

# SAR TEST REPORT

No. I21Z62219-SEM01

For

**vivo Mobile Communication Co., Ltd.**

**Mobile Phone**

**Model Name: V2127**

**with**

**Hardware Version: MP\_0.1**

**Software Version: PD2166DF\_EX\_A\_3.5.8**

**FCC ID: 2AUCY-V2127**

**Issued Date: 2022-1-26**

**Note:**

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of CTTL.

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## **REPORT HISTORY**

| <b>Report Number</b> | <b>Revision</b> | <b>Issue Date</b> | <b>Description</b>                                                                                       |
|----------------------|-----------------|-------------------|----------------------------------------------------------------------------------------------------------|
| I21Z62219-SEM01      | Rev.0           | 2022-1-5          | Initial creation of test report                                                                          |
| I21Z62219-SEM01      | Rev.1           | 2022-1-13         | 1. Add diagonal dimension of the EUT at Section 13.5<br>2. Add Sensor Triggering Data Summary at ANNEX I |
| I21Z62219-SEM01      | Rev.2           | 2022-1-14         | Update ANNEX I                                                                                           |
| I21Z62219-SEM01      | Rev.3           | 2022-1-17         | 1. Update the table 2.1 on page 6<br>2. Update the Annex I on page 479                                   |
| I21Z62219-SEM01      | Rev.4           | 2022-1-26         | Add the conducted power of n77/78 for 70M bandwidth in section 11.4.                                     |

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## 1 Test Laboratory

### 1.1 Testing Location

|               |                                                                                               |
|---------------|-----------------------------------------------------------------------------------------------|
| Company Name: | CTTL(Shouxiang)                                                                               |
| Address:      | No. 51 Shouxiang Science Building, Xueyuan Road, Haidian District, Beijing, P. R. China100191 |

### 1.2 Testing Environment

|                             |              |
|-----------------------------|--------------|
| Temperature:                | 18°C~25°C,   |
| Relative humidity:          | 30%~ 70%     |
| Ground system resistance:   | < 0.5        |
| Ambient noise & Reflection: | < 0.012 W/kg |

### 1.3 Project Data

|                     |                   |
|---------------------|-------------------|
| Project Leader:     | Qi Dianyuan       |
| Test Engineer:      | Lin Xiaojun       |
| Testing Start Date: | November 22, 2021 |
| Testing End Date:   | December 16, 2021 |

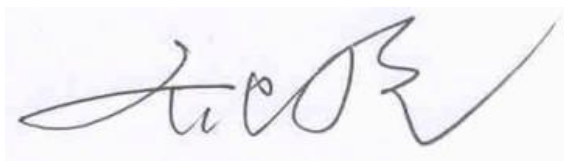
### 1.4 Signature



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Lin Xiaojun

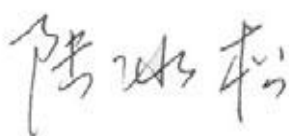
(Prepared this test report)



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Qi Dianyuan

(Reviewed this test report)



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Lu Bingsong

Deputy Director of the laboratory

(Approved this test report)

## 2 Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for vivo Mobile Communication Co., Ltd. Mobile Phone V2127 are as follows:

**Table 2.1: Highest Reported SAR -Standalone(1g)**

| Mode         |                 | Antenna | Highest Reported SAR (1g) |               |             |
|--------------|-----------------|---------|---------------------------|---------------|-------------|
|              |                 |         | Head SAR                  | Body-worn SAR | Hotspot SAR |
| GSM          | GSM 850         | 13      | 0.23                      | 0.31          | 0.31        |
|              | GSM 850         | 41      | 0.27                      | 0.47          | 0.47        |
|              | PCS 1900        | 13      | 0.55                      | 0.45          | 0.71        |
|              | PCS 1900        | 31      | 0.12                      | 0.22          | 0.45        |
| WCDMA        | UMTS FDD 2      | 13      | 0.84                      | 0.69          | 0.53        |
|              | UMTS FDD 2      | 31      | 0.23                      | 0.40          | 0.44        |
|              | UMTS FDD 4      | 13      | 0.76                      | 0.64          | 0.51        |
|              | UMTS FDD 4      | 31      | 0.25                      | 0.32          | 0.53        |
|              | UMTS FDD 5      | 13      | 0.22                      | 0.24          | 0.24        |
|              | UMTS FDD 5      | 41      | 0.25                      | 0.40          | 0.40        |
| LTE          | LTE Band 2      | 13      | 0.72                      | 0.49          | 0.51        |
|              | LTE Band 2      | 31      | 0.21                      | 0.28          | 0.50        |
|              | LTE Band 4      | 13      | 0.58                      | 0.30          | 0.34        |
|              | LTE Band 4      | 31      | 0.33                      | 0.28          | 0.49        |
|              | LTE Band 5      | 13      | 0.25                      | 0.24          | 0.24        |
|              | LTE Band 5      | 41      | 0.24                      | 0.32          | 0.32        |
|              | LTE Band 7      | 13      | 0.52                      | 0.64          | 0.58        |
|              | LTE Band 7      | 31      | 0.34                      | 0.16          | 0.27        |
|              | LTE Band 12     | 13      | 0.22                      | 0.07          | 0.07        |
|              | LTE Band 12     | 41      | 0.24                      | 0.24          | 0.24        |
|              | LTE Band 13     | 13      | 0.20                      | 0.12          | 0.12        |
|              | LTE Band 13     | 41      | 0.11                      | 0.15          | 0.15        |
|              | LTE Band 38     | 13      | 0.27                      | 0.23          | 0.47        |
|              | LTE Band 38     | 31      | 0.16                      | 0.28          | 0.28        |
|              | LTE Band 41     | 13      | 0.20                      | 0.19          | 0.42        |
|              | LTE Band 41     | 31      | 0.14                      | 0.32          | 0.32        |
|              | LTE Band 66     | 13      | 0.41                      | 0.43          | 0.41        |
|              | LTE Band 66     | 31      | 0.23                      | 0.24          | 0.46        |
| NR SA/NSA    | N7              | 11      | 0.31                      | 0.33          | 0.39        |
|              | N7              | 13      | 0.55                      | 0.63          | 0.45        |
|              | N66             | 11      | 0.10                      | 0.05          | 0.08        |
|              | N66             | 13      | 0.51                      | 0.25          | 0.28        |
|              | N77 3450M-3550M | 11      | 0.27                      | 0.43          | 0.42        |
|              | N77 3450M-3550M | 12      | 0.48                      | 0.24          | 0.44        |
|              | N77 3700M-3980M | 11      | 0.39                      | 0.49          | 0.58        |
|              | N77 3700M-3980M | 12      | 0.29                      | 0.09          | 0.13        |
|              | N78             | 11      | 0.50                      | 0.26          | 0.44        |
|              | N78             | 12      | 0.33                      | 0.08          | 0.16        |
| WLAN 2.4 GHz |                 | 22      | 0.16                      | 0.12          | 0.12        |
| WLAN 5 GHz   |                 | 22      | 0.34                      | 0.67          | 0.35        |
| BT           |                 | 22      | 0.08                      | 0.03          | /           |

**Note:** The device have similar frequency in some LTE bands : LTEB12/17, since the supported frequency spans for the smaller LTE bands are completely cover by the larger LTE bands and the channel bandwidth and other operating parameters for the smaller band be fully supported by the larger band, therefore, only larger LTE bands were required to be tested for SAR.

The SAR values found for the Mobile Phone are below the maximum recommended levels of 1.6 W/kg as averaged over any 1g tissue according to the ANSI C95.1-1992.

For body operation, this device has been tested and meets FCC RF exposure guidelines when used with any accessory that contains no metal and which provides a minimum separation distance of 10 mm for hotspot and 15mm for body worn between this device and the body of the user. Use of other accessories may not ensure compliance with FCC RF exposure guidelines.

The EUT battery must be fully charged and checked periodically during the test to ascertain uniform power output.

The measurement together with the test system set-up is described in annex C. A detailed description of the equipment under test can be found in chapter 4 of this test report.

**Table 2.2: Highest Reported SAR -Simultaneous transmission**

| reported SAR 1g (W/kg) |       |                    |           |        |      |                 |
|------------------------|-------|--------------------|-----------|--------|------|-----------------|
| Head                   |       | WWAN               |           | WIFI5G | BT   | WWAN+WiFi5G +BT |
|                        |       | LTE Band2<br>ANT13 | N78 ANT11 |        |      |                 |
| Cheek                  | Right | 0.6                | 0.5       | 0.16   | 0.03 | 1.29            |

The detail for simultaneous transmission consideration is described in chapter 15.

**The highest reported SAR for Head, Body Worn, Hotspot, and Simultaneous transmission exposure conditions are 0.84W/kg, 0.69W/kg, 0.71W/kg, and 1.29W/kg**

### 3 Client Information

#### 3.1 Applicant Information

|                 |                                                             |
|-----------------|-------------------------------------------------------------|
| Company Name:   | vivo Mobile Communication Co., Ltd.                         |
| Address/Post:   | No.168 Jinghai East Rd.,Chang'an, Dongguan, Guangdong,China |
| Contact Person: | xiangjianfeng                                               |
| E-mail:         | xiangjianfeng@vivo.com                                      |
| Telephone:      | 188 2371 0059                                               |
| Fax:            | /                                                           |

#### 3.2 Manufacturer Information

|                 |                                                             |
|-----------------|-------------------------------------------------------------|
| Company Name:   | vivo Mobile Communication Co., Ltd.                         |
| Address/Post:   | No.168 Jinghai East Rd.,Chang'an, Dongguan, Guangdong,China |
| Contact Person: | xiangjianfeng                                               |
| E-mail:         | xiangjianfeng@vivo.com                                      |
| Telephone:      | 188 2371 0059                                               |
| Fax:            | /                                                           |

## 4 Equipment Under Test (EUT) and Ancillary Equipment (AE)

### 4.1 About EUT

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Description:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Mobile Phone                                                                                                        |
| Model name:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | V2127                                                                                                               |
| Tested mode(s):                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | GSM8501900,<br>WCDMA1900/1700/850,<br>LTE Band 2/4/5/7/12/13/17/66/38/41<br>n7/n66/n77/n78,<br>BT, Wi-Fi (2.4G/5G), |
| Tested Tx Frequency:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 824 – 849 MHz (GSM 850)                                                                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1850 – 1910 MHz (GSM 1900)                                                                                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 824–849 MHz (WCDMA 850 Band V)                                                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1710 – 1755 MHz (WCDMA 1700 Band IV)                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1850–1910 MHz (WCDMA1900 Band II)                                                                                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1850 – 1910 MHz(LTE Band 2)                                                                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1710 – 1755 MHz (LTE Band 4)                                                                                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 824 – 849 MHz (LTE Band 5)                                                                                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2500 – 2570 MHz(LTE Band 7)                                                                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 699 – 716 MHz (LTE Band 12)                                                                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 777 –787 MHz (LTE Band 13)                                                                                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2570 – 2620 MHz (LTE Band 38)                                                                                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2496 – 2690 MHz (LTE Band 41)                                                                                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1710 – 1780 MHz (LTE Band 66)                                                                                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2500 – 2570 MHz (NR n7)                                                                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2570 – 2620 MHz (NR n66)                                                                                            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 3450 – 3550 MHz (NR n77)                                                                                            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 3700 – 3980 MHz (NR n77)                                                                                            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 3300 – 3800 MHz (NR n78)                                                                                            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2402 – 2480 MHz (Bluetooth)                                                                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2412 – 2462 MHz (Wi-Fi 2.4G)                                                                                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 5150-5825 MHz (Wi-Fi 5G)                                                                                            |
| GPRS/EGPRS Multislot Class:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 12                                                                                                                  |
| GPRS capability Class:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | B                                                                                                                   |
| Antenna type:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Integrated antenna                                                                                                  |
| Hotspot mode:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Support                                                                                                             |
| <p>Note:</p> <p>1. The device have similar frequency in some LTE bands : LTEB12/17, since the supported frequency spans for the smaller LTE bands are completely cover by the larger LTE bands and the channel bandwidth and other operating parameters for the smaller band be fully supported by the larger band, therefore, only larger LTE bands were required to be tested for SAR</p> <p>2. For 5G NR test, using FTM (Factory Test Mode) to perform SAR with default 100% transmission.</p> <p>3. For WiFi 5G, hotspot mode is only applied in UNII-1 and UNII-3.</p> |                                                                                                                     |

#### 4.2 Internal Identification of EUT used during the test

| EUT ID* | IMEI/SN                            | HW     | SW Version          |
|---------|------------------------------------|--------|---------------------|
| EUT1    | 863582059997430<br>863582059997422 | MP_0.1 | PD2166DF_EX_A_3.5.8 |
| EUT2    | 863582059997190<br>863582059997182 | MP_0.1 | PD2166DF_EX_A_3.5.8 |
| EUT3    | 863582059997331<br>863582059997323 | MP_0.1 | PD2166DF_EX_A_3.5.8 |
| EUT4    | 863582059996754<br>863582059996747 | MP_0.1 | PD2166DF_EX_A_3.5.8 |
| EUT5    | 863582059997638<br>863582059997620 | MP_0.1 | PD2166DF_EX_A_3.5.8 |

\*EUT ID: is used to identify the test sample in the lab internally.

**Note:** It is performed to test SAR with the EUT3-5 and conducted power with the EUT1-2.

#### 4.3 Internal Identification of AE used during the test

| AE ID* | Description | Model | SN | Manufacturer                    |
|--------|-------------|-------|----|---------------------------------|
| AE1    | Battery     | B-T6  | /  | Dongguan NVT Technology Co.,Ltd |
| AE2    | Headset     | XE160 | /  | /                               |

\*AE ID: is used to identify the test sample in the lab internally.

## 5 TEST METHODOLOGY

### 5.1 Applicable Limit Regulations

**ANSI C95.1–1992:** IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.

It specifies the maximum exposure limit of **1.6 W/kg** as averaged over any 1 gram of tissue for portable devices being used within 20 cm of the user in the uncontrolled environment.

### 5.2 Applicable Measurement Standards

**IEEE 1528–2013:** Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques.

**KDB447498 D01: General RF Exposure Guidance v06:** Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies.

**KDB648474 D04 Handset SAR v01r03:** SAR Evaluation Considerations for Wireless Handsets.

**KDB941225 D01 SAR test for 3G devices v03r01:** SAR Measurement Procedures for 3G Devices

**KDB941225 D05 SAR for LTE Devices v02r05:** SAR Evaluation Considerations for LTE Devices

**KDB941225 D06 Hotspot Mode SAR v02r01:** SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities

**KDB248227 D01 802.11 Wi-Fi SAR v02r02:** SAR GUIDANCE FOR IEEE 802.11 (Wi-Fi) TRANSMITTERS

**KDB865664 D01 SAR measurement 100 MHz to 6 GHz v01r04:** SAR Measurement Requirements for 100 MHz to 6 GHz.

**KDB865664 D02 RF Exposure Reporting v01r02:** RF Exposure Compliance Reporting and Documentation Considerations

## 6 Specific Absorption Rate (SAR)

### 6.1 Introduction

SAR is related to the rate at which energy is absorbed per unit mass in an object exposed to a radio field. The SAR distribution in a biological body is complicated and is usually carried out by experimental techniques or numerical modeling. The standard recommends limits for two tiers of groups, occupational/controlled and general population/uncontrolled, based on a person's awareness and ability to exercise control over his or her exposure. In general, occupational/controlled exposure limits are higher than the limits for general population/uncontrolled.

### 6.2 SAR Definition

The SAR definition is the time derivative (rate) of the incremental energy (  $dW$  ) absorbed by (dissipated in) an incremental mass (  $dm$  ) contained in a volume element (  $dv$  ) of a given density (  $\rho$  ). The equation description is as below:

$$SAR = \frac{d}{dt} \left( \frac{dW}{dm} \right) = \frac{d}{dt} \left( \frac{dW}{\rho dv} \right)$$

SAR is expressed in units of Watts per kilogram (W/kg)

SAR measurement can be either related to the temperature elevation in tissue by

$$SAR = c \left( \frac{\delta T}{\delta t} \right)$$

Where: C is the specific heat capacity,  $\delta T$  is the temperature rise and  $\delta t$  is the exposure duration, or related to the electrical field in the tissue by

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

Where:  $\sigma$  is the conductivity of the tissue,  $\rho$  is the mass density of tissue and  $E$  is the RMS electrical field strength.

However for evaluating SAR of low power transmitter, electrical field measurement is typically applied.

## 7 Tissue Simulating Liquids

The temperature of the tissue-equivalent medium used during measurement must also be within 18 °C to 25 °C and within  $\pm 2$  °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; for example, when the parameters are marginal at the beginning of the measurement series.

The dielectric constant ( $\epsilon_r$ ) and conductivity ( $\sigma$ ) of typical tissue-equivalent media recipes are expected to be within  $\pm 5\%$  of the required target values; but for SAR measurement systems that have implemented the SAR error compensation algorithms documented in IEEE Std 1528-2013, to automatically compensate the measured SAR results for deviations between the measured and required tissue dielectric parameters, the tolerance for  $\epsilon_r$  and  $\sigma$  may be relaxed to  $\pm 10\%$ . This is limited to frequencies  $\leq 3$  GHz.

