              | Yes | Yes | Yes | Yes |
| 32 | LTE (Ant 2) + Wi-Fi 2.4G (Ant 2) + Wi-Fi 5G (Ant 1)              | Yes | Yes | Yes | Yes |
| 33 | GSM Voice(Ant 1) + Bluetooth+ Wi-Fi 5G (Ant1/ Ant2/ MIMO)        | Yes | Yes | N/A | Yes |
| 34 | GSM DATA(Ant 1) + Bluetooth+ Wi-Fi 5G (Ant1/ Ant2/ MIMO)         | N/A | Yes | Yes | Yes |
| 35 | GSM Voice(Ant 2) + Bluetooth+ Wi-Fi 5G (Ant1/ Ant2/ MIMO)        | Yes | Yes | N/A | Yes |
| 36 | GSM DATA (Ant 2)+ Bluetooth+ Wi-Fi 5G (Ant1/ Ant2/ MIMO)         | N/A | Yes | Yes | Yes |
| 37 | UMTS (Ant 1) + Bluetooth+ Wi-Fi 5G (Ant1/ Ant2/ MIMO)            | Yes | Yes | Yes | Yes |
| 38 | UMTS (Ant 2) + Bluetooth+ Wi-Fi 5G (Ant1/ Ant2/ MIMO)            | Yes | Yes | Yes | Yes |
| 39 | LTE (Ant 1) + Bluetooth+ Wi-Fi 5G (Ant1/ Ant2/ MIMO)             | Yes | Yes | Yes | Yes |
| 40 | LTE (Ant 2) + Bluetooth+ Wi-Fi 5G (Ant1/ Ant2/ MIMO)             | Yes | Yes | Yes | Yes |
| 41 | GSM Voice(Ant 1) + Bluetooth+ Wi-Fi 2.4G (Ant2)                  | Yes | Yes | N/A | Yes |
| 42 | GSM DATA(Ant 1) + Bluetooth+ Wi-Fi 2.4G (Ant2)                   | N/A | Yes | Yes | Yes |
| 43 | GSM Voice(Ant 2) + Bluetooth+ Wi-Fi 2.4G (Ant2)                  | Yes | Yes | N/A | Yes |
| 44 | GSM DATA (Ant 2)+ Bluetooth+ Wi-Fi 2.4G (Ant2)                   | N/A | Yes | Yes | Yes |

|    |                                                                     |     |     |     |     |
|----|---------------------------------------------------------------------|-----|-----|-----|-----|
| 45 | UMTS (Ant 1) + Bluetooth+ Wi-Fi 2.4G (Ant2)                         | Yes | Yes | Yes | Yes |
| 46 | UMTS (Ant 2) + Bluetooth+Wi-Fi 2.4G (Ant2)                          | Yes | Yes | Yes | Yes |
| 47 | LTE (Ant 1) + Bluetooth+ Wi-Fi 2.4G (Ant2)                          | Yes | Yes | Yes | Yes |
| 48 | LTE (Ant 2) + Bluetooth+ Wi-Fi 5G Wi-Fi 2.4G (Ant2)                 | Yes | Yes | Yes | Yes |
| 49 | GSM DATA(Ant 1) + Wi-Fi 2.4G (Ant 2) + Wi-Fi 5G (Ant 1)+ Bluetooth  | Yes | Yes | N/A | Yes |
| 50 | GSM DATA(Ant 2) + Wi-Fi 2.4G (Ant 2) + Wi-Fi 5G (Ant 1)+Bluetooth   | N/A | Yes | Yes | Yes |
| 51 | GSM Voice(Ant 1) + Wi-Fi 2.4G (Ant 2) + Wi-Fi 5G (Ant 1)+ Bluetooth | Yes | Yes | N/A | Yes |
| 52 | GSM Voice (Ant 2) + Wi-Fi 2.4G (Ant 2) + Wi-Fi 5G (Ant 1)+Bluetooth | N/A | Yes | Yes | Yes |
| 53 | UMTS (Ant 1) + Wi-Fi 2.4G (Ant 2) + Wi-Fi 5G (Ant 1)+Bluetooth      | Yes | Yes | Yes | Yes |
| 54 | UMTS (Ant 2) + Wi-Fi 2.4G (Ant 2) + Wi-Fi 5G (Ant 1)+Bluetooth      | Yes | Yes | Yes | Yes |
| 55 | LTE (Ant 1) + Wi-Fi 2.4G (Ant 2) + Wi-Fi 5G (Ant 1)+Bluetooth       | Yes | Yes | Yes | Yes |
| 56 | LTE (Ant 2) + Wi-Fi 2.4G (Ant 2) + Wi-Fi 5G (Ant 1)+Bluetooth       | Yes | Yes | Yes | Yes |

**Note:**

- 1) Wi-Fi 2.4G Ant.2 can transmit simultaneously with Bluetooth and Ant.1 can't transmit simultaneously with Bluetooth.
- 2) Wi-Fi 5G Ant.1 can transmit simultaneously with Bluetooth and Ant.2 also can transmit simultaneously with Bluetooth.
- 3) Wi-Fi 2.4G has two TX antennas. Wi-Fi 2.4G 802.11g/n support 2\*2 CDD/MIMO function.
- 4) Wi-Fi 5G has two TX antennas. Wi-Fi 5G 802.11 a/n/ac support 2\*2 CDD/MIMO function.
- 5) Wi-Fi 2.4G& Wi-Fi 5G can't work at same mode, but they can transmit simultaneously at different modes (Wi-Fi station/P-to-P) by using different Wi-Fi antennas. Only Wi-Fi 2.4G Ant2 station mode and Wi-Fi 5G Ant1 P-to-P mode or Wi-Fi 2.4G Ant2 P-to-P mode and Wi-Fi 5G Ant1 station mode can transmit simultaneously.
- 6) The Main Antenna (Ant1) and Second Antenna (Ant2) can't transmit simultaneously.
- 7) When 2.4G hotspot +Bluetooth off ,it works on ant1. When 2.4G hotspot +Bluetooth on, 2.4G hotspot works on ant2 and Bluetooth works on ant1.

The simultaneous transmission possibilities for BT at lower power level B and high power level A are different. I The simultaneous transmission possibilities for BT high power level A is as below table:

**Table: Simultaneous Transmission Possibilities with BT Power Level A**

| NO. | Simultaneous TX Combination                      | Head | Body-worn | Hotspot | Product Specific 10-g SAR |
|-----|--------------------------------------------------|------|-----------|---------|---------------------------|
| 1   | GSM Voice(Ant1) + Bluetooth                      | N/A  | Yes       | N/A     | Yes                       |
| 2   | GSM DATA(Ant 1) + Bluetooth                      | N/A  | Yes       | Yes     | Yes                       |
| 3   | GSM Voice(Ant 2) + Bluetooth                     | N/A  | Yes       | N/A     | Yes                       |
| 4   | GSM DATA (Ant 2)+ Bluetooth                      | N/A  | Yes       | Yes     | Yes                       |
| 5   | UMTS (Ant 1) + Bluetooth                         | N/A  | Yes       | Yes     | Yes                       |
| 6   | UMTS (Ant 1) + Bluetooth                         | N/A  | Yes       | Yes     | Yes                       |
| 7   | LTE(Ant 1) + Bluetooth                           | N/A  | Yes       | Yes     | Yes                       |
| 8   | LTE (Ant 2) + Bluetooth                          | N/A  | Yes       | Yes     | Yes                       |
| 9   | GSM Voice(Ant 1) + Bluetooth+ Wi-Fi 2.4G (Ant 2) | N/A  | Yes       | N/A     | Yes                       |
| 10  | GSM DATA(Ant 1) + Bluetooth+ Wi-Fi 2.4G (Ant 2)  | N/A  | Yes       | Yes     | Yes                       |
| 11  | GSM Voice(Ant 2) + Bluetooth+ Wi-Fi 2.4G (Ant 2) | N/A  | Yes       | N/A     | Yes                       |
| 12  | GSM DATA(Ant 2) + Bluetooth+ Wi-Fi 2.4G (Ant 2)  | N/A  | Yes       | Yes     | Yes                       |
| 13  | UMTS (Ant 1) + Bluetooth+ Wi-Fi 2.4G (Ant 2)     | N/A  | Yes       | Yes     | Yes                       |
| 14  | UMTS (Ant 1) + Bluetooth+ Wi-Fi 2.4G (Ant 2)     | N/A  | Yes       | Yes     | Yes                       |
| 15  | LTE(Ant 1) + Bluetooth+ Wi-Fi 2.4G (Ant 2)       | N/A  | Yes       | Yes     | Yes                       |
| 16  | LTE (Ant 2) + Bluetooth+ Wi-Fi 2.4G (Ant 2)      | N/A  | Yes       | Yes     | Yes                       |
| 17  | GSM Voice(Ant 1) + Bluetooth+ Wi-Fi 5G (Ant 2)   | N/A  | Yes       | N/A     | Yes                       |
| 18  | GSM DATA(Ant 1) + Bluetooth+ Wi-Fi 5G (Ant 2)    | N/A  | Yes       | Yes     | Yes                       |
| 19  | GSM Voice(Ant 2) + Bluetooth+ Wi-Fi 5G (Ant 2)   | N/A  | Yes       | N/A     | Yes                       |
| 20  | GSM DATA(Ant 2) + Bluetooth+ Wi-Fi 5G (Ant 2)    | N/A  | Yes       | Yes     | Yes                       |
| 21  | UMTS (Ant 1) + Bluetooth+ Wi-Fi 5G (Ant 2)       | N/A  | Yes       | Yes     | Yes                       |
| 22  | UMTS (Ant 1) + Bluetooth+ Wi-Fi 5G (Ant 2)       | N/A  | Yes       | Yes     | Yes                       |
| 23  | LTE(Ant 1) + Bluetooth+ Wi-Fi 5G (Ant 2)         | N/A  | Yes       | Yes     | Yes                       |
| 24  | LTE (Ant 2) + Bluetooth+ Wi-Fi 5G (Ant 2)        | N/A  | Yes       | Yes     | Yes                       |

Note:

- 1) When BT is in high power level A, BT and Wi-Fi 5G Ant. 1(Core0)/ Wi-Fi 5G MIMO cannot transmit simultaneously because BT occupies Wi-Fi 5G Ant. 1 (Core0) 's RF channel. They are time division multiplexing.
- 2) When Wi-Fi 2 4G and 5G are both on at the same time, BT can only work at power B. BT High Power A will be limited by design.
- 3) Ant 1=Wi-Fi Core 0/ BT; Ant 2 = Wi-Fi Core 1.

**General Note:**

1. The Scaled SAR summation is calculated based on the same configuration and test position.
2. Per KDB 447498 D01, simultaneous transmission SAR is compliant if,
  - i) Scalar SAR summation  $< 1.6\text{W/kg}$ , simultaneously transmission SAR measurement is not necessary.
  - ii)  $\text{SPLSR} = (\text{SAR1} + \text{SAR2})^{1.5} / (\text{min. separation distance, mm})$ , and the peak separation distance is determined from the square root of  $[(x1-x2)^2 + (y1-y2)^2 + (z1-z2)^2]$ , where  $(x1, y1, z1)$  and  $(x2, y2, z2)$  are the coordinates of the extrapolated peak SAR locations in the zoom scan.
  - iii) If  $\text{SPLSR} \leq 0.04$ , simultaneously transmission SAR measurement is not necessary.