### 7.1 Targets for tissue simulating liquid

**Table 7.1: Targets for tissue simulating liquid**

| Frequency(MHz) | Liquid Type | Conductivity( $\sigma$ ) | $\pm 10\%$ Range | Permittivity( $\epsilon$ ) | $\pm 10\%$ Range |
|----------------|-------------|--------------------------|------------------|----------------------------|------------------|
| 750            | Head        | 0.89                     | 0.80~0.98        | 41.94                      | 37.75~46.13      |
| 835            | Head        | 0.90                     | 0.81~0.99        | 41.5                       | 37.35~45.65      |
| 1750           | Head        | 1.40                     | 1.26~1.54        | 40.0                       | 36~44            |
| 1900           | Head        | 1.40                     | 1.26~1.54        | 40.0                       | 36~44            |
| 2450           | Head        | 1.80                     | 1.62~1.98        | 39.2                       | 35.28~43.12      |
| 2600           | Head        | 1.96                     | 1.76~2.16        | 39.01                      | 35.11~42.91      |

**Table 7.2: Targets for tissue simulating liquid**

| Frequency(MHz) | Liquid Type | Conductivity( $\sigma$ ) | $\pm 5\%$ Range | Permittivity( $\epsilon$ ) | $\pm 5\%$ Range |
|----------------|-------------|--------------------------|-----------------|----------------------------|-----------------|
| 3700           | Head        | 3.12                     | 2.96~3.28       | 37.70                      | 35.82~39.59     |
| 3900           | Head        | 3.32                     | 3.15~3.49       | 37.47                      | 35.6~39.34      |
| 5250           | Head        | 4.71                     | 4.47~4.95       | 35.93                      | 34.13~37.73     |
| 5600           | Head        | 5.07                     | 4.82~5.32       | 35.53                      | 33.8~37.3       |
| 5750           | Head        | 5.22                     | 4.96~5.48       | 35.36                      | 33.59~37.13     |

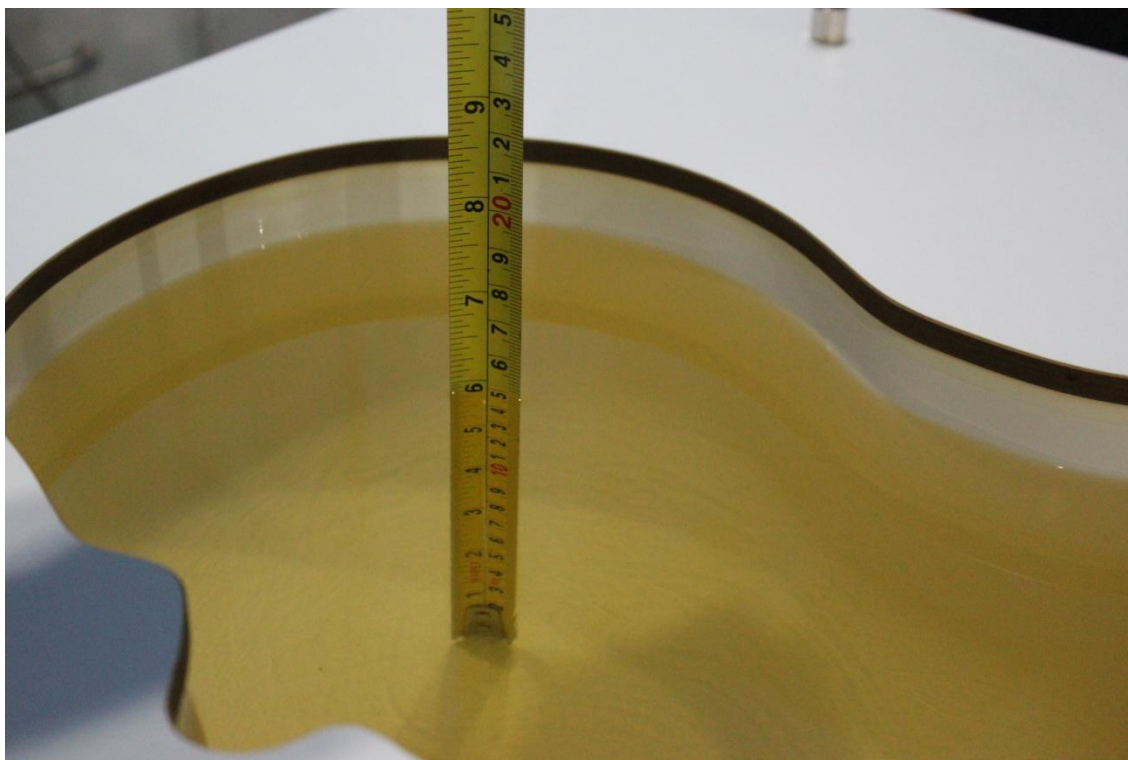
### 7.2 Dielectric Performance

**Table 7.3: Dielectric Performance of Tissue Simulating Liquid**

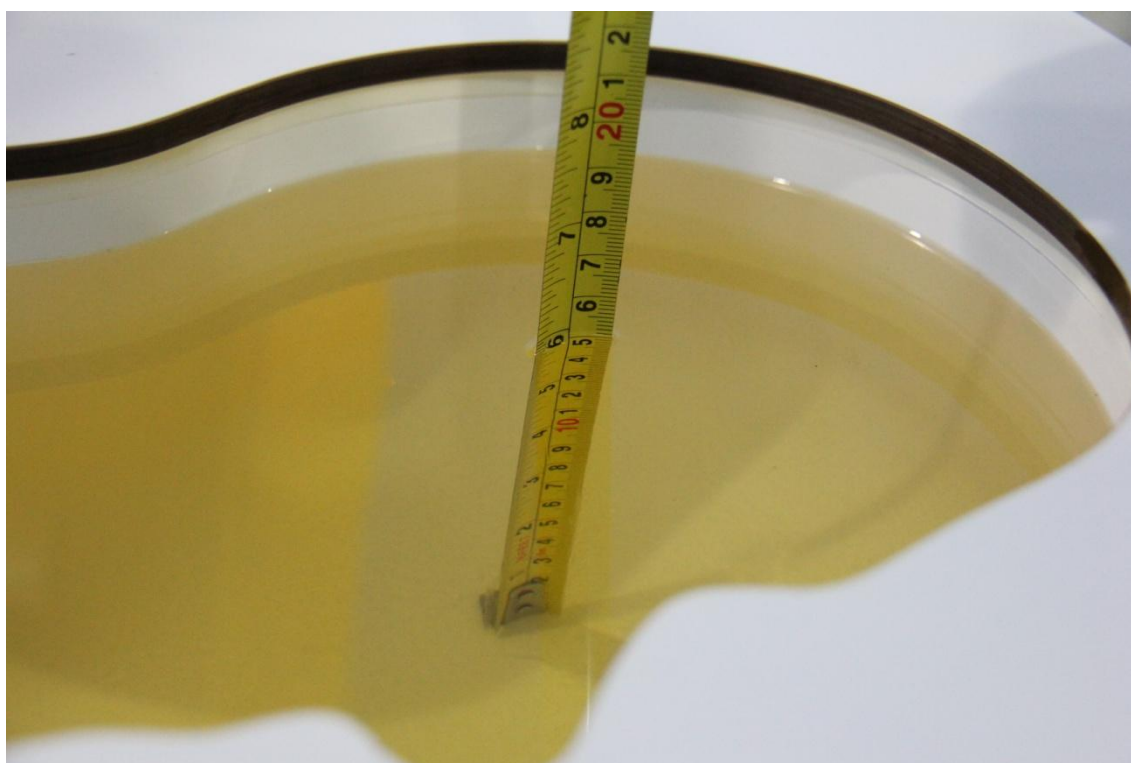
| Measurement Date<br>yyyy/mm/dd | Frequency | Type | Permittivity<br>$\epsilon$ | Drift<br>(%) | Conductivity<br>$\sigma$ (S/m) | Drift<br>(%) |
|--------------------------------|-----------|------|----------------------------|--------------|--------------------------------|--------------|
| 2021/11/22                     | 750MHz    | Head | 44.24                      | 5.48%        | 0.8698                         | -2.27%       |
| 2021/11/25                     | 750MHz    | Head | 44.31                      | 5.65%        | 0.8103                         | -8.96%       |
| 2021/11/27                     | 750MHz    | Head | 44.4                       | 5.87%        | 0.8012                         | -9.98%       |
| 2021/12/9                      | 750MHz    | Head | 44.4                       | 5.87%        | 0.8261                         | -7.18%       |
| 2021/11/22                     | 835 MHz   | Head | 43.91                      | 5.81%        | 0.9063                         | 0.70%        |
| 2021/11/24                     | 835 MHz   | Head | 44.02                      | 6.07%        | 0.8458                         | -6.02%       |

|            |          |      |       |        |        |        |
|------------|----------|------|-------|--------|--------|--------|
| 2021/11/27 | 835 MHz  | Head | 44.11 | 6.29%  | 0.8332 | -7.42% |
| 2021/12/10 | 835 MHz  | Head | 44.11 | 6.29%  | 0.8623 | -4.19% |
| 2021/11/22 | 1750MHz  | Head | 41.92 | 4.59%  | 1.385  | 1.09%  |
| 2021/11/24 | 1750MHz  | Head | 41.75 | 4.17%  | 1.356  | -1.02% |
| 2021/11/26 | 1750MHz  | Head | 41.75 | 4.17%  | 1.356  | -1.02% |
| 2021/11/28 | 1750MHz  | Head | 41.84 | 4.39%  | 1.336  | -2.48% |
| 2021/12/11 | 1750MHz  | Head | 41.84 | 4.39%  | 1.341  | -2.12% |
| 2021/12/13 | 1750MHz  | Head | 41.75 | 4.17%  | 1.466  | 7.01%  |
| 2021/11/22 | 1900 MHz | Head | 41.92 | 4.80%  | 1.385  | -1.07% |
| 2021/11/24 | 1900 MHz | Head | 41.54 | 3.85%  | 1.453  | 3.79%  |
| 2021/11/27 | 1900 MHz | Head | 41.62 | 4.05%  | 1.431  | 2.21%  |
| 2021/12/9  | 1900 MHz | Head | 41.62 | 4.05%  | 1.437  | 2.64%  |
| 2021/12/13 | 1900 MHz | Head | 41.58 | 3.95%  | 1.495  | 6.79%  |
| 2021/12/7  | 2450 MHz | Head | 40.64 | 3.67%  | 1.871  | 3.94%  |
| 2021/11/22 | 2600 MHz | Head | 40.58 | 4.02%  | 2.025  | 3.32%  |
| 2021/11/24 | 2600 MHz | Head | 40.22 | 3.10%  | 2.035  | 3.83%  |
| 2021/11/27 | 2600 MHz | Head | 40.3  | 3.31%  | 2.005  | 2.30%  |
| 2021/12/10 | 2600 MHz | Head | 40.63 | 4.15%  | 2.049  | 4.54%  |
| 2021/12/12 | 2600 MHz | Head | 40.31 | 3.33%  | 2.005  | 2.30%  |
| 2021/12/11 | 3500 MHz | Head | 38.49 | 1.48%  | 2.781  | -4.43% |
| 2021/12/11 | 3700 MHz | Head | 38.33 | 1.67%  | 2.983  | -4.39% |
| 2021/12/16 | 5250 MHz | Head | 34.73 | -3.34% | 4.834  | 2.63%  |
| 2021/12/16 | 5600 MHz | Head | 34.03 | -4.22% | 5.231  | 3.18%  |
| 2021/12/16 | 5750 MHz | Head | 33.75 | -4.55% | 5.398  | 3.41%  |

Note: The liquid temperature is (22.0 -23.0)°C



**Picture 7-1 Liquid depth in the Head Phantom (750MHz)**



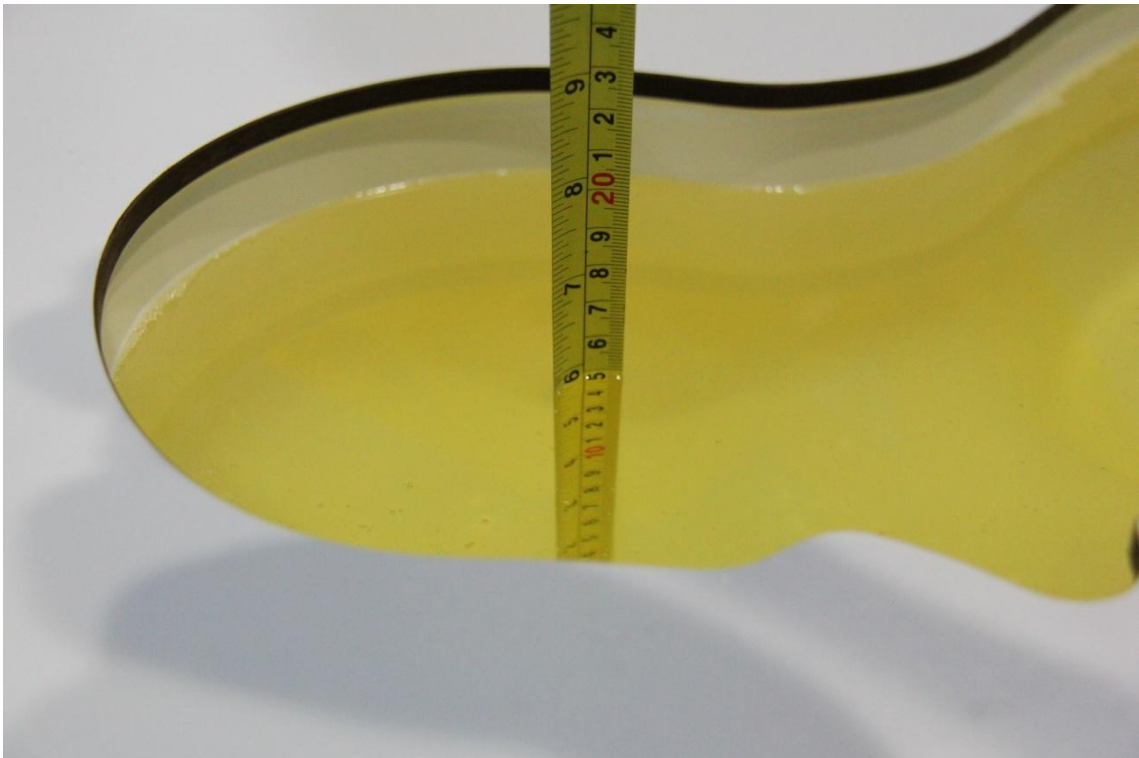
**Picture 7-2 Liquid depth in the Head Phantom (835 MHz)**



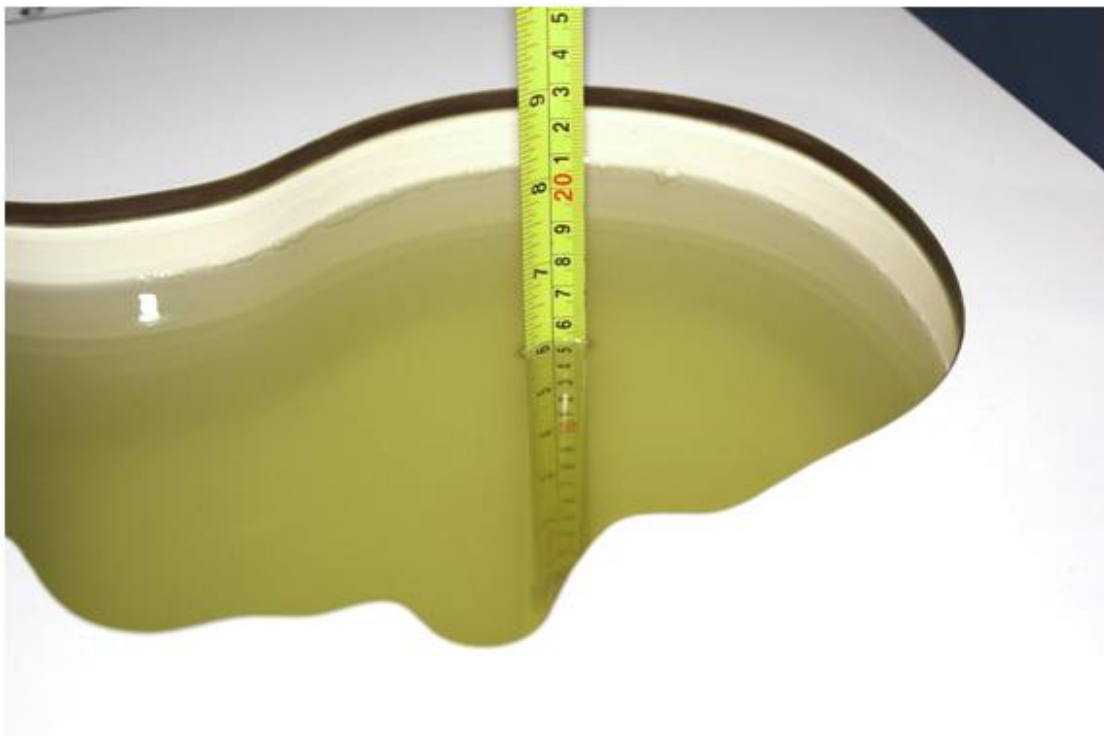
**Picture 7-3 Liquid depth in the Head Phantom (1750 MHz)**



**Picture 7-4 Liquid depth in the Head Phantom (1900 MHz)**



**Picture 7-5 Liquid depth in the Head Phantom (2450MHz)**



**Picture 7-6 Liquid depth in the Head Phantom (2600 MHz)**



Picture 7-7 Liquid depth in the Head Phantom (3500-3900 MHz)

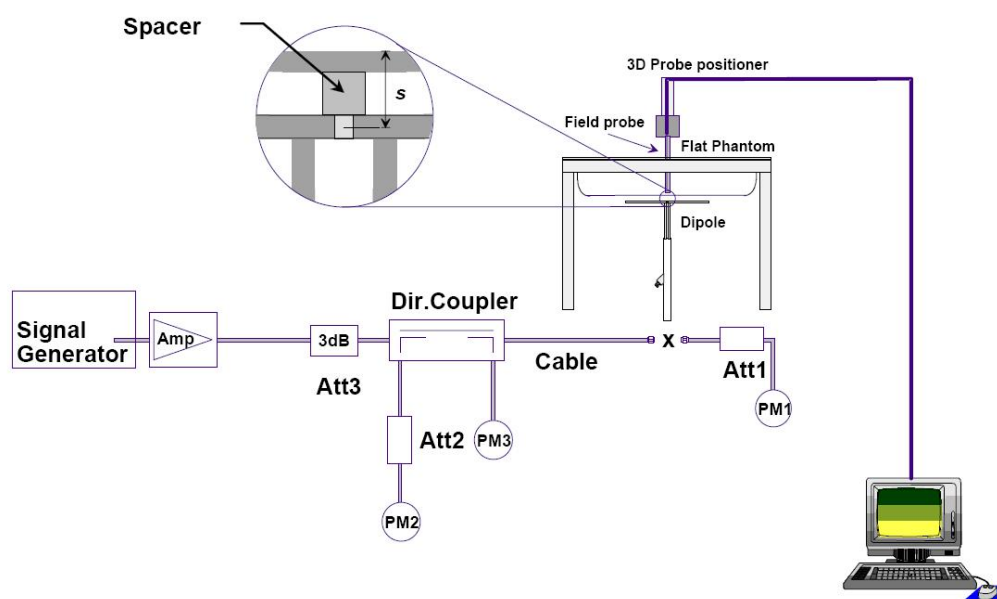


Picture 7-8 Liquid depth in the Head Phantom (5GHz)

## 8 System verification

### 8.1 System Setup

In the simplified setup for system evaluation, the DUT is replaced by a calibrated dipole and the power source is replaced by a continuous wave that comes from a signal generator. The calibrated dipole must be placed beneath the flat phantom section of the SAM twin phantom with the correct distance holder. The distance holder should touch the phantom surface with a light pressure at the reference marking and be oriented parallel to the long side of the phantom. The equipment setup is shown below:



Picture 8.1 System Setup for System Evaluation



Picture 8.2 Photo of Dipole Setup

## 8.2 System Verification

SAR system verification is required to confirm measurement accuracy, according to the tissue dielectric media, probe calibration points and other system operating parameters required for measuring the SAR of a test device. The system verification must be performed for each frequency band and within the valid range of each probe calibration point required for testing the device.