**The maximum SAR<sub>1g</sub> Value for Main-Antenna**

| Test Position |             | Main antenna |          |              |              |             |            |            |            |            |             |             |             |             |             | Main antenna<br>Max SAR |
|---------------|-------------|--------------|----------|--------------|--------------|-------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------------------|
|               |             | GSM 850      | GSM 1900 | UMTS Band II | UMTS Band IV | UMTS Band V | LTE Band 2 | LTE Band 4 | LTE Band 5 | LTE Band 7 | LTE Band 12 | LTE Band 17 | LTE Band 26 | LTE Band 38 | LTE Band 41 |                         |
| Head          | Left cheek  | 0.091        | 0.072    | 0.216        | 0.198        | 0.138       | 0.149      | 0.145      | 0.131      | 0.150      | 0.103       | 0.120       | 0.108       | 0.051       | 0.041       | 0.216                   |
|               | Left tilt   | 0.044        | 0.048    | 0.139        | 0.087        | 0.072       | 0.092      | 0.063      | 0.069      | 0.108      | 0.055       | 0.058       | 0.056       | 0.043       | 0.039       | 0.139                   |
|               | Right cheek | 0.140        | 0.081    | 0.288        | 0.196        | 0.189       | 0.176      | 0.084      | 0.178      | 0.233      | 0.140       | 0.158       | 0.161       | 0.079       | 0.079       | 0.288                   |
|               | Right tilt  | 0.044        | 0.041    | 0.147        | 0.108        | 0.064       | 0.099      | 0.066      | 0.085      | 0.033      | 0.050       | 0.065       | 0.059       | 0.022       | 0.026       | 0.147                   |
| Body Worn     | Back side   | 0.184        | 0.158    | 0.510        | 0.413        | 0.259       | 0.385      | 0.282      | 0.263      | 0.440      | 0.273       | 0.210       | 0.277       | 0.246       | 0.182       | 0.510                   |
|               | Front side  | 0.138        | 0.111    | 0.411        | 0.377        | 0.199       | 0.295      | 0.252      | 0.205      | 0.313      | 0.251       | 0.165       | 0.193       | 0.190       | 0.126       | 0.411                   |
| Hotspot       | Back side   | 0.262        | 0.265    | 0.285        | 0.242        | 0.469       | 0.389      | 0.214      | 0.413      | 0.327      | 0.366       | 0.307       | 0.414       | 0.229       | 0.260       | 0.469                   |
|               | Front side  | 0.211        | 0.181    | 0.237        | 0.163        | 0.354       | 0.363      | 0.262      | 0.337      | 0.242      | 0.298       | 0.244       | 0.276       | 0.180       | 0.201       | 0.363                   |
|               | Left side   | 0.209        | 0.069    | 0.121        | 0.090        | 0.364       | 0.097      | 0.089      | 0.150      | 0.074      | 0.086       | 0.133       | 0.119       | 0.086       | 0.095       | 0.364                   |
|               | Right side  | 0.140        | 0.111    | 0.110        | 0.084        | 0.199       | 0.138      | 0.123      | 0.146      | 0.103      | 0.104       | 0.122       | 0.104       | 0.087       | 0.099       | 0.199                   |
|               | Top side    | N/A          | N/A      | N/A          | N/A          | N/A         | N/A        | N/A        | N/A        | N/A        | N/A         | N/A         | N/A         | N/A         | N/A         | 0                       |
|               | Bottom side | 0.179        | 0.408    | 0.493        | 0.430        | 0.260       | 0.507      | 0.514      | 0.262      | 0.471      | 0.130       | 0.105       | 0.212       | 0.268       | 0.454       | 0.514                   |

**The maximum SAR<sub>1g</sub> Value for Second-Antenna**

| Test Position |             | Second antenna |          |              |              |             |            |            |            |            |             |             |             |             |             | Second antenna<br>Max SAR |
|---------------|-------------|----------------|----------|--------------|--------------|-------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|---------------------------|
|               |             | GSM 850        | GSM 1900 | UMTS Band II | UMTS Band IV | UMTS Band V | LTE Band 2 | LTE Band 4 | LTE Band 5 | LTE Band 7 | LTE Band 12 | LTE Band 17 | LTE Band 26 | LTE Band 38 | LTE Band 41 |                           |
| Head          | Left cheek  | 0.534          | 0.224    | 0.419        | 0.475        | 0.414       | 0.348      | 0.338      | 0.403      | 0.362      | 0.347       | 0.424       | 0.429       | 0.250       | 0.277       | 0.534                     |
|               | Left tilt   | 0.468          | 0.299    | 0.708        | 0.751        | 0.413       | 0.377      | 0.375      | 0.324      | 0.424      | 0.285       | 0.376       | 0.352       | 0.205       | 0.261       | 0.751                     |
|               | Right cheek | 0.461          | 0.323    | 0.524        | 0.532        | 0.464       | 0.488      | 0.459      | 0.374      | 0.634      | 0.478       | 0.564       | 0.480       | 0.378       | 0.395       | 0.634                     |
|               | Right tilt  | 0.493          | 0.502    | 0.620        | 0.637        | 0.525       | 0.617      | 0.590      | 0.337      | 0.755      | 0.504       | 0.546       | 0.386       | 0.350       | 0.467       | 0.755                     |
| Body Worn     | Back side   | 0.163          | 0.073    | 0.392        | 0.305        | 0.265       | 0.271      | 0.177      | 0.213      | 0.288      | 0.151       | 0.140       | 0.222       | 0.073       | 0.186       | 0.392                     |
|               | Front side  | 0.178          | 0.084    | 0.385        | 0.358        | 0.314       | 0.234      | 0.209      | 0.167      | 0.141      | 0.174       | 0.132       | 0.242       | 0.055       | 0.099       | 0.385                     |
| Hotspot       | Back side   | 0.385          | 0.302    | 0.344        | 0.249        | 0.150       | 0.272      | 0.155      | 0.308      | 0.469      | 0.333       | 0.372       | 0.313       | 0.249       | 0.389       | 0.469                     |
|               | Front side  | 0.390          | 0.326    | 0.342        | 0.275        | 0.598       | 0.252      | 0.187      | 0.371      | 0.207      | 0.395       | 0.291       | 0.357       | 0.149       | 0.171       | 0.598                     |
|               | Left side   | 0.119          | 0.050    | 0.050        | 0.060        | 0.050       | 0.089      | 0.070      | 0.079      | 0.090      | 0.119       | 0.107       | 0.098       | 0.088       | 0.114       | 0.119                     |
|               | Right side  | 0.021          | 0.056    | 0.075        | 0.033        | 0.034       | N/A        | N/A        | N/A        | N/A        | N/A         | N/A         | N/A         | N/A         | N/A         | 0.075                     |
|               | Top side    | 0.235          | 0.730    | 0.739        | 0.568        | 0.084       | 0.524      | 0.309      | 0.208      | 0.412      | 0.228       | 0.202       | 0.249       | 0.277       | 0.367       | 0.739                     |
|               | Bottom side | N/A            | N/A      | N/A          | N/A          | N/A         | N/A        | N/A        | N/A        | N/A        | N/A         | N/A         | N/A         | N/A         | N/A         | 0                         |