**Table 8.1: System Verification of Head**

| Calibration Date | Frequency | Target value (W/kg) |             | Measured value (W/kg) |             | Deviation    |             |
|------------------|-----------|---------------------|-------------|-----------------------|-------------|--------------|-------------|
|                  |           | 10 g Average        | 1 g Average | 10 g Average          | 1 g Average | 10 g Average | 1 g Average |
| 2021/11/22       | 750 MHz   | 5.65                | 8.68        | 5.72                  | 8.40        | 1.24%        | -3.23%      |
| 2021/11/25       | 750 MHz   | 5.65                | 8.68        | 5.52                  | 8.16        | -2.30%       | -5.99%      |
| 2021/11/27       | 750 MHz   | 5.65                | 8.68        | 5.48                  | 8.08        | -3.01%       | -6.91%      |
| 2021/12/9        | 750 MHz   | 5.65                | 8.68        | 5.88                  | 9.36        | 4.07%        | 7.83%       |
| 2021/11/22       | 835 MHz   | 6.24                | 9.63        | 5.80                  | 8.80        | -7.05%       | -8.62%      |
| 2021/11/24       | 835 MHz   | 6.24                | 9.63        | 5.92                  | 9.00        | -5.13%       | -6.54%      |
| 2021/11/27       | 835 MHz   | 6.24                | 9.63        | 5.88                  | 8.92        | -5.77%       | -7.37%      |
| 2021/12/10       | 835 MHz   | 6.24                | 9.63        | 5.84                  | 8.68        | -6.41%       | -9.87%      |
| 2021/11/22       | 1750 MHz  | 19.4                | 36.9        | 20.5                  | 37.9        | 5.57%        | 2.76%       |
| 2021/11/24       | 1750 MHz  | 19.4                | 36.9        | 19.2                  | 35.6        | -1.24%       | -3.41%      |
| 2021/11/26       | 1750 MHz  | 19.4                | 36.9        | 20.0                  | 36.4        | 3.09%        | -1.46%      |
| 2021/11/28       | 1750 MHz  | 19.4                | 36.9        | 19.9                  | 36.2        | 2.47%        | -1.79%      |
| 2021/12/11       | 1750 MHz  | 19.4                | 36.9        | 20.0                  | 36.8        | 3.30%        | -0.38%      |
| 2021/12/13       | 1750 MHz  | 19.4                | 36.9        | 20.0                  | 36.3        | 3.09%        | -1.57%      |
| 2021/11/22       | 1900 MHz  | 20.9                | 40.1        | 22.2                  | 42.0        | 6.41%        | 4.74%       |
| 2021/11/24       | 1900 MHz  | 20.9                | 40.1        | 22.1                  | 41.6        | 5.84%        | 3.74%       |
| 2021/11/27       | 1900 MHz  | 20.9                | 40.1        | 20.0                  | 38.0        | -4.31%       | -5.34%      |
| 2021/12/9        | 1900 MHz  | 20.9                | 40.1        | 20.2                  | 38.4        | -3.54%       | -4.14%      |
| 2021/12/13       | 1900 MHz  | 20.9                | 40.1        | 21.1                  | 40.0        | 0.86%        | -0.25%      |
| 2021/12/7        | 2450 MHz  | 24.9                | 53.3        | 25.2                  | 54.4        | 1.20%        | 2.06%       |
| 2021/11/22       | 2600 MHz  | 25.5                | 57.1        | 26.7                  | 58.8        | 4.78%        | 2.98%       |
| 2021/11/24       | 2600 MHz  | 25.5                | 57.1        | 26.8                  | 58.8        | 4.94%        | 2.98%       |
| 2021/11/27       | 2600 MHz  | 25.5                | 57.1        | 26.6                  | 58.4        | 4.16%        | 2.28%       |
| 2021/12/10       | 2600 MHz  | 25.5                | 57.1        | 24.8                  | 54.8        | -2.90%       | -4.03%      |
| 2021/12/12       | 2600 MHz  | 25.5                | 57.1        | 25.6                  | 56.4        | 0.24%        | -1.23%      |
| 2021/12/11       | 3500 MHz  | 25.2                | 67.3        | 25.3                  | 66.3        | 0.40%        | -1.49%      |
| 2021/12/11       | 3700 MHz  | 24.3                | 67.1        | 24.6                  | 67.1        | 1.23%        | 0.00%       |
| 2021/12/16       | 5250 MHz  | 22.7                | 79.5        | 22.6                  | 80.1        | -0.44%       | 0.75%       |
| 2021/12/16       | 5600 MHz  | 23.7                | 83.8        | 23.7                  | 85.3        | 0.00%        | 1.79%       |
| 2021/12/16       | 5750 MHz  | 22.7                | 81.0        | 23.4                  | 84.5        | 3.08%        | 4.32%       |

## 9 General Measurement Procedure

### 9.1 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.

### 9.2 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 D01v01r04 SAR measurement 100 MHz to 6 GHz.

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

### 9.3 Zoom Scan

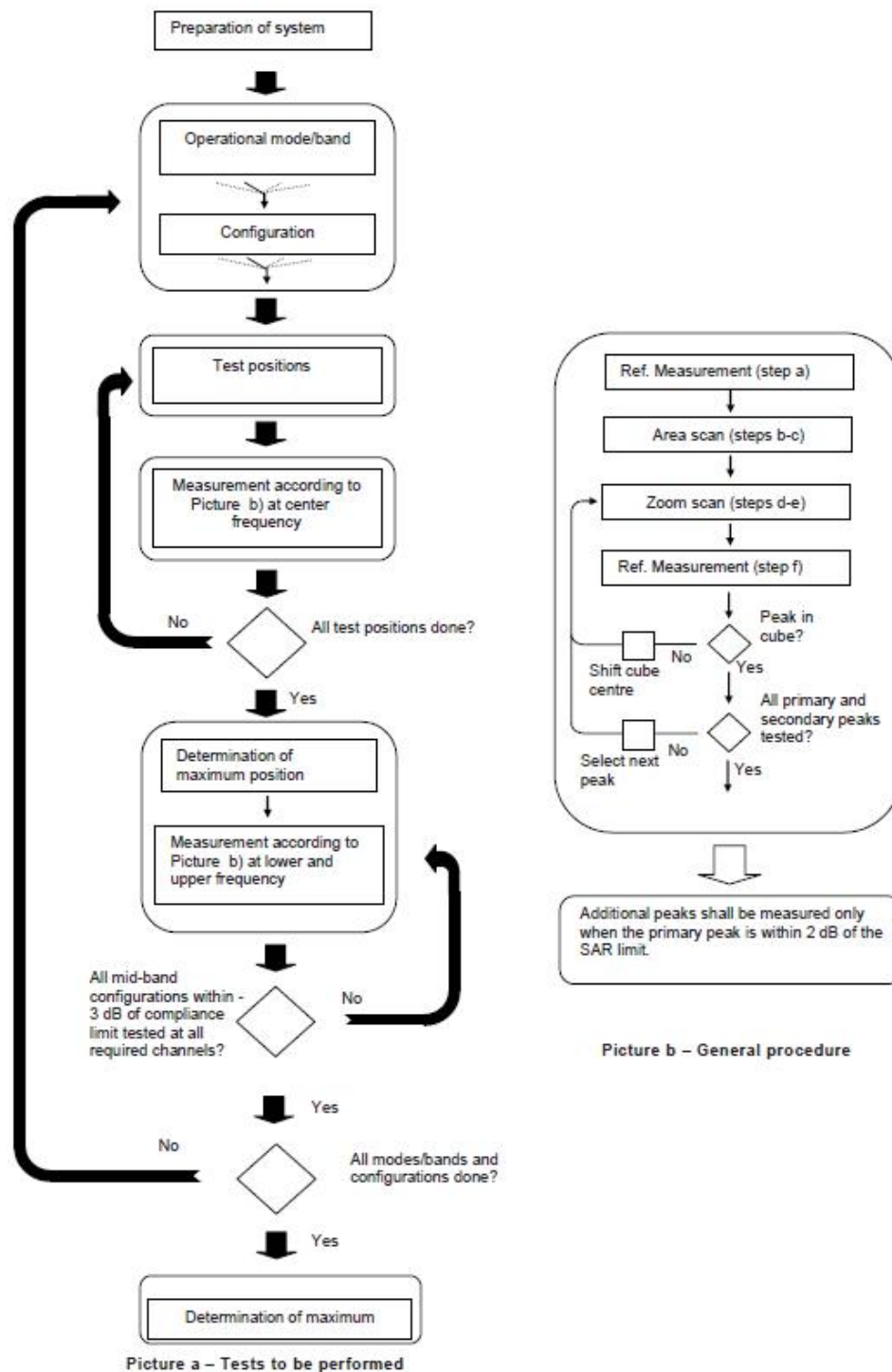
Zoom Scans are used to assess the peak spatial SAR values within a cubic averaging volume containing 1 g and 10g of simulated tissue. The Zoom Scan measures points (refer to table below) within a cube whose base faces are centered on the maxima found in a preceding area scan job within the same procedure.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

Zoom Scan Parameters extracted from KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz

|                                                                                                                                                                                                                                                                                                                                               |                                           |                                                                                             |                                                                                     |                                                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Maximum zoom scan spatial resolution: $\Delta x_{\text{Zoom}}, \Delta y_{\text{Zoom}}$                                                                                                                                                                                                                                                        |                                           |                                                                                             | $\leq 2 \text{ GHz}: \leq 8 \text{ mm}$<br>$2 - 3 \text{ GHz}: \leq 5 \text{ mm}^*$ | $3 - 4 \text{ GHz}: \leq 5 \text{ mm}^*$<br>$4 - 6 \text{ GHz}: \leq 4 \text{ mm}^*$                                          |
| Maximum zoom scan spatial resolution, normal to phantom surface                                                                                                                                                                                                                                                                               | uniform grid: $\Delta z_{\text{Zoom}}(n)$ |                                                                                             | $\leq 5 \text{ mm}$                                                                 | $3 - 4 \text{ GHz}: \leq 4 \text{ mm}$<br>$4 - 5 \text{ GHz}: \leq 3 \text{ mm}$<br>$5 - 6 \text{ GHz}: \leq 2 \text{ mm}$    |
|                                                                                                                                                                                                                                                                                                                                               | graded grid                               | $\Delta z_{\text{Zoom}}(1)$ : between 1 <sup>st</sup> two points closest to phantom surface | $\leq 4 \text{ mm}$                                                                 | $3 - 4 \text{ GHz}: \leq 3 \text{ mm}$<br>$4 - 5 \text{ GHz}: \leq 2.5 \text{ mm}$<br>$5 - 6 \text{ GHz}: \leq 2 \text{ mm}$  |
|                                                                                                                                                                                                                                                                                                                                               |                                           | $\Delta z_{\text{Zoom}}(n>1)$ : between subsequent points                                   | $\leq 1.5 \cdot \Delta z_{\text{Zoom}}(n-1)$                                        |                                                                                                                               |
| Minimum zoom scan volume                                                                                                                                                                                                                                                                                                                      | x, y, z                                   |                                                                                             | $\geq 30 \text{ mm}$                                                                | $3 - 4 \text{ GHz}: \geq 28 \text{ mm}$<br>$4 - 5 \text{ GHz}: \geq 25 \text{ mm}$<br>$5 - 6 \text{ GHz}: \geq 22 \text{ mm}$ |
| 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 <u>area scan based 1-g SAR estimation</u> procedures of KDB 447498 is $\leq 1.4 \text{ W/kg}$ , $\leq 8 \text{ mm}$ , $\leq 7 \text{ mm}$ and $\leq 5 \text{ mm}$ zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz. |                                           |                                                                                             |                                                                                     |                                                                                                                               |

### 9.4 Power drift measurement

The Power Drift Measurement measures the field at the same location as the most recent power reference measurement within the same procedure, and with the same settings. The Power Drift Measurement gives the field difference in dB from the reading conducted within the last Power Reference Measurement. This allows a user to monitor the power drift of the device under test within a batch process. The measurement procedure is the same as 10.1.



Picture 9.1 Block diagram of the tests to be performed

## **9.5 Area Scan Based 1-g SAR**

### **9.5-1 Requirement of KDB**

According to the KDB447498 D01 v06, when the implementation is based the specific polynomial fit algorithm as presented at the 29th Bioelectromagnetics Society meeting (2007) and the estimated 1-gSAR is  $\leq 1.2$  W/kg, a zoom scan measurement is not required provided it is also not needed for any other purpose; for example, if the peak SAR location required for simultaneous transmission SAR test exclusion can be determined accurately by the SAR system or manually to discriminate between distinctive peaks and scattered noisy SAR distributions from area scans.

There must not be any warning or alert messages due to various measurement concerns identified by the SAR system; for example, noise in measurements, peaks too close to scan boundary, peaks are too sharp, spatial resolution and uncertainty issues etc. The SAR system verification must also demonstrate that the area scan estimated 1-g SAR is within 3% of the zoom scan 1-g SAR (See Annex B). When all the SAR results for each exposure condition in a frequency band and wireless mode are based on estimated 1-g SAR, the 1-g SAR for the highest SAR configuration must be determined by a zoom scan.

### **9.5-2 Fast SAR Algorithms**

The approach is based on the area scan measurement applying a frequency dependent attenuation parameter. This attenuation parameter was empirically determined by analyzing a large number of phones. The MOTOROLA FAST SAR was developed and validated by the MOTOROLA Research Group in Ft. Lauderdale.

In the initial study, an approximation algorithm based on Linear fit was developed. The accuracy of the algorithm has been demonstrated across a broad frequency range (136-2450 MHz) and for both 1- and 10-g averaged SAR using a sample of 264 SAR measurements from 55 wireless handsets. For the sample size studied, the root-mean-squared errors of the algorithm are 1.2% and 5.8% for 1- and 10-g averaged SAR, respectively. The paper describing the algorithm in detail is expected to be published in August 2004 within the Special Issue of Transactions on MTT.

In the second step, the same research group optimized the fitting algorithm to an Polynomial fit whereby the frequency validity was extended to cover the range 30-6000MHz. Details of this study can be found in the BEMS 2007 Proceedings.

Both algorithms are implemented in DASY software.

## 10 Measurement Procedure for different technologies

### 10.1 GSM/GPRS Measurement Procedures for SAR

GSM / GPRS / EDGE modes is determined by the source-based time-averaged output power including tune-up tolerance. The 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. Other configurations of GSM / GPRS / EDGE are considered as secondary modes. The 3G SAR test reduction procedure is applied, 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, SAR measurement is not required for the secondary mode.

### 10.2 WCDMA Measurement Procedures for SAR

The following procedures are applicable to WCDMA handsets operating under 3GPP Release99, Release 5 and Release 6. The default test configuration is to measure SAR with an established radio link between the DUT and a communication test set using a 12.2kbps RMC (reference measurement channel) configured in Test Loop Mode 1. SAR is selectively confirmed for other physical channel configurations (DPCCH & DPDCH<sub>n</sub>), HSDPA and HSPA (HSUPA/HSDPA) modes according to output power, exposure conditions and device operating capabilities. Both uplink and downlink should be configured with the same RMC or AMR, when required. SAR for Release 5 HSDPA and Release 6 HSPA are measured using the applicable FRC (fixed reference channel) and E-DCH reference channel configurations. Maximum output power is verified according to applicable versions of 3GPP TS 34.121 and SAR must be measured according to these maximum output conditions. When Maximum Power Reduction (MPR) is not implemented according to Cubic Metric (CM) requirements for Release 6 HSPA, the following procedures do not apply.

#### For Release 5 HSDPA Data Devices:

| Sub-test | $\beta_c$ | $\beta_d$ | $\beta_d$ (SF) | $\beta_c / \beta_d$ | $\beta_{hs}$ | CM/dB |
|----------|-----------|-----------|----------------|---------------------|--------------|-------|
| 1        | 2/15      | 15/15     | 64             | 2/15                | 4/15         | 0.0   |
| 2        | 12/15     | 15/15     | 64             | 12/15               | 24/25        | 1.0   |
| 3        | 15/15     | 8/15      | 64             | 15/8                | 30/15        | 1.5   |
| 4        | 15/15     | 4/15      | 64             | 15/4                | 30/15        | 1.5   |

#### For Release 6 HSPA Data Devices

| Sub-test | $\beta_c$ | $\beta_d$ | $\beta_d$ (SF) | $\beta_c / \beta_d$ | $\beta_{hs}$ | $\beta_e$ | $\beta_{ed}$        | $\beta_{ed}$ (SF) | $\beta_{ed}$ (codes) | CM (dB) | MPR (dB) | AG Index | E-TFCI |
|----------|-----------|-----------|----------------|---------------------|--------------|-----------|---------------------|-------------------|----------------------|---------|----------|----------|--------|
| 1        | 11/15     | 15/15     | 64             | 11/15               | 22/15        | 209/225   | 1039/225            | 4                 | 1                    | 1.5     | 1.5      | 20       | 75     |
| 2        | 6/15      | 15/15     | 64             | 6/15                | 12/15        | 12/15     | 12/15               | 4                 | 1                    | 1.5     | 1.5      | 12       | 67     |
| 3        | 15/15     | 9/15      | 64             | 15/9                | 30/15        | 30/15     | $\beta_{ed1:47/15}$ | 4                 | 2                    | 1.5     | 1.5      | 15       | 92     |

|   |       |       |    |       |       |       |                         |   |   |     |     |    |    |
|---|-------|-------|----|-------|-------|-------|-------------------------|---|---|-----|-----|----|----|
|   |       |       |    |       |       |       | $\beta_{ed2:47/}$<br>15 |   |   |     |     |    |    |
| 4 | 2/15  | 15/15 | 64 | 2/15  | 4/15  | 4/15  | 56/75                   | 4 | 1 | 1.5 | 1.5 | 17 | 71 |
| 5 | 15/15 | 15/15 | 64 | 15/15 | 24/15 | 30/15 | 134/15                  | 4 | 1 | 1.5 | 1.5 | 21 | 81 |

## Rel.7 Release 7 HSPA+ Data Devices

**Table C.11.1.4:  $\beta$  values for transmitter characteristics tests with HS-DPCCH and E-DCH with 16QAM**

| Sub-test                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | $\beta_c$<br>(Note 3) | $\beta_d$ | $\beta_{hs}$<br>(Note 1) | $\beta_{ec}$ | $\beta_{ed}$<br>(2xSF2)<br>(Note 4)            | $\beta_{ed}$<br>(2xSF4)<br>(Note 4)            | CM<br>(dB)<br>(Note 2) | MPR<br>(dB)<br>(Note 2) | AG<br>Index<br>(Note 4) | E-TFCI<br>(Note 5) | E-TFCI<br>(boost) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------|--------------------------|--------------|------------------------------------------------|------------------------------------------------|------------------------|-------------------------|-------------------------|--------------------|-------------------|
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1                     | 0         | 30/15                    | 30/15        | $\beta_{ed1}$ : 30/15<br>$\beta_{ed2}$ : 30/15 | $\beta_{ed3}$ : 24/15<br>$\beta_{ed4}$ : 24/15 | 3.5                    | 2.5                     | 14                      | 105                | 105               |
| <p>Note 1: <math>\Delta_{ACK}</math>, <math>\Delta_{NACK}</math> and <math>\Delta_{CQI} = 30/15</math> with <math>\beta_{hs} = 30/15 * \beta_c</math>.</p> <p>Note 2: CM = 3.5 and the MPR is based on the relative CM difference, MPR = MAX(CM-1,0).</p> <p>Note 3: DPDCH is not configured, therefore the <math>\beta_c</math> is set to 1 and <math>\beta_d = 0</math> by default.</p> <p>Note 4: <math>\beta_{ed}</math> can not be set directly; it is set by Absolute Grant Value.</p> <p>Note 5: All the sub-tests require the UE to transmit 2SF2+2SF4 16QAM EDCH and they apply for UE using E-DPDCH category 7. E-DCH TTI is set to 2ms TTI and E-DCH table index = 2. To support these E-DCH configurations DPDCH is not allocated. The UE is signalled to use the extrapolation algorithm.</p> |                       |           |                          |              |                                                |                                                |                        |                         |                         |                    |                   |

## Rel.8 DC-HSDPA (Cat 24)

SAR test exclusion for Rel.8 DC-HSDPA must satisfy the SAR test exclusion requirements of Rel.5 HSDPA. SAR test exclusion for DC-HSDPA devices is determined by power measurements according to the H-Set 12, Fixed Reference Channel (FRC) configuration in Table C.8.1.12 of 3GPP TS 34.121-1. A primary and a secondary serving HS-DSCH Cell are required to perform the power measurement and for the results to qualify for SAR test exclusion.