**SAR Simultaneous Tx Combination of Main antenna with WiFi/BT Scenario (BT: Power level B)**

| Test Position               |             | Main antenna<br>MaxSAR | WiFi 2.4G<br>Ant1<br>(Core0) | WiFi 2.4G<br>Ant2<br>(Core1) | WiFi 2.4G<br>MIMO | WiFi 5G<br>Ant1<br>(Core0) | WiFi 5G<br>Ant2<br>(Core1) | WiFi 5G<br>MIMO | BT<br>Power<br>Level B | Simultaneously Transmission SAR |                  |                  |                        |       |             |       |
|-----------------------------|-------------|------------------------|------------------------------|------------------------------|-------------------|----------------------------|----------------------------|-----------------|------------------------|---------------------------------|------------------|------------------|------------------------|-------|-------------|-------|
|                             |             | 1                      | 2                            | 3                            | 4                 | 5                          | 6                          | 7               | 8                      | 1+8                             | 1+max<br>(2,3,4) | 1+max<br>(5,6,7) | 1+3+5<br>(5,6,7)<br>+8 | 1+3+8 | 1+3+5<br>+8 |       |
|                             |             |                        |                              |                              |                   |                            |                            |                 |                        |                                 |                  |                  |                        |       |             |       |
| Head                        | Left cheek  | 0.216                  | 0.283                        | 0.098                        | 0.404             | 0.460                      | 0.125                      | 0.585           | 0.187                  | 0.403                           | 0.620            | 0.801            | 0.774                  | 0.988 | 0.501       | 0.961 |
|                             | Left tilt   | 0.139                  | 0.312                        | 0.018                        | 0.369             | 0.521                      | 0.109                      | 0.630           | 0.193                  | 0.332                           | 0.508            | 0.769            | 0.678                  | 0.962 | 0.350       | 0.871 |
|                             | Right cheek | 0.288                  | 0.126                        | 0.016                        | 0.151             | 0.232                      | 0.133                      | 0.365           | 0.085                  | 0.373                           | 0.439            | 0.653            | 0.536                  | 0.738 | 0.389       | 0.621 |
|                             | Right tilt  | 0.147                  | 0.159                        | 0.015                        | 0.171             | 0.228                      | 0.146                      | 0.374           | 0.077                  | 0.224                           | 0.318            | 0.521            | 0.390                  | 0.598 | 0.239       | 0.467 |
| Body<br>Worn                | Back side   | 0.510                  | 0.130                        | 0.074                        | 0.142             | 0.096                      | 0.059                      | 0.155           | 0.002                  | 0.512                           | 0.652            | 0.665            | 0.680                  | 0.667 | 0.586       | 0.682 |
|                             | Front side  | 0.411                  | 0.074                        | 0.014                        | 0.114             | 0.001                      | 0.001                      | 0.002           | 0.002                  | 0.413                           | 0.525            | 0.413            | 0.426                  | 0.415 | 0.427       | 0.428 |
| Hotspot                     | Back side   | 0.469                  | 0.195                        | 0.215                        | 0                 | 0.090                      | 0.196                      | 0.286           | 0.014                  | 0.483                           | 0.684            | 0.755            | 0.774                  | 0.769 | 0.698       | 0.788 |
|                             | Front side  | 0.363                  | 0.213                        | 0.007                        | 0                 | 0.063                      | 0.001                      | 0.064           | 0.019                  | 0.382                           | 0.576            | 0.427            | 0.433                  | 0.446 | 0.389       | 0.452 |
|                             | Left side   | 0.364                  | 0                            | 0.085                        | 0                 | 0                          | 0.057                      | 0.057           | 0                      | 0.364                           | 0.449            | 0.421            | 0.449                  | 0.421 | 0.449       | 0.449 |
|                             | Right side  | 0.199                  | 0.178                        | 0                            | 0                 | 0.108                      | 0                          | 0.108           | 0.053                  | 0.252                           | 0.377            | 0.307            | 0.307                  | 0.360 | 0.252       | 0.360 |
|                             | Top side    | 0                      | 0.288                        | 0.008                        | 0                 | 0.290                      | 0.087                      | 0.377           | 0.089                  | 0.089                           | 0.288            | 0.377            | 0.298                  | 0.466 | 0.097       | 0.387 |
|                             | Bottom side | 0.514                  | 0                            | 0                            | 0                 | 0                          | 0                          | 0               | 0                      | 0.514                           | 0.514            | 0.514            | 0.514                  | 0.514 | 0.514       | 0.514 |
| Product<br>Specific<br>10-g | Back side   | 0                      | 0                            | 0                            | 0.883             | 0.500                      | 0.452                      | 0.952           | 0                      | 0                               | 0.883            | 0.952            | 0.5                    | 0.952 | 0           | 0.5   |
|                             | Front side  | 0                      | 0                            | 0                            | 0.465             | 0.443                      | 0.103                      | 0.546           | 0                      | 0                               | 0.465            | 0.546            | 0.44                   | 0.546 | 0           | 0.443 |
|                             | Left side   | 0                      | 0                            | 0                            | 0.149             | 0                          | 0.194                      | 0.194           | 0                      | 0                               | 0.149            | 0.194            | 0                      | 0.194 | 0           | 0     |
|                             | Right side  | 0                      | 0                            | 0                            | 0.462             | 0.300                      | 0                          | 0.3             | 0                      | 0                               | 0.462            | 0.3              | 0.3                    | 0.3   | 0           | 0.3   |
|                             | Top side    | 0                      | 0                            | 0                            | 1.117             | 0.807                      | 0.364                      | 1.171           | 0                      | 0                               | 1.117            | 1.171            | 0.81                   | 1.171 | 0           | 0.807 |
|                             | Bottom side | 0                      | 0                            | 0                            | 0                 | 0                          | 0                          | 0               | 0                      | 0                               | 0                | 0                | 0                      | 0     | 0           | 0     |