**Table C.8.1.12: Fixed Reference Channel H-Set 12**

| Parameter                                                                                                                                                                                                                                                                                                     | Unit      | Value |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------|
| Nominal Avg. Inf. Bit Rate                                                                                                                                                                                                                                                                                    | kbps      | 60    |
| Inter-TTI Distance                                                                                                                                                                                                                                                                                            | TTI's     | 1     |
| Number of HARQ Processes                                                                                                                                                                                                                                                                                      | Processes | 6     |
| Information Bit Payload ( $N_{INF}$ )                                                                                                                                                                                                                                                                         | Bits      | 120   |
| Number Code Blocks                                                                                                                                                                                                                                                                                            | Blocks    | 1     |
| Binary Channel Bits Per TTI                                                                                                                                                                                                                                                                                   | Bits      | 960   |
| Total Available SML's in UE                                                                                                                                                                                                                                                                                   | SML's     | 19200 |
| Number of SML's per HARQ Proc.                                                                                                                                                                                                                                                                                | SML's     | 3200  |
| Coding Rate                                                                                                                                                                                                                                                                                                   |           | 0.15  |
| Number of Physical Channel Codes                                                                                                                                                                                                                                                                              | Codes     | 1     |
| Modulation                                                                                                                                                                                                                                                                                                    |           | QPSK  |
| <p>Note 1: The RMC is intended to be used for DC-HSDPA mode and both cells shall transmit with identical parameters as listed in the table.</p> <p>Note 2: Maximum number of transmission is limited to 1, i.e., retransmission is not allowed. The redundancy and constellation version 0 shall be used.</p> |           |       |

### 10.3 LTE Measurement Procedures for SAR

SAR tests for LTE are performed with a base station simulator, Rohde & Schwarz CMW500 or Anritsu MT8821C Closed loop power control was used so the UE transmits with maximum output power during SAR testing.

It is performed for conducted power and SAR based on the KDB941225 D05.

SAR is evaluated separately according to the following procedures for the different test positions in each exposure condition – head, body, body-worn accessories and other use conditions. The procedures in the following subsections are applied separately to test each LTE frequency band.

#### 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 among 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.

### TDD test:

TDD testing is performed using guidance from FCC KDB 941225 D05 v02r05 and the SAR test guidance provided in April 2013 TCB works hop notes. TDD is tested at the highest duty factor using UL-DL configuration 0 with special subframe configuration 6 and applying the FDD LTE procedures in KDB 941225 D05 v02r05. SAR testing is performed using the extended cyclic prefix listed in 3GPP TS 36.211.

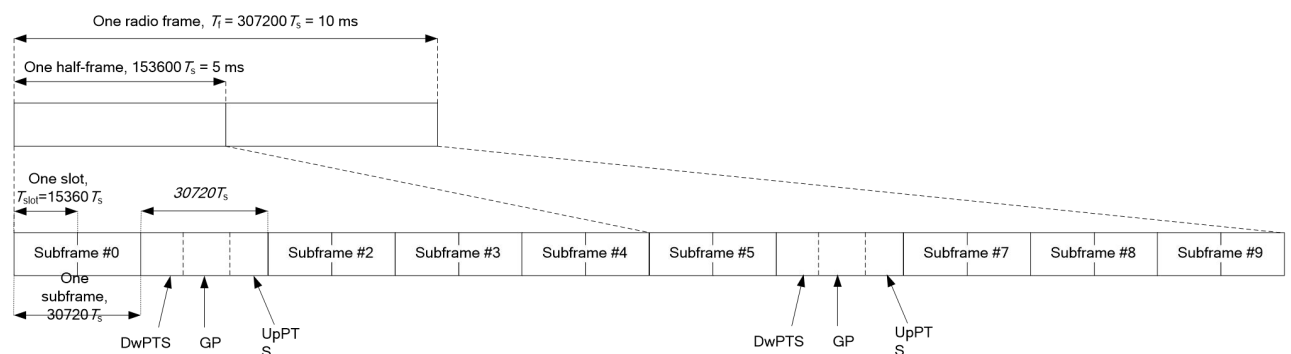


Figure 10.2: Frame structure type 2 (for 5 ms switch-point periodicity)

**Table 10.1: 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 10.2: 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 |

Duty factor is calculated by:

$$\begin{aligned}
 \text{Duty factor} &= \text{uplink frame} \cdot 6 + \text{UpPTS} \cdot 2 / \text{one frame length} \\
 &= (30720 \cdot T_s \cdot 6 + 5120 \cdot T_s \cdot 2) / 307200 \cdot T_s \\
 &= 0.633
 \end{aligned}$$

According to the KDB 447498 D01, SAR should be evaluated at more than 3 frequencies for devices supporting transmit bands wider than 100MHz. Oct.2014 FCC-TCB conference notes (Dec. 2014 rev.) specifies the 5 test channels to use for 3GPP band 38/41 SAR evaluation.

## 10.4 Bluetooth & Wi-Fi Measurement Procedures for SAR

Normal network operating configurations are not suitable for measuring the SAR of 802.11 transmitters in general. Unpredictable fluctuations in network traffic and antenna diversity conditions can introduce undesirable variations in SAR results. The SAR for these devices should be measured using chipset based test mode software to ensure that the results are consistent and reliable.

Chipset based test mode software is hardware dependent and generally varies among manufacturers. The device operating parameters established in a test mode for SAR measurements must be identical to those programmed in production units, including output power levels, amplifier gain settings and other RF performance tuning parameters. The test frequencies should correspond to actual channel frequencies defined for domestic use. SAR for devices with switched diversity should be measured with only one antenna transmitting at a time during each SAR measurement, according to a fixed modulation and data rate. The same data pattern should be used for all measurements.

## 10.5 SAR Measurement for ENDC

1. Test LTE SAR with single uplink at maximum power following LTE SAR test procedure.
  2. Test conducted power of 5G NR sub-carrier under EN-DC at maximum power ( FDD and TDD)[1] and change the different parameters to find the worst-case configuration, see detail procedure as attached.
- [1] For TDD band (n41), PC2 mode is only tested, because the duty cycle of both PC2 and PC3 are the same and PC2 has higher power than PC3.
3. Test SAR in worst case configuration for 5G NR in single uplink (test mode).
  4. If the single uplink 1g SAR values for 5G NR and LTE are both less than 0.8W/kg and the algebraic summation of the 1g SAR values are less than 1.45W/kg, no additional measurements need to be performed.

## 11 Conducted Output Power

| DSI   | Receiver mode                | Sensor | Hotspot | Transmitting                | Position                                                           |
|-------|------------------------------|--------|---------|-----------------------------|--------------------------------------------------------------------|
|       |                              |        |         | conditions                  |                                                                    |
| DSI2  | ON(head scenario)            | /      | OFF     | WWAN Use Only               | Head                                                               |
| DSI3  | ON(head scenario)            | /      | OFF     | WWAN +WLAN                  | Head                                                               |
| DSI4  | OFF<br>(Body/other scenario) | OFF    | OFF     | WWAN Use Only               | Back/Right for antenna11 limb SAR of sensor Trigger distance-1     |
|       |                              |        |         |                             | Front/Back/Top for antenna11 limb SAR of sensor Trigger distance-1 |
|       |                              |        |         |                             | ALL position for all antenna of Body 15mm                          |
|       |                              |        |         |                             | Front/Left/Top/Bottom for antenna11 limb SAR 0mm                   |
| DSI5  | OFF<br>(Body/other scenario) | ON     | OFF     | WWAN Use Only               | Right/Left/Bottom for antenna13 limb SAR 0mm                       |
|       |                              |        |         |                             | ALL position for antenna31/41 limb SAR 0mm                         |
|       |                              |        |         |                             | Front/Back/Top for antenna13 limb SAR 0mm                          |
|       |                              |        |         |                             | Back/Right for antenna11 limb SAR 0mm                              |
| DSI8  | OFF<br>(Body/other scenario) | ON     | OFF     | WWAN +WLAN                  | 13#: Front/Back/Top for antenna13 limb SAR 0mm                     |
|       | OFF<br>(Body/other scenario) | ON     | OFF     | WWAN +WLAN                  | Back/Right for antenna11 limb SAR 0mm                              |
|       | OFF<br>(Body/other scenario) | ON     | OFF     | WWAN +WLAN                  | Front/Left/Top/Bottom for antenna11 limb SAR 0mm                   |
| DSI9  | OFF<br>(Body/other scenario) | ON     | OFF     | WWAN +WLAN                  | Right/Left/Bottom for antenna13 limb SAR 0mm                       |
|       |                              |        |         |                             | ALL position for antenna31/41 limb SAR 0mm                         |
|       |                              |        |         |                             | Back/Right for antenna11 limb SAR 0mm                              |
| DSI10 | OFF<br>(Body/other scenario) | ON     | OFF     | WWAN +WLAN                  | Front/Back/Top for antenna13 limb SAR 0mm                          |
|       | OFF<br>(Body/other scenario) | ON     | ON      | WWAN Use Only<br>WWAN +WLAN | ALL position for FCC Hotspot mode                                  |

## 11.1 GSM Measurement result

### GSM850(ANT13 DSI2/3)

| GSM 850<br>Speech (GMSK) | Measured timeslot-averaged<br>output power (dBm) |              |              | Tune up      | calculation  | Source-based time-averaged<br>output power (dBm) |              |              |
|--------------------------|--------------------------------------------------|--------------|--------------|--------------|--------------|--------------------------------------------------|--------------|--------------|
|                          | 251                                              | 190          | 128          |              |              | 251                                              | 190          | 128          |
| 1Txslot                  | 25.05                                            | 25.12        | 24.93        | 26.20        | -9.03        | 16.02                                            | 16.09        | 15.90        |
| GSM 850<br>GPRS (GMSK)   | Measured timeslot-averaged<br>output power (dBm) |              |              | Tune up      | calculation  | Source-based time-averaged<br>output power (dBm) |              |              |
|                          | 251                                              | 190          | 128          |              |              | 251                                              | 190          | 128          |
| 1Txslot                  | 25.04                                            | 25.10        | 24.91        | 26.20        | -9.03        | 16.01                                            | 16.07        | 15.88        |
| <b>2Txslots</b>          | <b>23.82</b>                                     | <b>23.85</b> | <b>23.67</b> | <b>24.50</b> | <b>-6.02</b> | <b>17.80</b>                                     | <b>17.83</b> | <b>17.65</b> |
| 3Txslots                 | 21.81                                            | 21.90        | 21.71        | 22.50        | -4.26        | 17.55                                            | 17.64        | 17.45        |
| 4Txslots                 | 19.81                                            | 19.88        | 19.69        | 20.70        | -3.01        | 16.80                                            | 16.87        | 16.68        |
| GSM 850<br>EGPRS (GMSK)  | Measured timeslot-averaged<br>output power (dBm) |              |              |              |              | Source-based time-averaged<br>output power (dBm) |              |              |
|                          | 251                                              | 190          | 128          |              |              | 251                                              | 190          | 128          |
| 1Txslot                  | 25.00                                            | 25.08        | 24.88        | 26.20        | -9.03        | 15.97                                            | 16.05        | 15.85        |
| <b>2Txslots</b>          | <b>23.78</b>                                     | <b>23.83</b> | <b>23.65</b> | <b>24.50</b> | <b>-6.02</b> | <b>17.76</b>                                     | <b>17.81</b> | <b>17.63</b> |
| 3Txslots                 | 21.77                                            | 21.88        | 21.68        | 22.50        | -4.26        | 17.51                                            | 17.62        | 17.42        |
| 4Txslots                 | 19.78                                            | 19.87        | 19.67        | 20.70        | -3.01        | 16.77                                            | 16.86        | 16.66        |
| GSM 850<br>EGPRS(8PSK)   | Measured timeslot-averaged<br>output power (dBm) |              |              |              |              | Source-based time-averaged<br>output power (dBm) |              |              |
|                          | 251                                              | 190          | 128          |              |              | 251                                              | 190          | 128          |
| 1Txslot                  | 24.49                                            | 24.34        | 24.40        | 25.70        | -9.03        | 15.46                                            | 15.31        | 15.37        |
| 2Txslots                 | 23.11                                            | 23.04        | 22.97        | 24.50        | -6.02        | 17.09                                            | 17.02        | 16.95        |
| 3Txslots                 | 20.97                                            | 20.78        | 20.78        | 22.50        | -4.26        | 16.71                                            | 16.52        | 16.52        |
| 4Txslots                 | 19.08                                            | 18.95        | 19.02        | 20.50        | -3.01        | 16.07                                            | 15.94        | 16.01        |

**GSM850(ANT13 DSI4/8/9/10)**

| GSM 850<br>Speech (GMSK) | Measured timeslot-averaged<br>output power (dBm) |              |              | Tune up      | calculation  | Source-based time-averaged<br>output power (dBm) |              |              |
|--------------------------|--------------------------------------------------|--------------|--------------|--------------|--------------|--------------------------------------------------|--------------|--------------|
|                          | 251                                              | 190          | 128          |              |              | 251                                              | 190          | 128          |
| 1Txslot                  | 32.55                                            | 32.61        | 32.41        | 33.70        | -9.03        | 23.52                                            | 23.58        | 23.38        |
| GSM 850<br>GPRS (GMSK)   | Measured timeslot-averaged<br>output power (dBm) |              |              | Tune up      | calculation  | Source-based time-averaged<br>output power (dBm) |              |              |
|                          | 251                                              | 190          | 128          |              |              | 251                                              | 190          | 128          |
| 1Txslot                  | 32.57                                            | 32.58        | 32.36        | 33.70        | -9.03        | 23.54                                            | 23.55        | 23.33        |
| <b>2Txslots</b>          | <b>31.25</b>                                     | <b>31.25</b> | <b>31.03</b> | <b>32.00</b> | <b>-6.02</b> | <b>25.23</b>                                     | <b>25.23</b> | <b>25.01</b> |
| 3Txslots                 | 29.28                                            | 29.31        | 29.09        | 30.00        | -4.26        | 25.02                                            | 25.05        | 24.83        |
| 4Txslots                 | 27.31                                            | 27.35        | 27.14        | 28.20        | -3.01        | 24.30                                            | 24.34        | 24.13        |
| GSM 850<br>EGPRS (GMSK)  | Measured timeslot-averaged<br>output power (dBm) |              |              |              |              | Source-based time-averaged<br>output power (dBm) |              |              |
|                          | 251                                              | 190          | 128          |              |              | 251                                              | 190          | 128          |
| 1Txslot                  | 32.54                                            | 32.56        | 32.36        | 33.70        | -9.03        | 23.51                                            | 23.53        | 23.33        |
| <b>2Txslots</b>          | <b>31.24</b>                                     | <b>31.26</b> | <b>31.03</b> | <b>32.00</b> | <b>-6.02</b> | <b>25.22</b>                                     | <b>25.24</b> | <b>25.01</b> |
| 3Txslots                 | 29.26                                            | 29.34        | 29.09        | 30.00        | -4.26        | 25.00                                            | 25.08        | 24.83        |
| 4Txslots                 | 27.30                                            | 27.37        | 27.14        | 28.20        | -3.01        | 24.29                                            | 24.36        | 24.13        |
| GSM 850<br>EGPRS(8PSK)   | Measured timeslot-averaged<br>output power (dBm) |              |              |              |              | Source-based time-averaged<br>output power (dBm) |              |              |
|                          | 251                                              | 190          | 128          |              |              | 251                                              | 190          | 128          |
| 1Txslot                  | 26.74                                            | 26.95        | 26.69        | 28.00        | -9.03        | 17.71                                            | 17.92        | 17.66        |
| 2Txslots                 | 25.05                                            | 24.60        | 24.48        | 26.00        | -6.02        | 19.03                                            | 18.58        | 18.46        |
| 3Txslots                 | 22.62                                            | 22.40        | 22.90        | 24.00        | -4.26        | 18.36                                            | 18.14        | 18.64        |
| 4Txslots                 | 20.80                                            | 21.77        | 20.64        | 22.50        | -3.01        | 17.79                                            | 18.76        | 17.63        |

**GSM850(ANT41 DSI2/4/8/9/10)**

| GSM 850<br>Speech (GMSK) | Measured timeslot-averaged<br>output power (dBm) |              |              | Tune up      | calculation  | Source-based time-averaged<br>output power (dBm) |              |              |
|--------------------------|--------------------------------------------------|--------------|--------------|--------------|--------------|--------------------------------------------------|--------------|--------------|
|                          | 251                                              | 190          | 128          |              |              | 251                                              | 190          | 128          |
| 1Txslot                  | 32.34                                            | 32.51        | 32.44        | 33.70        | -9.03        | 23.31                                            | 23.48        | 23.41        |
| GSM 850<br>GPRS (GMSK)   | Measured timeslot-averaged<br>output power (dBm) |              |              | Tune up      | calculation  | Source-based time-averaged<br>output power (dBm) |              |              |
|                          | 251                                              | 190          | 128          |              |              | 251                                              | 190          | 128          |
| 1Txslot                  | 32.33                                            | 32.47        | 32.39        | 33.70        | -9.03        | 23.30                                            | 23.44        | 23.36        |
| <b>2Txslots</b>          | <b>31.00</b>                                     | <b>31.15</b> | <b>31.10</b> | <b>32.00</b> | <b>-6.02</b> | <b>24.98</b>                                     | <b>25.13</b> | <b>25.08</b> |
| 3Txslots                 | 29.01                                            | 29.21        | 29.18        | 30.00        | -4.26        | 24.75                                            | 24.95        | 24.92        |
| 4Txslots                 | 27.05                                            | 27.25        | 27.24        | 28.20        | -3.01        | 24.04                                            | 24.24        | 24.23        |
| GSM 850<br>EGPRS (GMSK)  | Measured timeslot-averaged<br>output power (dBm) |              |              |              |              | Source-based time-averaged<br>output power (dBm) |              |              |
|                          | 251                                              | 190          | 128          |              |              | 251                                              | 190          | 128          |
| 1Txslot                  | 32.31                                            | 32.46        | 32.38        | 33.70        | -9.03        | 23.28                                            | 23.43        | 23.35        |
| <b>2Txslots</b>          | <b>30.98</b>                                     | <b>31.14</b> | <b>31.09</b> | <b>32.00</b> | <b>-6.02</b> | <b>24.96</b>                                     | <b>25.12</b> | <b>25.07</b> |
| 3Txslots                 | 28.99                                            | 29.19        | 29.16        | 30.00        | -4.26        | 24.73                                            | 24.93        | 24.90        |
| 4Txslots                 | 27.03                                            | 27.24        | 27.22        | 28.20        | -3.01        | 24.02                                            | 24.23        | 24.21        |
| GSM 850<br>EGPRS(8PSK)   | Measured timeslot-averaged<br>output power (dBm) |              |              |              |              | Source-based time-averaged<br>output power (dBm) |              |              |
|                          | 251                                              | 190          | 128          |              |              | 251                                              | 190          | 128          |
| 1Txslot                  | 26.84                                            | 26.81        | 26.86        | 28.00        | -9.03        | 17.81                                            | 17.78        | 17.83        |
| 2Txslots                 | 24.64                                            | 24.56        | 24.67        | 26.00        | -6.02        | 18.62                                            | 18.54        | 18.65        |
| 3Txslots                 | 22.43                                            | 22.66        | 22.55        | 24.00        | -4.26        | 18.17                                            | 18.40        | 18.29        |
| 4Txslots                 | 20.67                                            | 20.70        | 20.82        | 22.00        | -3.01        | 17.66                                            | 17.69        | 17.81        |

**GSM1900(ANT13 DSI2/3)**

| GSM 1900<br>Speech (GMSK) | Measured timeslot-averaged<br>output power (dBm) |              |              | Tune up      | calculation  | Source-based time-averaged<br>output power (dBm) |              |              |
|---------------------------|--------------------------------------------------|--------------|--------------|--------------|--------------|--------------------------------------------------|--------------|--------------|
|                           | 810                                              | 661          | 512          |              |              | 810                                              | 661          | 512          |
| 1Txslot                   | 22.86                                            | 22.91        | 22.97        | 24.00        | -9.03        | 13.83                                            | 13.88        | 13.94        |
| GSM 1900<br>GPRS (GMSK)   | Measured timeslot-averaged<br>output power (dBm) |              |              | Tune up      | calculation  | Source-based time-averaged<br>output power (dBm) |              |              |
|                           | 810                                              | 661          | 512          |              |              | 810                                              | 661          | 512          |
| 1Txslot                   | 22.85                                            | 22.91        | 22.95        | 24.00        | -9.03        | 13.82                                            | 13.88        | 13.92        |
| <b>2Txslots</b>           | <b>21.09</b>                                     | <b>21.15</b> | <b>21.20</b> | <b>22.00</b> | <b>-6.02</b> | <b>15.07</b>                                     | <b>15.13</b> | <b>15.18</b> |
| 3Txslots                  | 19.11                                            | 19.16        | 19.19        | 20.00        | -4.26        | 14.85                                            | 14.90        | 14.93        |
| 4Txslots                  | 17.57                                            | 17.62        | 17.66        | 18.50        | -3.01        | 14.56                                            | 14.61        | 14.65        |
| GSM 1900<br>EGPRS (GMSK)  | Measured timeslot-averaged<br>output power (dBm) |              |              |              |              | Source-based time-averaged<br>output power (dBm) |              |              |
|                           | 810                                              | 661          | 512          |              |              | 810                                              | 661          | 512          |
| 1Txslot                   | 22.82                                            | 22.87        | 22.93        | 24.00        | -9.03        | 13.79                                            | 13.84        | 13.90        |
| <b>2Txslots</b>           | <b>21.07</b>                                     | <b>21.12</b> | <b>21.19</b> | <b>22.00</b> | <b>-6.02</b> | <b>15.05</b>                                     | <b>15.10</b> | <b>15.17</b> |
| 3Txslots                  | 19.08                                            | 19.13        | 19.17        | 20.00        | -4.26        | 14.82                                            | 14.87        | 14.91        |
| 4Txslots                  | 17.54                                            | 17.59        | 17.64        | 18.50        | -3.01        | 14.53                                            | 14.58        | 14.63        |
| GSM 1900<br>EGPRS(8PSK)   | Measured timeslot-averaged<br>output power (dBm) |              |              |              |              | Source-based time-averaged<br>output power (dBm) |              |              |
|                           | 810                                              | 661          | 512          |              |              | 810                                              | 661          | 512          |
| 1Txslot                   | 22.91                                            | 22.92        | 23.02        | 23.80        | -9.03        | 13.88                                            | 13.89        | 13.99        |
| 2Txslots                  | 20.98                                            | 21.00        | 21.12        | 22.00        | -6.02        | 14.96                                            | 14.98        | 15.10        |
| 3Txslots                  | 18.68                                            | 18.73        | 18.87        | 20.00        | -4.26        | 14.42                                            | 14.47        | 14.61        |
| 4Txslots                  | 16.93                                            | 16.99        | 17.12        | 18.50        | -3.01        | 13.92                                            | 13.98        | 14.11        |

**GSM1900(ANT13 DSI4)**

| GSM 1900<br>Speech (GMSK) | Measured timeslot-averaged<br>output power (dBm) |              |              | Tune up      | calculation  | Source-based time-averaged<br>output power (dBm) |              |              |
|---------------------------|--------------------------------------------------|--------------|--------------|--------------|--------------|--------------------------------------------------|--------------|--------------|
|                           | 810                                              | 661          | 512          |              |              | 810                                              | 661          | 512          |
| 1Txslot                   | 29.77                                            | 29.81        | 29.94        | 31.00        | -9.03        | 20.74                                            | 20.78        | 20.91        |
| GSM 1900<br>GPRS (GMSK)   | Measured timeslot-averaged<br>output power (dBm) |              |              | Tune up      | calculation  | Source-based time-averaged<br>output power (dBm) |              |              |
|                           | 810                                              | 661          | 512          |              |              | 810                                              | 661          | 512          |
| 1Txslot                   | 29.76                                            | 29.83        | 29.93        | 31.00        | -9.03        | 20.73                                            | 20.80        | 20.90        |
| <b>2Txslots</b>           | <b>28.02</b>                                     | <b>28.07</b> | <b>28.16</b> | <b>29.00</b> | <b>-6.02</b> | <b>22.00</b>                                     | <b>22.05</b> | <b>22.14</b> |
| 3Txslots                  | 26.01                                            | 26.09        | 26.15        | 27.00        | -4.26        | 21.75                                            | 21.83        | 21.89        |
| 4Txslots                  | 24.59                                            | 24.63        | 24.71        | 25.50        | -3.01        | 21.58                                            | 21.62        | 21.70        |
| GSM 1900<br>EGPRS (GMSK)  | Measured timeslot-averaged<br>output power (dBm) |              |              |              |              | Source-based time-averaged<br>output power (dBm) |              |              |
|                           | 810                                              | 661          | 512          |              |              | 810                                              | 661          | 512          |
| 1Txslot                   | 29.72                                            | 29.81        | 29.98        | 31.00        | -9.03        | 20.69                                            | 20.78        | 20.95        |
| <b>2Txslots</b>           | <b>27.99</b>                                     | <b>28.06</b> | <b>28.17</b> | <b>29.00</b> | <b>-6.02</b> | <b>21.97</b>                                     | <b>22.04</b> | <b>22.15</b> |
| 3Txslots                  | 25.98                                            | 26.09        | 26.19        | 27.00        | -4.26        | 21.72                                            | 21.83        | 21.93        |
| 4Txslots                  | 24.59                                            | 24.63        | 24.70        | 25.50        | -3.01        | 21.58                                            | 21.62        | 21.69        |
| GSM 1900<br>EGPRS(8PSK)   | Measured timeslot-averaged<br>output power (dBm) |              |              |              |              | Source-based time-averaged<br>output power (dBm) |              |              |
|                           | 810                                              | 661          | 512          |              |              | 810                                              | 661          | 512          |
| 1Txslot                   | 26.11                                            | 26.22        | 26.27        | 27.00        | -9.03        | 17.08                                            | 17.19        | 17.24        |
| 2Txslots                  | 24.36                                            | 24.22        | 24.32        | 25.00        | -6.02        | 18.34                                            | 18.20        | 18.30        |
| 3Txslots                  | 21.90                                            | 21.89        | 22.21        | 23.00        | -4.26        | 17.64                                            | 17.63        | 17.95        |
| 4Txslots                  | 20.06                                            | 20.52        | 20.32        | 21.50        | -3.01        | 17.05                                            | 17.51        | 17.31        |

**GSM1900(ANT13 DSI8/9/10)**

| GSM 1900<br>Speech (GMSK) | Measured timeslot-averaged<br>output power (dBm) |              |              | Tune up      | calculation  | Source-based time-averaged<br>output power (dBm) |              |              |
|---------------------------|--------------------------------------------------|--------------|--------------|--------------|--------------|--------------------------------------------------|--------------|--------------|
|                           | 810                                              | 661          | 512          |              |              | 810                                              | 661          | 512          |
| 1Txslot                   | 26.36                                            | 26.42        | 26.49        | 27.50        | -9.03        | 17.33                                            | 17.39        | 17.46        |
| GSM 1900<br>GPRS (GMSK)   | Measured timeslot-averaged<br>output power (dBm) |              |              | Tune up      | calculation  | Source-based time-averaged<br>output power (dBm) |              |              |
|                           | 810                                              | 661          | 512          |              |              | 810                                              | 661          | 512          |
| 1Txslot                   | 26.35                                            | 26.40        | 26.47        | 27.50        | -9.03        | 17.32                                            | 17.37        | 17.44        |
| <b>2Txslots</b>           | <b>24.42</b>                                     | <b>24.66</b> | <b>24.70</b> | <b>25.50</b> | <b>-6.02</b> | <b>18.40</b>                                     | <b>18.64</b> | <b>18.68</b> |
| 3Txslots                  | 22.47                                            | 22.64        | 22.70        | 23.50        | -4.26        | 18.21                                            | 18.38        | 18.44        |
| 4Txslots                  | 21.09                                            | 21.14        | 21.21        | 22.00        | -3.01        | 18.08                                            | 18.13        | 18.20        |
| GSM 1900<br>EGPRS (GMSK)  | Measured timeslot-averaged<br>output power (dBm) |              |              |              |              | Source-based time-averaged<br>output power (dBm) |              |              |
|                           | 810                                              | 661          | 512          |              |              | 810                                              | 661          | 512          |
| 1Txslot                   | 26.35                                            | 26.41        | 26.47        | 27.50        | -9.03        | 17.32                                            | 17.38        | 17.44        |
| <b>2Txslots</b>           | <b>24.60</b>                                     | <b>24.66</b> | <b>24.70</b> | <b>25.50</b> | <b>-6.02</b> | <b>18.58</b>                                     | <b>18.64</b> | <b>18.68</b> |
| 3Txslots                  | 22.59                                            | 22.65        | 22.70        | 23.50        | -4.26        | 18.33                                            | 18.39        | 18.44        |
| 4Txslots                  | 21.09                                            | 21.14        | 21.21        | 22.00        | -3.01        | 18.08                                            | 18.13        | 18.20        |
| GSM 1900<br>EGPRS(8PSK)   | Measured timeslot-averaged<br>output power (dBm) |              |              |              |              | Source-based time-averaged<br>output power (dBm) |              |              |
|                           | 810                                              | 661          | 512          |              |              | 810                                              | 661          | 512          |
| 1Txslot                   | 26.08                                            | 26.06        | 26.22        | 27.00        | -9.03        | 17.05                                            | 17.03        | 17.19        |
| 2Txslots                  | 24.09                                            | 24.17        | 24.31        | 25.00        | -6.02        | 18.07                                            | 18.15        | 18.29        |
| 3Txslots                  | 21.82                                            | 21.86        | 22.01        | 23.00        | -4.26        | 17.56                                            | 17.60        | 17.75        |
| 4Txslots                  | 20.07                                            | 20.10        | 20.29        | 21.50        | -3.01        | 17.06                                            | 17.09        | 17.28        |

**GSM1900(ANT31 DSI2/3)**

| GSM 1900<br>Speech (GMSK) | Measured timeslot-averaged<br>output power (dBm) |              |              | Tune up      | calculation  | Source-based time-averaged<br>output power (dBm) |              |              |
|---------------------------|--------------------------------------------------|--------------|--------------|--------------|--------------|--------------------------------------------------|--------------|--------------|
|                           | 810                                              | 661          | 512          |              |              | 810                                              | 661          | 512          |
| 1Txslot                   | 29.71                                            | 29.82        | 30.04        | 31.00        | -9.03        | 20.68                                            | 20.79        | 21.01        |
| GSM 1900<br>GPRS (GMSK)   | Measured timeslot-averaged<br>output power (dBm) |              |              | Tune up      | calculation  | Source-based time-averaged<br>output power (dBm) |              |              |
|                           | 810                                              | 661          | 512          |              |              | 810                                              | 661          | 512          |
| 1Txslot                   | 29.72                                            | 29.81        | 30.02        | 31.00        | -9.03        | 20.69                                            | 20.78        | 20.99        |
| <b>2Txslots</b>           | <b>28.07</b>                                     | <b>28.19</b> | <b>28.27</b> | <b>29.50</b> | <b>-6.02</b> | <b>22.05</b>                                     | <b>22.17</b> | <b>22.25</b> |
| 3Txslots                  | 25.96                                            | 26.13        | 26.31        | 27.50        | -4.26        | 21.70                                            | 21.87        | 22.05        |
| 4Txslots                  | 24.46                                            | 24.66        | 24.83        | 25.80        | -3.01        | 21.45                                            | 21.65        | 21.82        |
| GSM 1900<br>EGPRS (GMSK)  | Measured timeslot-averaged<br>output power (dBm) |              |              |              |              | Source-based time-averaged<br>output power (dBm) |              |              |
|                           | 810                                              | 661          | 512          |              |              | 810                                              | 661          | 512          |
| 1Txslot                   | 29.71                                            | 29.88        | 30.00        | 31.00        | -9.03        | 20.68                                            | 20.85        | 20.97        |
| <b>2Txslots</b>           | <b>27.98</b>                                     | <b>28.21</b> | <b>28.24</b> | <b>29.50</b> | <b>-6.02</b> | <b>21.96</b>                                     | <b>22.19</b> | <b>22.22</b> |
| 3Txslots                  | 25.85                                            | 26.10        | 26.27        | 27.50        | -4.26        | 21.59                                            | 21.84        | 22.01        |
| 4Txslots                  | 24.45                                            | 24.61        | 24.79        | 25.80        | -3.01        | 21.44                                            | 21.60        | 21.78        |
| GSM 1900<br>EGPRS(8PSK)   | Measured timeslot-averaged<br>output power (dBm) |              |              |              |              | Source-based time-averaged<br>output power (dBm) |              |              |
|                           | 810                                              | 661          | 512          |              |              | 810                                              | 661          | 512          |
| 1Txslot                   | 25.98                                            | 26.06        | 26.30        | 27.00        | -9.03        | 16.95                                            | 17.03        | 17.27        |
| 2Txslots                  | 23.92                                            | 24.00        | 24.24        | 25.00        | -6.02        | 17.90                                            | 17.98        | 18.22        |
| 3Txslots                  | 21.65                                            | 21.74        | 22.09        | 23.00        | -4.26        | 17.39                                            | 17.48        | 17.83        |
| 4Txslots                  | 20.01                                            | 20.08        | 20.12        | 21.00        | -3.01        | 17.00                                            | 17.07        | 17.11        |

**GSM1900(ANT31 DSI4)**

| GSM 1900<br>Speech (GMSK) | Measured timeslot-averaged<br>output power (dBm) |              |              | Tune up      | calculation  | Source-based time-averaged<br>output power (dBm) |              |              |
|---------------------------|--------------------------------------------------|--------------|--------------|--------------|--------------|--------------------------------------------------|--------------|--------------|
|                           | 810                                              | 661          | 512          |              |              | 810                                              | 661          | 512          |
| 1Txslot                   | 28.60                                            | 28.73        | 29.02        | 30.00        | -9.03        | 19.57                                            | 19.70        | 19.99        |
| GSM 1900<br>GPRS (GMSK)   | Measured timeslot-averaged<br>output power (dBm) |              |              | Tune up      | calculation  | Source-based time-averaged<br>output power (dBm) |              |              |
|                           | 810                                              | 661          | 512          |              |              | 810                                              | 661          | 512          |
| 1Txslot                   | 28.89                                            | 28.91        | 29.03        | 30.00        | -9.03        | 19.86                                            | 19.88        | 20.00        |
| <b>2Txslots</b>           | <b>27.04</b>                                     | <b>27.14</b> | <b>27.40</b> | <b>28.50</b> | <b>-6.02</b> | <b>21.02</b>                                     | <b>21.12</b> | <b>21.38</b> |
| 3Txslots                  | 24.95                                            | 25.08        | 25.41        | 26.50        | -4.26        | 20.69                                            | 20.82        | 21.15        |
| 4Txslots                  | 23.39                                            | 23.55        | 23.87        | 24.80        | -3.01        | 20.38                                            | 20.54        | 20.86        |
| GSM 1900<br>EGPRS (GMSK)  | Measured timeslot-averaged<br>output power (dBm) |              |              |              |              | Source-based time-averaged<br>output power (dBm) |              |              |
|                           | 810                                              | 661          | 512          |              |              | 810                                              | 661          | 512          |
| 1Txslot                   | 28.94                                            | 28.98        | 29.05        | 30.00        | -9.03        | 19.91                                            | 19.95        | 20.02        |
| <b>2Txslots</b>           | <b>27.07</b>                                     | <b>27.20</b> | <b>27.43</b> | <b>28.50</b> | <b>-6.02</b> | <b>21.05</b>                                     | <b>21.18</b> | <b>21.41</b> |
| 3Txslots                  | 25.00                                            | 25.13        | 25.41        | 26.50        | -4.26        | 20.74                                            | 20.87        | 21.15        |
| 4Txslots                  | 23.44                                            | 23.58        | 23.87        | 24.80        | -3.01        | 20.43                                            | 20.57        | 20.86        |
| GSM 1900<br>EGPRS(8PSK)   | Measured timeslot-averaged<br>output power (dBm) |              |              |              |              | Source-based time-averaged<br>output power (dBm) |              |              |
|                           | 810                                              | 661          | 512          |              |              | 810                                              | 661          | 512          |
| 1Txslot                   | 25.87                                            | 25.96        | 26.27        | 27.00        | -9.03        | 16.84                                            | 16.93        | 17.24        |
| 2Txslots                  | 23.91                                            | 24.21        | 24.24        | 25.00        | -6.02        | 17.89                                            | 18.19        | 18.22        |
| 3Txslots                  | 21.64                                            | 21.73        | 21.91        | 23.00        | -4.26        | 17.38                                            | 17.47        | 17.65        |
| 4Txslots                  | 19.76                                            | 19.85        | 20.02        | 21.00        | -3.01        | 16.75                                            | 16.84        | 17.01        |