**SAR Simultaneous Tx Combination of Second antenna with WiFi/BT Scenario (BT: Power level B)**

| Test Position         |             | Second antenna MaxSAR | WiFi 2.4G Ant1 (Core0) | WiFi 2.4G Ant2 (Core1) | WiFi 2.4G MIMO | WiFi 5G Ant1 (Core0) | WiFi 5G Ant2 (Core1) | WiFi 5G MIMO | BT Power Level B | Simultaneously Transmission SAR |               |               |                 |       |         |       |
|-----------------------|-------------|-----------------------|------------------------|------------------------|----------------|----------------------|----------------------|--------------|------------------|---------------------------------|---------------|---------------|-----------------|-------|---------|-------|
|                       |             | 1                     | 2                      | 3                      | 4              | 5                    | 6                    | 7            | 8                | 1+8                             | 1+max (2,3,4) | 1+max (5,6,7) | 1+3+5 (5,6,7)+8 | 1+3+8 | 1+3+5+8 |       |
| Head                  | Left cheek  | 0.534                 | 0.283                  | 0.098                  | 0.404          | 0.460                | 0.125                | 0.585        | 0.187            | 0.721                           | 0.938         | 1.119         | 1.092           | 1.306 | 0.819   | 1.279 |
|                       | Left tilt   | 0.751                 | 0.312                  | 0.018                  | 0.369          | 0.521                | 0.109                | 0.630        | 0.193            | 0.944                           | 1.120         | 1.381         | 1.290           | 1.574 | 0.962   | 1.483 |
|                       | Right cheek | 0.634                 | 0.126                  | 0.016                  | 0.151          | 0.232                | 0.133                | 0.365        | 0.085            | 0.719                           | 0.785         | 0.999         | 0.882           | 1.084 | 0.735   | 0.967 |
|                       | Right tilt  | 0.755                 | 0.159                  | 0.015                  | 0.171          | 0.228                | 0.146                | 0.374        | 0.077            | 0.832                           | 0.926         | 1.129         | 0.998           | 1.206 | 0.847   | 1.075 |
| Body Worn             | Back side   | 0.392                 | 0.130                  | 0.074                  | 0.142          | 0.096                | 0.059                | 0.155        | 0.002            | 0.394                           | 0.534         | 0.547         | 0.562           | 0.549 | 0.468   | 0.564 |
|                       | Front side  | 0.385                 | 0.074                  | 0.014                  | 0.114          | 0.001                | 0.001                | 0.002        | 0.002            | 0.387                           | 0.499         | 0.387         | 0.400           | 0.389 | 0.401   | 0.402 |
| Hotspot               | Back side   | 0.469                 | 0.195                  | 0.215                  | 0              | 0.090                | 0.196                | 0.286        | 0.014            | 0.483                           | 0.684         | 0.755         | 0.774           | 0.769 | 0.698   | 0.788 |
|                       | Front side  | 0.598                 | 0.213                  | 0.007                  | 0              | 0.063                | 0.001                | 0.064        | 0.019            | 0.617                           | 0.811         | 0.662         | 0.668           | 0.681 | 0.624   | 0.687 |
|                       | Left side   | 0.119                 | 0                      | 0.085                  | 0              | 0                    | 0.057                | 0.057        | 0                | 0.119                           | 0.204         | 0.176         | 0.204           | 0.176 | 0.204   | 0.204 |
|                       | Right side  | 0.075                 | 0.178                  | 0                      | 0              | 0.108                | 0                    | 0.108        | 0.053            | 0.128                           | 0.253         | 0.183         | 0.183           | 0.236 | 0.128   | 0.236 |
|                       | Top side    | 0.739                 | 0.288                  | 0.008                  | 0              | 0.290                | 0.087                | 0.377        | 0.089            | 0.828                           | 1.027         | 1.116         | 1.037           | 1.205 | 0.836   | 1.126 |
|                       | Bottom side | 0                     | 0                      | 0                      | 0              | 0                    | 0                    | 0            | 0                | 0                               | 0             | 0             | 0               | 0     | 0       | 0     |
| Product Specific 10-g | Back side   | 0                     | 0                      | 0                      | 0.883          | 0.500                | 0.452                | 0.952        | 0                | 0                               | 0.883         | 0.952         | 0.5             | 0.952 | 0       | 0.5   |
|                       | Front side  | 0                     | 0                      | 0                      | 0.465          | 0.443                | 0.103                | 0.546        | 0                | 0                               | 0.465         | 0.546         | 0.44            | 0.546 | 0       | 0.443 |
|                       | Left side   | 0                     | 0                      | 0                      | 0.149          | 0                    | 0.194                | 0.194        | 0                | 0                               | 0.149         | 0.194         | 0               | 0.194 | 0       | 0     |
|                       | Right side  | 0                     | 0                      | 0                      | 0.462          | 0.300                | 0                    | 0.3          | 0                | 0                               | 0.462         | 0.3           | 0.3             | 0.3   | 0       | 0.3   |
|                       | Top side    | 0                     | 0                      | 0                      | 1.117          | 0.807                | 0.364                | 1.171        | 0                | 0                               | 1.117         | 1.171         | 0.81            | 1.171 | 0       | 0.807 |
|                       | Bottom side | 0                     | 0                      | 0                      | 0              | 0                    | 0                    | 0            | 0                | 0                               | 0             | 0             | 0               | 0     | 0       | 0     |

**SAR Simultaneous Tx Combination of Main antenna with WiFi/BT Scenario (BT: Power level A)**

| Test Position         |             | Main antenna | WiFi 2.4G    | WiFi 2.4G    | WiFi 2.4G | WiFi 5G      | WiFi 5G      | WiFi    | BT            | Simultaneously Transmission SAR |       |       |
|-----------------------|-------------|--------------|--------------|--------------|-----------|--------------|--------------|---------|---------------|---------------------------------|-------|-------|
|                       |             | MaxSAR       | Ant1 (Core0) | Ant2 (Core1) | MIMO      | Ant1 (Core0) | Ant2 (Core1) | 5G MIMO | Power Level A |                                 |       |       |
|                       |             | 1            | 2            | 3            | 4         | 5            | 6            | 7       | 8             | 1+8                             | 1+3+8 | 1+6+8 |
| Body Worn             | Back side   | 0.510        | 0.130        | 0.074        | 0.142     | 0.096        | 0.059        | 0.155   | 0.056         | 0.566                           | 0.640 | 0.625 |
|                       | Front side  | 0.411        | 0.074        | 0.014        | 0.114     | 0.001        | 0.001        | 0.002   | 0.065         | 0.476                           | 0.490 | 0.477 |
| Hotspot               | Front side  | 0.469        | 0.195        | 0.215        | 0         | 0.090        | 0.196        | 0.286   | 0.166         | 0.635                           | 0.850 | 0.831 |
|                       | Back side   | 0.363        | 0.213        | 0.007        | 0         | 0.063        | 0.001        | 0.064   | 0.151         | 0.514                           | 0.521 | 0.515 |
|                       | Left side   | 0.364        | 0            | 0.085        | 0         | 0            | 0.057        | 0.057   | 0             | 0.364                           | 0.449 | 0.421 |
|                       | Right side  | 0.199        | 0.178        | 0            | 0         | 0.108        | 0            | 0.108   | 0.061         | 0.260                           | 0.260 | 0.260 |
|                       | Top side    | 0            | 0.288        | 0.008        | 0         | 0.290        | 0.087        | 0.377   | 0.391         | 0.391                           | 0.399 | 0.478 |
|                       | Bottom side | 0.514        | 0            | 0            | 0         | 0            | 0            | 0       | 0             | 0.514                           | 0.514 | 0.514 |
| Product Specific 10-g | Back side   | 0            | 0            | 0            | 0.883     | 0.500        | 0.452        | 0.952   | 0.290         | 0.29                            | 0.29  | 0.742 |
|                       | Front side  | 0            | 0            | 0            | 0.465     | 0.443        | 0.103        | 0.546   | 0.266         | 0.266                           | 0.266 | 0.369 |
|                       | Left side   | 0            | 0            | 0            | 0.149     | 0            | 0.194        | 0.194   | 0             | 0                               | 0     | 0.194 |
|                       | Right side  | 0            | 0            | 0            | 0.462     | 0.300        | 0            | 0.3     | 0.113         | 0.113                           | 0.113 | 0.113 |
|                       | Top side    | 0            | 0            | 0            | 1.117     | 0.807        | 0.364        | 1.171   | 0.556         | 0.556                           | 0.556 | 0.92  |
|                       | Bottom side | 0            | 0            | 0            | 0         | 0            | 0            | 0       | 0             | 0                               | 0     | 0     |