**GSM1900(ANT31 DSI8/9/10)**

| GSM 1900<br>Speech (GMSK) | Measured timeslot-averaged<br>output power (dBm) |              |              | Tune up      | calculation  | Source-based time-averaged<br>output power (dBm) |              |              |
|---------------------------|--------------------------------------------------|--------------|--------------|--------------|--------------|--------------------------------------------------|--------------|--------------|
|                           | 810                                              | 661          | 512          |              |              | 810                                              | 661          | 512          |
| 1Txslot                   | 27.06                                            | 27.21        | 27.52        | 28.50        | -9.03        | 18.03                                            | 18.18        | 18.49        |
| GSM 1900<br>GPRS (GMSK)   | Measured timeslot-averaged<br>output power (dBm) |              |              | Tune up      | calculation  | Source-based time-averaged<br>output power (dBm) |              |              |
|                           | 810                                              | 661          | 512          |              |              | 810                                              | 661          | 512          |
| 1Txslot                   | 27.31                                            | 27.34        | 27.55        | 28.50        | -9.03        | 18.28                                            | 18.31        | 18.52        |
| <b>2Txslots</b>           | <b>25.45</b>                                     | <b>25.51</b> | <b>25.80</b> | <b>27.00</b> | <b>-6.02</b> | <b>19.43</b>                                     | <b>19.49</b> | <b>19.78</b> |
| 3Txslots                  | 23.39                                            | 23.47        | 23.77        | 25.00        | -4.26        | 19.13                                            | 19.21        | 19.51        |
| 4Txslots                  | 21.83                                            | 21.91        | 22.27        | 23.00        | -3.01        | 18.82                                            | 18.90        | 19.26        |
| GSM 1900<br>EGPRS (GMSK)  | Measured timeslot-averaged<br>output power (dBm) |              |              |              |              | Source-based time-averaged<br>output power (dBm) |              |              |
|                           | 810                                              | 661          | 512          |              |              | 810                                              | 661          | 512          |
| 1Txslot                   | 27.28                                            | 27.33        | 27.54        | 28.50        | -9.03        | 18.25                                            | 18.30        | 18.51        |
| <b>2Txslots</b>           | <b>25.42</b>                                     | <b>25.50</b> | <b>25.78</b> | <b>27.00</b> | <b>-6.02</b> | <b>19.40</b>                                     | <b>19.48</b> | <b>19.76</b> |
| 3Txslots                  | 23.37                                            | 23.46        | 23.76        | 25.00        | -4.26        | 19.11                                            | 19.20        | 19.50        |
| 4Txslots                  | 21.80                                            | 21.91        | 22.24        | 23.00        | -3.01        | 18.79                                            | 18.90        | 19.23        |
| GSM 1900<br>EGPRS(8PSK)   | Measured timeslot-averaged<br>output power (dBm) |              |              |              |              | Source-based time-averaged<br>output power (dBm) |              |              |
|                           | 810                                              | 661          | 512          |              |              | 810                                              | 661          | 512          |
| 1Txslot                   | 25.87                                            | 25.93        | 26.20        | 27.00        | -9.03        | 16.84                                            | 16.90        | 17.17        |
| 2Txslots                  | 23.77                                            | 23.86        | 24.20        | 25.00        | -6.02        | 17.75                                            | 17.84        | 18.18        |
| 3Txslots                  | 21.49                                            | 21.57        | 21.96        | 23.00        | -4.26        | 17.23                                            | 17.31        | 17.70        |
| 4Txslots                  | 19.92                                            | 19.96        | 20.09        | 21.00        | -3.01        | 16.91                                            | 16.95        | 17.08        |

## 11.2 WCDMA Measurement result

### WCDMA1900(ANT13 DSI2/3)

| Item     | band  | FDDII result        |                   |                     |         |
|----------|-------|---------------------|-------------------|---------------------|---------|
|          | ARFCN | 9538<br>(1907.6MHz) | 9400<br>(1880MHz) | 9262<br>(1852.4MHz) | Tune up |
| WCDMA    | \     | 14.08               | 14.26             | 13.93               | 15.50   |
| HSUPA    | 1     | 11.51               | 11.72             | 11.44               | 13.00   |
|          | 2     | 11.03               | 11.27             | 10.92               | 12.50   |
|          | 3     | 11.04               | 11.30             | 10.95               | 12.50   |
|          | 4     | 10.56               | 10.78             | 10.76               | 12.00   |
|          | 5     | 12.06               | 12.25             | 12.22               | 13.50   |
| HSPA+    |       | 12.67               | 12.84             | 12.56               | 14.00   |
| DC-HSDPA | 1     | 13.04               | 13.23             | 12.96               | 14.00   |
|          | 2     | 13.03               | 13.22             | 12.95               | 14.00   |
|          | 3     | 12.59               | 12.70             | 12.52               | 14.00   |
|          | 4     | 12.58               | 12.68             | 12.51               | 14.00   |

### WCDMA1900(ANT13 DSI4)

| Item     | band  | FDDII result        |                   |                     |         |
|----------|-------|---------------------|-------------------|---------------------|---------|
|          | ARFCN | 9538<br>(1907.6MHz) | 9400<br>(1880MHz) | 9262<br>(1852.4MHz) | Tune up |
| WCDMA    | \     | 22.08               | 22.30             | 22.02               | 23.50   |
| HSUPA    | 1     | 19.57               | 19.31             | 18.98               | 20.50   |
|          | 2     | 19.17               | 19.44             | 19.07               | 20.50   |
|          | 3     | 19.19               | 19.46             | 19.10               | 20.50   |
|          | 4     | 18.72               | 18.99             | 18.63               | 20.00   |
|          | 5     | 20.15               | 20.42             | 20.05               | 21.50   |
| HSPA+    |       | 20.55               | 20.73             | 20.51               | 22.00   |
| DC-HSDPA | 1     | 21.02               | 21.10             | 20.98               | 22.00   |
|          | 2     | 21                  | 21.08             | 20.96               | 22.00   |
|          | 3     | 20.58               | 20.68             | 20.41               | 22.00   |
|          | 4     | 20.59               | 20.66             | 20.40               | 22.00   |

**WCDMA1900(ANT13 DSI8/9/10)**

| Item            | band     | FDDII result        |                   |                     |         |
|-----------------|----------|---------------------|-------------------|---------------------|---------|
|                 | ARFCN    | 9538<br>(1907.6MHz) | 9400<br>(1880MHz) | 9262<br>(1852.4MHz) | Tune up |
| <b>WCDMA</b>    | \        | 16.63               | 16.80             | 16.50               | 18.00   |
| <b>HSUPA</b>    | <b>1</b> | 13.44               | 13.71             | 13.37               | 15.00   |
|                 | <b>2</b> | 13.6                | 13.82             | 13.49               | 15.00   |
|                 | <b>3</b> | 13.46               | 13.72             | 13.38               | 15.00   |
|                 | <b>4</b> | 12.93               | 13.15             | 12.85               | 14.50   |
|                 | <b>5</b> | 14.28               | 14.30             | 14.28               | 15.50   |
| <b>HSPA+</b>    |          | 15.05               | 15.29             | 15.04               | 16.50   |
| <b>DC-HSDPA</b> | <b>1</b> | 15.31               | 15.55             | 15.30               | 16.50   |
|                 | <b>2</b> | 15.32               | 15.53             | 15.31               | 16.50   |
|                 | <b>3</b> | 14.85               | 15.04             | 14.83               | 16.00   |
|                 | <b>4</b> | 14.84               | 15.02             | 14.82               | 16.00   |

**WCDMA1900(ANT31 DSI2/3)**

| Item            | band     | FDDII result        |                   |                     |         |
|-----------------|----------|---------------------|-------------------|---------------------|---------|
|                 | ARFCN    | 9538<br>(1907.6MHz) | 9400<br>(1880MHz) | 9262<br>(1852.4MHz) | Tune up |
| <b>WCDMA</b>    | \        | 23.27               | 23.58             | 23.36               | 24.50   |
| <b>HSUPA</b>    | <b>1</b> | 19.88               | 20.18             | 19.85               | 21.00   |
|                 | <b>2</b> | 19.87               | 20.16             | 19.84               | 21.00   |
|                 | <b>3</b> | 19.88               | 20.15             | 19.83               | 21.00   |
|                 | <b>4</b> | 19.41               | 19.70             | 19.52               | 21.00   |
|                 | <b>5</b> | 20.69               | 20.95             | 20.90               | 22.00   |
| <b>HSPA+</b>    |          | 21.29               | 21.58             | 21.47               | 23.00   |
| <b>DC-HSDPA</b> | <b>1</b> | 21.8                | 21.98             | 21.88               | 23.00   |
|                 | <b>2</b> | 21.79               | 21.99             | 21.90               | 23.00   |
|                 | <b>3</b> | 21.28               | 21.51             | 21.38               | 22.50   |
|                 | <b>4</b> | 21.27               | 21.50             | 21.39               | 22.50   |

**WCDMA1900(ANT31 DSI4)**

| Item     | band  | FDDII result        |                   |                     |         |
|----------|-------|---------------------|-------------------|---------------------|---------|
|          | ARFCN | 9538<br>(1907.6MHz) | 9400<br>(1880MHz) | 9262<br>(1852.4MHz) | Tune up |
| WCDMA    | \     | 21.71               | 21.95             | 21.74               | 23.20   |
| HSUPA    | 1     | 18.19               | 18.51             | 18.33               | 19.50   |
|          | 2     | 18.18               | 18.49             | 18.32               | 19.50   |
|          | 3     | 18.2                | 18.48             | 18.31               | 19.50   |
|          | 4     | 17.75               | 18.02             | 17.86               | 19.00   |
|          | 5     | 18.99               | 19.30             | 19.14               | 20.00   |
| HSPA+    |       | 19.58               | 19.88             | 19.72               | 20.50   |
| DC-HSDPA | 1     | 20.09               | 20.38             | 20.21               | 21.00   |
|          | 2     | 20.1                | 20.37             | 20.20               | 21.00   |
|          | 3     | 19.65               | 19.90             | 19.83               | 21.00   |
|          | 4     | 19.66               | 19.88             | 19.84               | 21.00   |

**WCDMA1900(ANT31 DSI8/9/10)**

| Item     | band  | FDDII result        |                   |                     |         |
|----------|-------|---------------------|-------------------|---------------------|---------|
|          | ARFCN | 9538<br>(1907.6MHz) | 9400<br>(1880MHz) | 9262<br>(1852.4MHz) | Tune up |
| WCDMA    | \     | 19.80               | 20.10             | 19.90               | 21.00   |
| HSUPA    | 1     | 16.42               | 16.82             | 16.74               | 17.50   |
|          | 2     | 16.38               | 16.70             | 16.62               | 17.50   |
|          | 3     | 16.4                | 16.68             | 16.50               | 17.50   |
|          | 4     | 15.95               | 16.22             | 16.18               | 17.50   |
|          | 5     | 17.2                | 17.50             | 17.46               | 18.50   |
| HSPA+    |       | 17.78               | 18.08             | 17.92               | 19.00   |
| DC-HSDPA | 1     | 18.28               | 18.58             | 18.42               | 19.50   |
|          | 2     | 18.3                | 18.57             | 18.42               | 19.50   |
|          | 3     | 17.85               | 18.10             | 17.93               | 19.00   |
|          | 4     | 17.86               | 18.08             | 17.92               | 19.00   |

**WCDMA1700(ANT13 DSI2/3)**

| Item     | band  | FDDIV result        |                     |                     |         |
|----------|-------|---------------------|---------------------|---------------------|---------|
|          | ARFCN | 1513<br>(1752.6MHz) | 1412<br>(1732.4MHz) | 1312<br>(1712.4MHz) | Tune up |
| WCDMA    | \     | 14.83               | 14.79               | 14.94               | 16.00   |
| HSUPA    | 1     | 12.03               | 12.16               | 12.17               | 13.50   |
|          | 2     | 11.29               | 11.62               | 11.67               | 13.00   |
|          | 3     | 11.58               | 11.65               | 11.69               | 13.00   |
|          | 4     | 11.03               | 11.14               | 11.20               | 12.50   |
|          | 5     | 12.53               | 12.60               | 12.64               | 14.00   |
| HSPA+    |       | 13.05               | 13.21               | 13.23               | 14.50   |
| DC-HSDPA | 1     | 13.52               | 13.68               | 13.70               | 14.50   |
|          | 2     | 13.53               | 13.70               | 13.71               | 14.50   |
|          | 3     | 13.09               | 13.32               | 13.33               | 14.50   |
|          | 4     | 13.1                | 13.30               | 13.31               | 14.50   |

**WCDMA1700(ANT13 DSI4)**

| Item     | band  | FDDIV result        |                     |                     |         |
|----------|-------|---------------------|---------------------|---------------------|---------|
|          | ARFCN | 1513<br>(1752.6MHz) | 1412<br>(1732.4MHz) | 1312<br>(1712.4MHz) | Tune up |
| WCDMA    | \     | 22.88               | 22.85               | 22.98               | 24.00   |
| HSUPA    | 1     | 19.6                | 19.64               | 19.74               | 21.00   |
|          | 2     | 19.71               | 19.79               | 19.84               | 21.00   |
|          | 3     | 19.72               | 19.80               | 19.83               | 21.00   |
|          | 4     | 19.23               | 19.30               | 19.32               | 20.50   |
|          | 5     | 20.5                | 20.62               | 20.64               | 22.00   |
| HSPA+    |       | 21.07               | 21.20               | 21.19               | 22.50   |
| DC-HSDPA | 1     | 21.48               | 21.56               | 21.62               | 22.50   |
|          | 2     | 21.49               | 21.55               | 21.63               | 22.50   |
|          | 3     | 21.03               | 21.11               | 21.20               | 22.50   |
|          | 4     | 21.02               | 21.10               | 21.18               | 22.50   |

**WCDMA1700(ANT13 DSI8/9/10)**

| Item     | band  | FDDIV result        |                     |                     |         |
|----------|-------|---------------------|---------------------|---------------------|---------|
|          | ARFCN | 1513<br>(1752.6MHz) | 1412<br>(1732.4MHz) | 1312<br>(1712.4MHz) | Tune up |
| WCDMA    | \     | 17.34               | 17.37               | 17.48               | 18.50   |
| HSUPA    | 1     | 13.96               | 14.20               | 14.12               | 15.50   |
|          | 2     | 14.13               | 14.22               | 14.26               | 15.50   |
|          | 3     | 14.33               | 14.42               | 14.45               | 15.50   |
|          | 4     | 13.81               | 13.90               | 13.92               | 15.00   |
|          | 5     | 15.17               | 15.25               | 15.28               | 16.50   |
| HSPA+    |       | 15.64               | 15.68               | 15.80               | 16.50   |
| DC-HSDPA | 1     | 16.22               | 16.27               | 16.38               | 17.50   |
|          | 2     | 16.23               | 16.26               | 16.37               | 17.50   |
|          | 3     | 15.75               | 15.78               | 15.86               | 17.00   |
|          | 4     | 15.74               | 15.77               | 15.85               | 17.00   |

**WCDMA1700(ANT31 DSI2/3)**

| Item     | band  | FDDIV result        |                     |                     |         |
|----------|-------|---------------------|---------------------|---------------------|---------|
|          | ARFCN | 1513<br>(1752.6MHz) | 1412<br>(1732.4MHz) | 1312<br>(1712.4MHz) | Tune up |
| WCDMA    | \     | 23.89               | 23.78               | 23.87               | 24.50   |
| HSUPA    | 1     | 20.32               | 20.35               | 20.32               | 21.50   |
|          | 2     | 20.45               | 20.47               | 20.44               | 21.50   |
|          | 3     | 20.47               | 20.48               | 20.45               | 21.50   |
|          | 4     | 19.98               | 20.00               | 19.95               | 21.00   |
|          | 5     | 21.27               | 21.25               | 21.28               | 22.50   |
| HSPA+    |       | 21.89               | 21.88               | 21.91               | 23.00   |
| DC-HSDPA | 1     | 22.33               | 22.28               | 22.32               | 23.50   |
|          | 2     | 22.31               | 22.29               | 22.33               | 23.50   |
|          | 3     | 21.86               | 21.82               | 21.86               | 23.00   |
|          | 4     | 21.85               | 21.83               | 21.85               | 23.00   |

**WCDMA1700(ANT31 DSI4)**

| Item     | band  | FDDIV result        |                     |                     |         |
|----------|-------|---------------------|---------------------|---------------------|---------|
|          | ARFCN | 1513<br>(1752.6MHz) | 1412<br>(1732.4MHz) | 1312<br>(1712.4MHz) | Tune up |
| WCDMA    | \     | 20.90               | 20.79               | 20.89               | 21.70   |
| HSUPA    | 1     | 17.24               | 17.26               | 17.23               | 18.50   |
|          | 2     | 17.35               | 17.37               | 17.32               | 18.50   |
|          | 3     | 17.36               | 17.38               | 17.34               | 18.50   |
|          | 4     | 16.87               | 16.89               | 16.84               | 18.00   |
|          | 5     | 18.32               | 18.34               | 18.31               | 19.00   |
| HSPA+    |       | 18.94               | 18.96               | 18.91               | 19.50   |
| DC-HSDPA | 1     | 19.4                | 19.42               | 19.38               | 20.50   |
|          | 2     | 19.41               | 19.44               | 19.40               | 20.50   |
|          | 3     | 18.95               | 18.96               | 18.93               | 20.00   |
|          | 4     | 18.94               | 18.95               | 18.92               | 20.00   |

**WCDMA1700(ANT31 DSI8/9/10)**

| Item     | band  | FDDIV result        |                     |                     |         |
|----------|-------|---------------------|---------------------|---------------------|---------|
|          | ARFCN | 1513<br>(1752.6MHz) | 1412<br>(1732.4MHz) | 1312<br>(1712.4MHz) | Tune up |
| WCDMA    | \     | 19.86               | 19.80               | 19.88               | 20.50   |
| HSUPA    | 1     | 16.72               | 16.75               | 16.71               | 17.50   |
|          | 2     | 16.83               | 16.86               | 16.82               | 17.50   |
|          | 3     | 16.85               | 16.87               | 16.83               | 17.50   |
|          | 4     | 16.36               | 16.37               | 16.34               | 17.50   |
|          | 5     | 17.83               | 17.85               | 17.80               | 18.50   |
| HSPA+    |       | 18.43               | 18.45               | 18.41               | 19.50   |
| DC-HSDPA | 1     | 18.91               | 18.94               | 18.90               | 19.50   |
|          | 2     | 18.9                | 18.95               | 18.89               | 19.50   |
|          | 3     | 18.45               | 18.46               | 18.45               | 19.50   |
|          | 4     | 18.44               | 18.44               | 18.42               | 19.50   |