**SAR Simultaneous Tx Combination of Second antenna with WiFi/BT Scenario (BT: Power level A)**

| Test Position         |             | Second antenna | WiFi 2.4G    | WiFi 2.4G    | WiFi 2.4G | WiFi 5G      | WiFi 5G      | WiFi    | BT            | Simultaneously Transmission SAR |       |       |
|-----------------------|-------------|----------------|--------------|--------------|-----------|--------------|--------------|---------|---------------|---------------------------------|-------|-------|
|                       |             | MaxSAR         | Ant1 (Core0) | Ant2 (Core1) | MIMO      | Ant1 (Core0) | Ant2 (Core1) | 5G MIMO | Power Level A |                                 |       |       |
|                       |             | 1              | 2            | 3            | 4         | 5            | 6            | 7       | 8             | 1+8                             | 1+3+8 | 1+6+8 |
| Body Worn             | Back side   | 0.392          | 0.130        | 0.074        | 0.142     | 0.096        | 0.059        | 0.155   | 0.056         | 0.448                           | 0.522 | 0.507 |
|                       | Front side  | 0.385          | 0.074        | 0.014        | 0.114     | 0.001        | 0.001        | 0.002   | 0.065         | 0.450                           | 0.464 | 0.451 |
| Hotspot               | Front side  | 0.469          | 0.195        | 0.215        | 0         | 0.090        | 0.196        | 0.286   | 0.166         | 0.635                           | 0.850 | 0.831 |
|                       | Back side   | 0.598          | 0.213        | 0.007        | 0         | 0.063        | 0.001        | 0.064   | 0.151         | 0.749                           | 0.756 | 0.750 |
|                       | Left side   | 0.119          | 0            | 0.085        | 0         | 0            | 0.057        | 0.057   | 0             | 0.119                           | 0.204 | 0.176 |
|                       | Right side  | 0.075          | 0.178        | 0            | 0         | 0.108        | 0            | 0.108   | 0.061         | 0.136                           | 0.136 | 0.136 |
|                       | Top side    | 0.739          | 0.288        | 0.008        | 0         | 0.290        | 0.087        | 0.377   | 0.391         | 1.130                           | 1.138 | 1.217 |
|                       | Bottom side | 0              | 0            | 0            | 0         | 0            | 0            | 0       | 0             | 0                               | 0     | 0     |
| Product Specific 10-g | Back side   | 0              | 0            | 0            | 0.883     | 0.500        | 0.452        | 0.952   | 0.290         | 0.29                            | 0.29  | 0.742 |
|                       | Front side  | 0              | 0            | 0            | 0.465     | 0.443        | 0.103        | 0.546   | 0.266         | 0.266                           | 0.266 | 0.369 |
|                       | Left side   | 0              | 0            | 0            | 0.149     | 0            | 0.194        | 0.194   | 0             | 0                               | 0     | 0.194 |
|                       | Right side  | 0              | 0            | 0            | 0.462     | 0.300        | 0            | 0.3     | 0.113         | 0.113                           | 0.113 | 0.113 |
|                       | Top side    | 0              | 0            | 0            | 1.117     | 0.807        | 0.364        | 1.171   | 0.556         | 0.556                           | 0.556 | 0.92  |
|                       | Bottom side | 0              | 0            | 0            | 0         | 0            | 0            | 0       | 0             | 0                               | 0     | 0     |

**H-field strength test results test by Huawei Technologies Co., Ltd.**

| Charge amount | Frequency Range (kHz) | Distance (cm) | Test Position | Test Results(A/m) | Limit (A/m) | Conclusion |
|---------------|-----------------------|---------------|---------------|-------------------|-------------|------------|
| 10%           | 110~148               | 10cm          | Back side     | 0.138             | 1.63        | pass       |
| 10%           | 110~148               | 10cm          | Front side    | 0.135             | 1.63        | pass       |
| 10%           | 110~148               | 10cm          | Left side     | 0.129             | 1.63        | pass       |
| 10%           | 110~148               | 10cm          | Right side    | 0.131             | 1.63        | pass       |
| 10%           | 110~148               | 10cm          | Top side      | 0.133             | 1.63        | pass       |
| 10%           | 110~148               | 10cm          | Bottom side   | 0.135             | 1.63        | pass       |
| 50%           | 110~148               | 10cm          | Back side     | 0.139             | 1.63        | pass       |
| 50%           | 110~148               | 10cm          | Front side    | 0.137             | 1.63        | pass       |
| 50%           | 110~148               | 10cm          | Left side     | 0.131             | 1.63        | pass       |
| 50%           | 110~148               | 10cm          | Right side    | 0.133             | 1.63        | pass       |
| 50%           | 110~148               | 10cm          | Top side      | 0.133             | 1.63        | pass       |
| 50%           | 110~148               | 10cm          | Bottom side   | 0.135             | 1.63        | pass       |
| 90%           | 110~148               | 10cm          | Back side     | 0.140             | 1.63        | pass       |
| 90%           | 110~148               | 10cm          | Front side    | 0.132             | 1.63        | pass       |
| 90%           | 110~148               | 10cm          | Left side     | 0.127             | 1.63        | pass       |
| 90%           | 110~148               | 10cm          | Right side    | 0.132             | 1.63        | pass       |
| 90%           | 110~148               | 10cm          | Top side      | 0.135             | 1.63        | pass       |
| 90%           | 110~148               | 10cm          | Bottom side   | 0.133             | 1.63        | pass       |

The device also supports Tx wireless charging function. When the device is working on Tx wireless charging mode, other Tx antennas(2G/3G/4G/WIFI/BT) can still work. So this simultaneous transmission should also be considered.

Per KDB 447498D01, the following test exclusion conditions should be satisfied for all combinations of simultaneous transmission configurations:

The  $[\Sigma \text{ of (the highest measured or estimated SAR for each standalone antenna configuration, adjusted for maximum tune-up tolerance) / 1.6 W/kg} + [\Sigma \text{ of MPE ratios}]] \leq 1.0$ .

Similarly For Product Specific 10-g SAR, the test exclusion conditions should be:

The  $[\Sigma \text{ of (the highest measured or estimated SAR for each standalone antenna configuration, adjusted for maximum tune-up tolerance) / 4.0 W/kg} + [\Sigma \text{ of MPE ratios}]] \leq 1.0$ .