**WCDMA850(ANT13 DSI2/3)**

| Item     | band  | FDDV result     |                 |                 |         |
|----------|-------|-----------------|-----------------|-----------------|---------|
|          | ARFCN | 4233 (846.6MHz) | 4183 (836.6MHz) | 4132 (826.4MHz) | Tune up |
| WCDMA    | \     | 18.36           | 18.50           | 18.61           | 19.50   |
| HSUPA    | 1     | 15.16           | 15.13           | 15.29           | 16.50   |
|          | 2     | 14.65           | 14.63           | 14.79           | 15.50   |
|          | 3     | 15.17           | 15.30           | 15.43           | 16.50   |
|          | 4     | 14.74           | 14.80           | 14.94           | 16.00   |
|          | 5     | 16.26           | 16.24           | 16.44           | 17.50   |
| HSPA+    |       | 16.74           | 16.72           | 16.90           | 18.00   |
| DC-HSDPA | 1     | 17.22           | 17.20           | 17.36           | 18.50   |
|          | 2     | 17.23           | 17.21           | 17.35           | 18.50   |
|          | 3     | 16.77           | 16.74           | 16.88           | 18.00   |
|          | 4     | 16.76           | 16.75           | 16.87           | 18.00   |

**WCDMA850(ANT13 DSI4/10)**

| Item     | band  | FDDV result     |                 |                 |         |
|----------|-------|-----------------|-----------------|-----------------|---------|
|          | ARFCN | 4233 (846.6MHz) | 4183 (836.6MHz) | 4132 (826.4MHz) | Tune up |
| WCDMA    | \     | 23.37           | 23.49           | 23.55           | 24.50   |
| HSUPA    | 1     | 20.2            | 20.33           | 20.43           | 21.50   |
|          | 2     | 20.3            | 20.42           | 20.49           | 21.50   |
|          | 3     | 20.33           | 20.31           | 20.50           | 21.50   |
|          | 4     | 19.83           | 19.81           | 19.99           | 21.00   |
|          | 5     | 21.12           | 21.25           | 21.32           | 22.50   |
| HSPA+    |       | 21.68           | 21.86           | 21.96           | 23.00   |
| DC-HSDPA | 1     | 22.12           | 22.30           | 22.32           | 23.00   |
|          | 2     | 22.14           | 22.31           | 22.33           | 23.00   |
|          | 3     | 21.67           | 21.86           | 21.90           | 23.00   |
|          | 4     | 21.66           | 21.85           | 21.88           | 23.00   |

**WCDMA850(ANT41 DSI2/3/4/10)**

| Item     | band  | FDDV result     |                 |                 |         |
|----------|-------|-----------------|-----------------|-----------------|---------|
|          | ARFCN | 4233 (846.6MHz) | 4183 (836.6MHz) | 4132 (826.4MHz) | Tune up |
| WCDMA    | \     | 23.45           | 23.56           | 23.66           | 24.50   |
| HSUPA    | 1     | 20.04           | 20.15           | 20.23           | 21.50   |
|          | 2     | 20.15           | 20.25           | 20.32           | 21.50   |
|          | 3     | 20.16           | 20.26           | 20.31           | 21.50   |
|          | 4     | 19.65           | 19.74           | 19.81           | 21.00   |
|          | 5     | 21.01           | 21.10           | 21.16           | 22.00   |
| HSPA+    |       | 21.62           | 21.70           | 21.78           | 23.00   |
| DC-HSDPA | 1     | 22.1            | 22.18           | 22.24           | 23.50   |
|          | 2     | 22.08           | 22.16           | 22.22           | 23.50   |
|          | 3     | 21.65           | 21.76           | 21.83           | 23.00   |
|          | 4     | 21.62           | 21.74           | 21.80           | 23.00   |

### 11.3 LTE Measurement result

The maximum output power(Tune-up Limit)=Target power+ Uncertainty

| Mode/Band | ANT    | DSI2<br>(dBm) | DSI3<br>(dBm) | DSI4<br>(dBm) | DSI5<br>(dBm) | DSI8<br>(dBm) | DSI9<br>(dBm) | DSI10<br>(dBm) | Uncertainty<br>(dB) |
|-----------|--------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------------|
| LTE2      | Ant.13 | 14.5          | 14.5          | 23.0          | 18.0          | 17.5          | 17.5          | 17.5           | ±1                  |
| LTE4      | Ant.13 | 15.5          | 15.5          | 23.0          | 18.5          | 17.5          | 17.5          | 17.5           | ±1                  |
| LTE5      | Ant.13 | 19.0          | 19.0          | 23.5          | 23.5          | 23.5          | 23.5          | 23.5           | ±1                  |
| LTE7      | Ant.13 | 15.0          | 15.0          | 22.5          | 20.5          | 17.5          | 17.5          | 17.5           | ±1                  |
| LTE12     | Ant.13 | 20.5          | 20.5          | 23.5          | 23.5          | 23.5          | 23.5          | 23.5           | ±1                  |
| LTE13     | Ant.13 | 20.5          | 20.5          | 23.5          | 23.5          | 23.5          | 23.5          | 23.5           | ±1                  |
| LTE38     | Ant.13 | 18.0          | 18.0          | 23.0          | 22.5          | 21.5          | 21.5          | 21.5           | ±1                  |
| LTE41     | Ant.13 | 16.5          | 16.5          | 23.0          | 22.0          | 21.0          | 21.0          | 21.0           | ±1                  |
| LTE66     | Ant.13 | 13.5          | 13.5          | 23.0          | 19.0          | 18.0          | 18.0          | 18.0           | ±1                  |
| LTE2      | Ant.31 | 23.8          | 23.8          | 22.3          | 22.3          | 20.8          | 20.8          | 20.8           | ±1                  |
| LTE4      | Ant.31 | 23.8          | 23.8          | 20.8          | 20.8          | 19.8          | 19.8          | 19.8           | ±1                  |
| LTE5      | Ant.41 | 23.5          | 23.5          | 23.5          | 23.5          | 23.5          | 23.5          | 23.5           | ±1                  |
| LTE7      | Ant.31 | 23.0          | 23.0          | 21.0          | 21.0          | 20.0          | 20.0          | 20.0           | ±1                  |
| LTE12     | Ant.41 | 23.5          | 23.5          | 23.5          | 23.5          | 23.5          | 23.5          | 23.5           | ±1                  |
| LTE13     | Ant.41 | 23.5          | 23.5          | 23.5          | 23.5          | 23.5          | 23.5          | 23.5           | ±1                  |
| LTE38     | Ant.31 | 23.0          | 23.0          | 23.0          | 23.0          | 23.0          | 23.0          | 23.0           | ±1                  |
| LTE41     | Ant.31 | 23.0          | 23.0          | 23.0          | 23.0          | 23.0          | 23.0          | 23.0           | ±1                  |
| LTE66     | Ant.31 | 23.5          | 23.5          | 20.8          | 20.8          | 19.8          | 19.8          | 19.8           | ±1                  |

#### LTE Band2(ANT13 DSI2/3)

| Band 2          |               |                 |                           |       |       |
|-----------------|---------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 | RB offset     |                 | QPSK                      | 16QAM | 64QAM |
| 1.4MHz          | 1RB-High      | 1909.3          | 14.56                     | 14.96 | 14.78 |
|                 |               | 1880            | 14.48                     | 14.76 | 14.67 |
|                 |               | 1850.7          | 14.45                     | 14.63 | 14.61 |
|                 | 1RB-Middle    | 1909.3          | 14.57                     | 14.95 | 14.78 |
|                 |               | 1880            | 14.48                     | 14.76 | 14.67 |
|                 |               | 1850.7          | 14.46                     | 14.69 | 14.58 |
|                 | 1RB-Low       | 1909.3          | 14.55                     | 14.89 | 14.74 |
|                 |               | 1880            | 14.49                     | 14.76 | 14.66 |
|                 |               | 1850.7          | 14.43                     | 14.73 | 14.55 |
|                 | 3RB-High      | 1909.3          | 14.61                     | 14.63 | 14.69 |
|                 |               | 1880            | 14.50                     | 14.54 | 14.61 |
|                 |               | 1850.7          | 14.49                     | 14.55 | 14.57 |
|                 | 3RB-Middle    | 1909.3          | 14.58                     | 14.62 | 14.71 |
|                 |               | 1880            | 14.50                     | 14.51 | 14.57 |
|                 |               | 1850.7          | 14.48                     | 14.54 | 14.54 |
|                 | 3RB-Low       | 1909.3          | 14.62                     | 14.58 | 14.75 |
|                 |               | 1880            | 14.49                     | 14.57 | 14.56 |
|                 |               | 1850.7          | 14.48                     | 14.55 | 14.58 |
|                 | 6RB           | 1909.3          | 14.60                     | 14.65 | 14.59 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
| 3MHz  |             | 1880   | 14.50 | 14.61 | 14.50 |
|       |             | 1850.7 | 14.47 | 14.59 | 14.48 |
|       | 1RB-High    | 1908.5 | 14.58 | 14.83 | 14.75 |
|       |             | 1880   | 14.49 | 14.78 | 14.68 |
|       |             | 1851.5 | 14.45 | 14.64 | 14.60 |
|       | 1RB-Middle  | 1908.5 | 14.53 | 14.77 | 14.68 |
|       |             | 1880   | 14.52 | 14.68 | 14.64 |
|       |             | 1851.5 | 14.47 | 14.73 | 14.64 |
|       | 1RB-Low     | 1908.5 | 14.51 | 14.80 | 14.70 |
|       |             | 1880   | 14.47 | 14.76 | 14.70 |
|       |             | 1851.5 | 14.44 | 14.78 | 14.64 |
|       | 8RB-High    | 1908.5 | 14.58 | 14.68 | 14.66 |
|       |             | 1880   | 14.49 | 14.60 | 14.54 |
|       |             | 1851.5 | 14.46 | 14.52 | 14.52 |
|       | 8RB-Middle  | 1908.5 | 14.56 | 14.65 | 14.59 |
|       |             | 1880   | 14.46 | 14.58 | 14.50 |
|       |             | 1851.5 | 14.45 | 14.57 | 14.52 |
|       | 8RB-Low     | 1908.5 | 14.55 | 14.66 | 14.66 |
|       |             | 1880   | 14.50 | 14.57 | 14.56 |
|       |             | 1851.5 | 14.47 | 14.55 | 14.53 |
|       | 15RB        | 1908.5 | 14.52 | 14.62 | 14.60 |
|       |             | 1880   | 14.47 | 14.50 | 14.50 |
|       |             | 1851.5 | 14.45 | 14.50 | 14.44 |
| 5MHz  | 1RB-High    | 1907.5 | 14.63 | 14.90 | 14.74 |
|       |             | 1880   | 14.50 | 14.68 | 14.68 |
|       |             | 1852.5 | 14.45 | 14.69 | 14.57 |
|       | 1RB-Middle  | 1907.5 | 14.60 | 14.78 | 14.78 |
|       |             | 1880   | 14.56 | 14.70 | 14.64 |
|       |             | 1852.5 | 14.47 | 14.76 | 14.67 |
|       | 1RB-Low     | 1907.5 | 14.53 | 14.74 | 14.68 |
|       |             | 1880   | 14.53 | 14.74 | 14.68 |
|       |             | 1852.5 | 14.50 | 14.75 | 14.63 |
|       | 12RB-High   | 1907.5 | 14.54 | 14.55 | 14.60 |
|       |             | 1880   | 14.48 | 14.50 | 14.51 |
|       |             | 1852.5 | 14.48 | 14.47 | 14.49 |
|       | 12RB-Middle | 1907.5 | 14.58 | 14.61 | 14.66 |
|       |             | 1880   | 14.52 | 14.51 | 14.58 |
|       |             | 1852.5 | 14.44 | 14.48 | 14.50 |
|       | 12RB-Low    | 1907.5 | 14.61 | 14.65 | 14.64 |
|       |             | 1880   | 14.52 | 14.56 | 14.61 |
|       |             | 1852.5 | 14.51 | 14.54 | 14.57 |
|       | 25RB        | 1907.5 | 14.58 | 14.63 | 14.65 |
|       |             | 1880   | 14.55 | 14.55 | 14.56 |
|       |             | 1852.5 | 14.50 | 14.53 | 14.49 |
| 10MHz | 1RB-High    | 1905   | 14.58 | 14.88 | 14.73 |
|       |             | 1880   | 14.52 | 14.68 | 14.76 |
|       |             | 1855   | 14.40 | 14.69 | 14.55 |
|       | 1RB-Middle  | 1905   | 14.54 | 14.88 | 14.69 |
|       |             | 1880   | 14.53 | 14.72 | 14.75 |
|       |             | 1855   | 14.46 | 14.72 | 14.67 |
|       | 1RB-Low     | 1905   | 14.46 | 14.66 | 14.58 |
|       |             | 1880   | 14.50 | 14.64 | 14.67 |
|       |             | 1855   | 14.46 | 14.64 | 14.62 |
|       | 25RB-High   | 1905   | 14.55 | 14.51 | 14.55 |
|       |             | 1880   | 14.51 | 14.54 | 14.49 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       | 25RB-Middle | 1855   | 14.49 | 14.50 | 14.48 |
|       |             | 1905   | 14.55 | 14.59 | 14.56 |
|       |             | 1880   | 14.53 | 14.56 | 14.56 |
|       | 25RB-Low    | 1855   | 14.52 | 14.50 | 14.52 |
|       |             | 1905   | 14.51 | 14.63 | 14.60 |
|       |             | 1880   | 14.52 | 14.54 | 14.54 |
|       | 50RB        | 1855   | 14.47 | 14.53 | 14.50 |
|       |             | 1905   | 14.59 | 14.60 | 14.59 |
|       |             | 1880   | 14.53 | 14.52 | 14.50 |
|       |             | 1855   | 14.55 | 14.55 | 14.48 |
| 15MHz | 1RB-High    | 1902.5 | 14.52 | 14.84 | 14.71 |
|       |             | 1880   | 14.44 | 14.74 | 14.63 |
|       |             | 1857.5 | 14.36 | 14.67 | 14.48 |
|       | 1RB-Middle  | 1902.5 | 14.49 | 14.82 | 14.66 |
|       |             | 1880   | 14.49 | 14.71 | 14.71 |
|       |             | 1857.5 | 14.46 | 14.80 | 14.60 |
|       | 1RB-Low     | 1902.5 | 14.44 | 14.68 | 14.64 |
|       |             | 1880   | 14.38 | 14.77 | 14.59 |
|       |             | 1857.5 | 14.41 | 14.66 | 14.53 |
|       | 36RB-High   | 1902.5 | 14.54 | 14.53 | 14.55 |
|       |             | 1880   | 14.45 | 14.52 | 14.49 |
|       |             | 1857.5 | 14.46 | 14.49 | 14.47 |
|       | 36RB-Middle | 1902.5 | 14.46 | 14.55 | 14.53 |
|       |             | 1880   | 14.51 | 14.51 | 14.54 |
|       |             | 1857.5 | 14.47 | 14.45 | 14.48 |
|       | 36RB-Low    | 1902.5 | 14.53 | 14.48 | 14.52 |
|       |             | 1880   | 14.51 | 14.50 | 14.47 |
|       |             | 1857.5 | 14.45 | 14.49 | 14.49 |
|       | 75RB        | 1902.5 | 14.54 | 14.53 | 14.48 |
|       |             | 1880   | 14.53 | 14.50 | 14.50 |
|       |             | 1857.5 | 14.48 | 14.44 | 14.45 |
| 20MHz | 1RB-High    | 1900   | 14.43 | 14.69 | 14.63 |
|       |             | 1880   | 14.34 | 14.62 | 14.49 |
|       |             | 1860   | 14.30 | 14.57 | 14.50 |
|       | 1RB-Middle  | 1900   | 14.40 | 14.68 | 14.51 |
|       |             | 1880   | 14.40 | 14.75 | 14.55 |
|       |             | 1860   | 14.46 | 14.76 | 14.65 |
|       | 1RB-Low     | 1900   | 14.30 | 14.64 | 14.43 |
|       |             | 1880   | 14.30 | 14.62 | 14.49 |
|       |             | 1860   | 14.39 | 14.56 | 14.57 |
|       | 50RB-High   | 1900   | 14.42 | 14.40 | 14.41 |
|       |             | 1880   | 14.34 | 14.38 | 14.35 |
|       |             | 1860   | 14.52 | 14.46 | 14.45 |
|       | 50RB-Middle | 1900   | 14.35 | 14.38 | 14.42 |
|       |             | 1880   | 14.42 | 14.43 | 14.43 |
|       |             | 1860   | 14.44 | 14.41 | 14.44 |
|       | 50RB-Low    | 1900   | 14.42 | 14.42 | 14.39 |
|       |             | 1880   | 14.41 | 14.48 | 14.45 |
|       |             | 1860   | 14.45 | 14.41 | 14.43 |
|       | 100RB       | 1900   | 14.40 | 14.33 | 14.36 |
|       |             | 1880   | 14.39 | 14.38 | 14.40 |
|       |             | 1860   | 14.41 | 14.45 | 14.41 |