The RF exposure ratios for all combinations of simultaneous transmission configurations are calculated as below:

| exposure condition        | MAX Simultaneous Transmission SAR (W/kg) | SAR Limit (W/kg) | Max H-field (A/m) | MPE Limit (A/m) | RF exposure ratio ( $\leq 1.0$ ) | Conclusion |
|---------------------------|------------------------------------------|------------------|-------------------|-----------------|----------------------------------|------------|
| Body-worn                 | 0.682                                    | 1.6              | 0.140             | 1.63            | 0.512                            | PASS       |
| Hotspot                   | 1.217                                    | 1.6              | 0.140             | 1.63            | 0.847                            | PASS       |
| Product Specific 10-g SAR | 1.171                                    | 4.0              | 0.140             | 1.63            | 0.379                            | PASS       |

Simultaneous transmission RF exposure ratios for SAR & MPE(H-Field)

Conclusion:

According to the KDB 690783 D01 section 1) d) i), when the sum of 1-g SAR applies for simultaneous transmission SAR test exclusion, the highest sum of 1-g SAR according to the highest reported stand-alone SAR values is used, and the highest Reported SAR for simultaneous transmission exposure conditions is 1.574 W/kg

## 11 Measurement Uncertainty

Per KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz, when the highest measured 1-g SAR within a frequency band is  $< 1.5$  W/kg, the extensive SAR measurement uncertainty analysis described in IEEE Std 1528- 2013 is not required in SAR reports submitted for equipment approval. This also applies to the 10-g SAR required for phablets in KDB Publication 648474.

## **ANNEX A: Test Layout**

(Please See R1904H0073 SAR ANNEX A Test Layout)

## **ANNEX B: System Check Results**

(Please See R1904H0073 SAR ANNEX B System Check Results & ANNEX C Highest Graph Results)

## **ANNEX C: Highest Graph Results**

(Please See R1904H0073 SAR ANNEX B System Check Results & ANNEX C Highest Graph Results)

## **ANNEX D: Probe Calibration Certificate**

(Please See R1904H0073 SAR ANNEX D-L Calibration Certificate)

## **ANNEX E: D750V3 Dipole Calibration Certificate**

(Please See R1904H0073 SAR ANNEX D-L Calibration Certificate)

## **ANNEX F: D835V2 Dipole Calibration Certificate**

(Please See R1904H0073 SAR ANNEX D-L Calibration Certificate)

## **ANNEX G: D1750V2 Dipole Calibration Certificate**

(Please See R1904H0073 SAR ANNEX D-L Calibration Certificate)

## **ANNEX H: D1900V2 Dipole Calibration Certificate**

(Please See R1904H0073 SAR ANNEX D-L Calibration Certificate)

## **ANNEX I: D2450V2 Dipole Calibration Certificate**

(Please See R1904H0073 SAR ANNEX D-L Calibration Certificate)

## **ANNEX J: D2600V2 Dipole Calibration Certificate**

(Please See R1904H0073 SAR ANNEX D-L Calibration Certificate)

## **ANNEX K: D5GHzV2 Dipole Calibration Certificate**

(Please See R1904H0073 SAR ANNEX D-L Calibration Certificate)

## **ANNEX L: DAE4 Calibration Certificate**

(Please See R1904H0073 SAR ANNEX D-L Calibration Certificate)

## **ANNEX M: The EUT Appearances and Test Configuration**

(Please See R1904H0073 SAR ANNEX M SAR Test Setup&R1904H0073 SAR ANNEX M The EUT Appearances)

## ANNEX N: Product Change Description

# Huawei Technologies Co., Ltd.

### Difference Declaration Letter for FCC

Article 1: Difference description:

The difference between model **VOG-L04m** and model **VOG-L29m** is show in the below table:

|                      | Model            | VOG-L04m                                                                                                            | VOG-L29m                                                                                                            |
|----------------------|------------------|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Licensed Frequency   | LTE BAND         | FCC Band:<br>B2/B4/ B5/B7/B12/B17/B26/<br>B38/ B41 (2535~2655MHz)<br>/B66                                           | FCC Band:<br>B2/B4/ B5/B7/B12/B17/B26/<br>B38/ B41 (2535~2655MHz)                                                   |
|                      | UMTS BAND        | the same                                                                                                            | the same                                                                                                            |
|                      | GSM              | the same                                                                                                            | the same                                                                                                            |
|                      | IC               | the same                                                                                                            | the same                                                                                                            |
|                      | Antenna          | the same                                                                                                            | the same                                                                                                            |
|                      | NFC              | the same                                                                                                            | the same                                                                                                            |
| Unlicensed Frequency | Bluetooth        | the same                                                                                                            | the same                                                                                                            |
|                      | 2.4G Wi-Fi       | the same                                                                                                            | the same                                                                                                            |
|                      | 5.8G Wi-Fi       | the same                                                                                                            | the same                                                                                                            |
|                      | IC               | the same                                                                                                            | the same                                                                                                            |
|                      | Antenna          | the same                                                                                                            | the same                                                                                                            |
| Hardware             | Ram / Rom        | the same                                                                                                            | the same                                                                                                            |
|                      | Camera           | the same                                                                                                            | the same                                                                                                            |
|                      | PCB              | the same                                                                                                            | the same                                                                                                            |
|                      | USB Port         | the same                                                                                                            | the same                                                                                                            |
|                      | SIM              | one                                                                                                                 | two                                                                                                                 |
|                      | Hardware version | the same                                                                                                            | the same                                                                                                            |
| RF                   | RF circuit       | The hardware channel of WCDMA B4 and LTE B2/4/7 (include CA band) is different, Irrelevant to other frequency bands | The hardware channel of WCDMA B4 and LTE B2/4/7 (include CA band) is different, Irrelevant to other frequency bands |
| Appearance           | Dimension        | the same                                                                                                            | the same                                                                                                            |
|                      | Color            | different                                                                                                           | different                                                                                                           |
| Accessory            | Battery          | the same                                                                                                            | the same                                                                                                            |
|                      | External Charger | the same                                                                                                            | the same                                                                                                            |
|                      | USB label        | the same                                                                                                            | the same                                                                                                            |
|                      | Earphone         | the same                                                                                                            | the same                                                                                                            |