**LTE Band2(ANT13 DSI4)**

| Band 2          |               |                 |                           |       |       |
|-----------------|---------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 | RB offset     |                 | QPSK                      | 16QAM | 64QAM |
| 1.4MHz          | 1RB-High      | 1909.3          | 23.09                     | 22.24 | 21.24 |
|                 |               | 1880            | 23.07                     | 22.26 | 21.20 |
|                 |               | 1850.7          | 22.93                     | 22.21 | 21.17 |
|                 | 1RB-Middle    | 1909.3          | 23.03                     | 22.28 | 21.21 |
|                 |               | 1880            | 23.07                     | 22.27 | 21.21 |
|                 |               | 1850.7          | 22.97                     | 22.17 | 21.18 |
|                 | 1RB-Low       | 1909.3          | 23.03                     | 22.21 | 21.19 |
|                 |               | 1880            | 23.08                     | 22.21 | 21.19 |
|                 |               | 1850.7          | 22.94                     | 22.12 | 21.25 |
|                 | 3RB-High      | 1909.3          | 23.06                     | 21.98 | 21.10 |
|                 |               | 1880            | 23.06                     | 22.00 | 21.04 |
|                 |               | 1850.7          | 22.95                     | 21.95 | 21.17 |
|                 | 3RB-Middle    | 1909.3          | 23.07                     | 21.97 | 21.09 |
|                 |               | 1880            | 23.07                     | 22.02 | 21.06 |
|                 |               | 1850.7          | 22.97                     | 21.99 | 21.19 |
|                 | 3RB-Low       | 1909.3          | 23.07                     | 22.03 | 21.10 |
|                 |               | 1880            | 23.06                     | 22.04 | 21.14 |
|                 |               | 1850.7          | 22.94                     | 21.96 | 21.16 |
|                 | 6RB           | 1909.3          | 22.07                     | 21.14 | 20.16 |
|                 |               | 1880            | 22.05                     | 21.07 | 20.17 |
|                 |               | 1850.7          | 21.96                     | 21.16 | 20.07 |
| 3MHz            | 1RB-High      | 1908.5          | 23.04                     | 22.20 | 21.19 |
|                 |               | 1880            | 23.07                     | 22.33 | 21.16 |
|                 |               | 1851.5          | 22.93                     | 22.27 | 21.19 |
|                 | 1RB-Middle    | 1908.5          | 23.06                     | 22.29 | 21.32 |
|                 |               | 1880            | 23.12                     | 22.23 | 21.22 |
|                 |               | 1851.5          | 22.93                     | 22.25 | 21.19 |
|                 | 1RB-Low       | 1908.5          | 22.99                     | 22.27 | 21.22 |
|                 |               | 1880            | 23.07                     | 22.28 | 21.11 |
|                 |               | 1851.5          | 22.93                     | 22.08 | 21.21 |
|                 | 8RB-High      | 1908.5          | 22.04                     | 21.08 | 20.18 |
|                 |               | 1880            | 21.99                     | 21.01 | 20.18 |
|                 |               | 1851.5          | 21.92                     | 21.16 | 20.08 |
|                 | 8RB-Middle    | 1908.5          | 22.02                     | 21.26 | 20.20 |
|                 |               | 1880            | 22.02                     | 21.05 | 20.18 |
|                 |               | 1851.5          | 21.95                     | 21.14 | 20.07 |
|                 | 8RB-Low       | 1908.5          | 22.05                     | 21.27 | 20.18 |
|                 |               | 1880            | 21.97                     | 21.07 | 20.16 |
|                 |               | 1851.5          | 21.88                     | 21.11 | 20.11 |
|                 | 15RB          | 1908.5          | 22.01                     | 21.18 | 20.16 |
|                 |               | 1880            | 22.00                     | 21.02 | 20.13 |
|                 |               | 1851.5          | 21.91                     | 21.09 | 20.04 |
| 5MHz            | 1RB-High      | 1907.5          | 23.09                     | 22.39 | 21.18 |
|                 |               | 1880            | 23.08                     | 22.32 | 21.19 |
|                 |               | 1852.5          | 22.97                     | 22.24 | 21.16 |
|                 | 1RB-Middle    | 1907.5          | 23.04                     | 22.35 | 21.38 |
|                 |               | 1880            | 23.14                     | 22.28 | 21.24 |
|                 |               | 1852.5          | 22.99                     | 22.27 | 21.26 |
|                 | 1RB-Low       | 1907.5          | 23.05                     | 22.28 | 21.29 |
|                 |               | 1880            | 23.12                     | 22.31 | 21.20 |
|                 |               | 1852.5          | 22.99                     | 22.07 | 21.29 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       | 12RB-High   | 1907.5 | 21.99 | 20.97 | 20.14 |
|       |             | 1880   | 22.01 | 21.01 | 20.15 |
|       |             | 1852.5 | 21.90 | 21.01 | 20.09 |
|       | 12RB-Middle | 1907.5 | 22.03 | 21.25 | 20.21 |
|       |             | 1880   | 22.04 | 21.01 | 20.20 |
|       |             | 1852.5 | 21.94 | 21.09 | 20.07 |
|       | 12RB-Low    | 1907.5 | 22.07 | 21.19 | 20.26 |
|       |             | 1880   | 22.09 | 21.07 | 20.21 |
|       |             | 1852.5 | 21.99 | 21.12 | 20.13 |
|       | 25RB        | 1907.5 | 22.06 | 21.21 | 20.18 |
|       |             | 1880   | 22.11 | 21.08 | 20.22 |
|       |             | 1852.5 | 21.93 | 21.09 | 20.08 |
| 10MHz | 1RB-High    | 1905   | 23.01 | 22.29 | 21.19 |
|       |             | 1880   | 23.09 | 22.34 | 21.11 |
|       |             | 1855   | 22.91 | 22.04 | 21.19 |
|       | 1RB-Middle  | 1905   | 23.08 | 22.22 | 21.21 |
|       |             | 1880   | 23.15 | 22.27 | 21.18 |
|       |             | 1855   | 23.00 | 22.17 | 21.21 |
|       | 1RB-Low     | 1905   | 23.02 | 22.26 | 21.24 |
|       |             | 1880   | 23.01 | 22.24 | 21.11 |
|       |             | 1855   | 22.94 | 22.20 | 21.13 |
|       | 25RB-High   | 1905   | 21.98 | 21.15 | 20.13 |
|       |             | 1880   | 22.04 | 20.98 | 20.18 |
|       |             | 1855   | 21.95 | 21.12 | 20.11 |
|       | 25RB-Middle | 1905   | 22.01 | 21.14 | 20.14 |
|       |             | 1880   | 22.04 | 21.03 | 20.20 |
|       |             | 1855   | 21.96 | 21.10 | 20.09 |
|       | 25RB-Low    | 1905   | 22.04 | 21.18 | 20.19 |
|       |             | 1880   | 22.04 | 21.02 | 20.20 |
|       |             | 1855   | 21.89 | 21.10 | 20.12 |
|       | 50RB        | 1905   | 22.05 | 21.16 | 20.18 |
|       |             | 1880   | 22.05 | 21.00 | 20.19 |
|       |             | 1855   | 22.00 | 21.09 | 20.13 |
| 15MHz | 1RB-High    | 1902.5 | 22.96 | 22.21 | 21.09 |
|       |             | 1880   | 22.97 | 22.14 | 21.06 |
|       |             | 1857.5 | 22.82 | 21.98 | 21.09 |
|       | 1RB-Middle  | 1902.5 | 22.98 | 22.16 | 21.24 |
|       |             | 1880   | 23.02 | 22.30 | 21.17 |
|       |             | 1857.5 | 22.94 | 22.21 | 21.26 |
|       | 1RB-Low     | 1902.5 | 22.90 | 22.22 | 20.95 |
|       |             | 1880   | 22.88 | 22.22 | 20.99 |
|       |             | 1857.5 | 22.87 | 22.10 | 21.15 |
|       | 36RB-High   | 1902.5 | 21.87 | 21.04 | 20.06 |
|       |             | 1880   | 21.97 | 21.00 | 20.12 |
|       |             | 1857.5 | 21.88 | 21.02 | 20.08 |
|       | 36RB-Middle | 1902.5 | 21.93 | 21.04 | 20.10 |
|       |             | 1880   | 22.01 | 20.99 | 20.18 |
|       |             | 1857.5 | 21.88 | 21.03 | 20.03 |
|       | 36RB-Low    | 1902.5 | 21.93 | 21.06 | 20.13 |
|       |             | 1880   | 21.96 | 20.96 | 20.18 |
|       |             | 1857.5 | 21.81 | 20.97 | 20.03 |
|       | 75RB        | 1902.5 | 21.94 | 21.06 | 20.09 |
|       |             | 1880   | 21.98 | 20.99 | 20.07 |
|       |             | 1857.5 | 21.90 | 21.02 | 19.99 |
| 20MHz | 1RB-High    | 1900   | 22.87 | 22.06 | 21.12 |

|  |             |      |       |       |       |
|--|-------------|------|-------|-------|-------|
|  |             | 1880 | 22.89 | 22.11 | 20.98 |
|  |             | 1860 | 22.82 | 22.15 | 20.90 |
|  |             | 1900 | 22.92 | 22.19 | 21.15 |
|  | 1RB-Middle  | 1880 | 23.08 | 22.17 | 21.12 |
|  |             | 1860 | 22.94 | 22.10 | 21.14 |
|  |             | 1900 | 22.86 | 22.17 | 20.95 |
|  | 1RB-Low     | 1880 | 22.84 | 22.14 | 20.96 |
|  |             | 1860 | 22.91 | 22.16 | 21.17 |
|  |             | 1900 | 21.86 | 20.97 | 19.97 |
|  | 50RB-High   | 1880 | 22.04 | 21.09 | 20.08 |
|  |             | 1860 | 21.91 | 20.88 | 19.96 |
|  |             | 1900 | 21.89 | 20.99 | 19.97 |
|  | 50RB-Middle | 1880 | 21.98 | 20.99 | 20.08 |
|  |             | 1860 | 21.92 | 21.02 | 20.03 |
|  |             | 1900 | 21.90 | 21.03 | 19.98 |
|  | 50RB-Low    | 1880 | 21.99 | 20.96 | 20.12 |
|  |             | 1860 | 21.91 | 21.02 | 20.02 |
|  |             | 1900 | 21.86 | 21.00 | 19.97 |
|  | 100RB       | 1880 | 21.98 | 20.92 | 20.07 |
|  |             | 1860 | 21.94 | 21.05 | 19.99 |

#### LTE Band2(ANT13 DSI8/9/10)

| Band 2          |               |                 |                           |       |       |
|-----------------|---------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 | RB offset     |                 | QPSK                      | 16QAM | 64QAM |
| 1.4MHz          | 1RB-High      | 1909.3          | 17.59                     | 17.94 | 17.76 |
|                 |               | 1880            | 17.52                     | 17.82 | 17.67 |
|                 |               | 1850.7          | 17.44                     | 17.78 | 17.68 |
|                 | 1RB-Middle    | 1909.3          | 17.54                     | 17.92 | 17.77 |
|                 |               | 1880            | 17.54                     | 17.76 | 17.70 |
|                 |               | 1850.7          | 17.44                     | 17.70 | 17.63 |
|                 | 1RB-Low       | 1909.3          | 17.55                     | 17.92 | 17.64 |
|                 |               | 1880            | 17.51                     | 17.80 | 17.76 |
|                 |               | 1850.7          | 17.46                     | 17.83 | 17.74 |
|                 | 3RB-High      | 1909.3          | 17.54                     | 17.56 | 17.67 |
|                 |               | 1880            | 17.52                     | 17.60 | 17.65 |
|                 |               | 1850.7          | 17.48                     | 17.46 | 17.57 |
|                 | 3RB-Middle    | 1909.3          | 17.57                     | 17.62 | 17.60 |
|                 |               | 1880            | 17.54                     | 17.51 | 17.67 |
|                 |               | 1850.7          | 17.49                     | 17.48 | 17.56 |
|                 | 3RB-Low       | 1909.3          | 17.56                     | 17.58 | 17.70 |
|                 |               | 1880            | 17.53                     | 17.55 | 17.67 |
|                 |               | 1850.7          | 17.48                     | 17.54 | 17.54 |
|                 | 6RB           | 1909.3          | 17.55                     | 17.63 | 17.54 |
|                 |               | 1880            | 17.51                     | 17.60 | 17.47 |
|                 |               | 1850.7          | 17.49                     | 17.53 | 17.49 |
| 3MHz            | 1RB-High      | 1908.5          | 17.54                     | 17.74 | 17.77 |
|                 |               | 1880            | 17.51                     | 17.90 | 17.71 |
|                 |               | 1851.5          | 17.46                     | 17.83 | 17.67 |
|                 | 1RB-Middle    | 1908.5          | 17.53                     | 17.75 | 17.80 |
|                 |               | 1880            | 17.59                     | 17.86 | 17.76 |
|                 |               | 1851.5          | 17.45                     | 17.73 | 17.77 |
|                 | 1RB-Low       | 1908.5          | 17.48                     | 17.72 | 17.62 |
|                 |               | 1880            | 17.52                     | 17.88 | 17.75 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       | 8RB-High    | 1851.5 | 17.46 | 17.68 | 17.61 |
|       |             | 1908.5 | 17.52 | 17.66 | 17.60 |
|       |             | 1880   | 17.51 | 17.64 | 17.58 |
|       | 8RB-Middle  | 1851.5 | 17.47 | 17.55 | 17.54 |
|       |             | 1908.5 | 17.55 | 17.64 | 17.56 |
|       |             | 1880   | 17.50 | 17.63 | 17.57 |
|       | 8RB-Low     | 1851.5 | 17.49 | 17.57 | 17.54 |
|       |             | 1908.5 | 17.55 | 17.61 | 17.59 |
|       |             | 1880   | 17.53 | 17.59 | 17.63 |
|       | 15RB        | 1851.5 | 17.49 | 17.57 | 17.55 |
|       |             | 1908.5 | 17.51 | 17.54 | 17.56 |
|       |             | 1880   | 17.49 | 17.57 | 17.57 |
| 5MHz  | 1RB-High    | 1851.5 | 17.44 | 17.51 | 17.50 |
|       |             | 1907.5 | 17.60 | 17.87 | 17.77 |
|       |             | 1880   | 17.57 | 17.93 | 17.76 |
|       | 1RB-Middle  | 1852.5 | 17.50 | 17.83 | 17.69 |
|       |             | 1907.5 | 17.57 | 17.75 | 17.78 |
|       |             | 1880   | 17.60 | 17.82 | 17.81 |
|       | 1RB-Low     | 1852.5 | 17.51 | 17.83 | 17.78 |
|       |             | 1907.5 | 17.51 | 17.86 | 17.69 |
|       |             | 1880   | 17.58 | 17.87 | 17.74 |
|       | 12RB-High   | 1852.5 | 17.50 | 17.83 | 17.70 |
|       |             | 1907.5 | 17.52 | 17.54 | 17.56 |
|       |             | 1880   | 17.50 | 17.55 | 17.61 |
|       | 12RB-Middle | 1852.5 | 17.47 | 17.43 | 17.53 |
|       |             | 1907.5 | 17.56 | 17.56 | 17.64 |
|       |             | 1880   | 17.54 | 17.56 | 17.60 |
|       | 12RB-Low    | 1852.5 | 17.45 | 17.50 | 17.48 |
|       |             | 1907.5 | 17.60 | 17.62 | 17.61 |
|       |             | 1880   | 17.61 | 17.58 | 17.62 |
|       | 25RB        | 1852.5 | 17.47 | 17.52 | 17.58 |
|       |             | 1907.5 | 17.60 | 17.57 | 17.57 |
|       |             | 1880   | 17.59 | 17.64 | 17.63 |
| 10MHz | 1RB-High    | 1852.5 | 17.52 | 17.52 | 17.50 |
|       |             | 1905   | 17.56 | 17.77 | 17.80 |
|       |             | 1880   | 17.58 | 17.94 | 17.74 |
|       | 1RB-Middle  | 1855   | 17.47 | 17.68 | 17.67 |
|       |             | 1905   | 17.52 | 17.87 | 17.74 |
|       |             | 1880   | 17.60 | 17.90 | 17.85 |
|       | 1RB-Low     | 1855   | 17.49 | 17.74 | 17.68 |
|       |             | 1905   | 17.50 | 17.68 | 17.61 |
|       |             | 1880   | 17.51 | 17.78 | 17.71 |
|       | 25RB-High   | 1855   | 17.48 | 17.67 | 17.66 |
|       |             | 1905   | 17.51 | 17.50 | 17.51 |
|       |             | 1880   | 17.55 | 17.59 | 17.60 |
|       | 25RB-Middle | 1855   | 17.51 | 17.52 | 17.49 |
|       |             | 1905   | 17.52 | 17.57 | 17.54 |
|       |             | 1880   | 17.52 | 17.59 | 17.59 |
|       | 25RB-Low    | 1855   | 17.51 | 17.54 | 17.51 |
|       |             | 1905   | 17.57 | 17.60 | 17.57 |
|       |             | 1880   | 17.59 | 17.63 | 17.63 |
|       | 50RB        | 1855   | 17.51 | 17.55 | 17.56 |
|       |             | 1905   | 17.58 | 17.60 | 17.55 |
|       |             | 1880   | 17.57 | 17.60 | 17.57 |
|       |             | 1855   | 17.56 | 17.55 | 17.54 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
| 15MHz | 1RB-High    | 1902.5 | 17.52 | 17.74 | 17.73 |
|       |             | 1880   | 17.45 | 17.77 | 17.69 |
|       |             | 1857.5 | 17.36 | 17.74 | 17.63 |
|       | 1RB-Middle  | 1902.5 | 17.51 | 17.77 | 17.74 |
|       |             | 1880   | 17.54 | 17.81 | 17.80 |
|       |             | 1857.5 | 17.46 | 17.74 | 17.60 |
|       | 1RB-Low     | 1902.5 | 17.47 | 17.79 | 17.61 |
|       |             | 1880   | 17.42 | 17.66 | 17.58 |
|       |             | 1857.5 | 17.41 | 17.69 | 17.69 |
|       | 36RB-High   | 1902.5 | 17.46 | 17.51 | 17.51 |
|       |             | 1880   | 17.51 | 17.57 | 17.56 |
|       |             | 1857.5 | 17.43 | 17.50 | 17.53 |
|       | 36RB-Middle | 1902.5 | 17.48 | 17.50 | 17.56 |
|       |             | 1880   | 17.52 | 17.53 | 17.60 |
|       |             | 1857.5 | 17.44 | 17.48 | 17.54 |
|       | 36RB-Low    | 1902.5 | 17.48 | 17.51 | 17.47 |
|       |             | 1880   | 17.50 | 17.53 | 17.56 |
|       |             | 1857.5 | 17.47 | 17.44 | 17.47 |
| 20MHz | 1RB-High    | 1902.5 | 17.52 | 17.55 | 17.50 |
|       |             | 1880   | 17.54 | 17.58 | 17.55 |
|       |             | 1857.5 | 17.47 | 17.47 | 17.48 |
|       | 1RB-Middle  | 1900   | 17.37 | 17.70 | 17.52 |
|       |             | 1880   | 17.36 | 17.71 | 17.57 |
|       |             | 1860   | 17.33 | 17.67 | 17.46 |
|       | 1RB-Low     | 1900   | 17.36 | 17.62 | 17.55 |
|       |             | 1880   | 17.41 | 17.60 | 17.63 |
|       |             | 1860   | 17.48 | 17.82 | 17.63 |
|       | 50RB-High   | 1900   | 17.28 | 17.71 | 17.41 |
|       |             | 1880   | 17.31 | 17.57 | 17.47 |
|       |             | 1860   | 17.37 | 17.58 | 17.62 |
|       | 50RB-Middle | 1900   | 17.37 | 17.37 | 17.39 |
|       |             | 1880   | 17.33 | 17.35 | 17.39 |
|       |             | 1860   | 17.52 | 17.48 | 17.51 |
|       | 50RB-Low    | 1900   | 17.40 | 17.39 | 17.38 |
|       |             | 1880   | 17.47 | 17.50 | 17.48 |
|       |             | 1860   | 17.41 | 17.44 | 17.39 |
|       | 100RB       | 1900   | 17.38 | 17.40 | 17.42 |
|       |             | 1880   | 17.48 | 17.49 | 17.46 |
|       |             | 1860   | 17.41 | 17.43 | 17.41 |

#### LTE Band2(ANT31 DSI2/3)

| Band 2          |               |                 |                           |       |       |
|-----------------|---------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 | RB offset     |                 | QPSK                      | 16QAM | 64QAM |
| 1.4MHz          | 1RB-High      | 1909.3          | 23.44                     | 22.74 | 21.56 |
|                 |               | 1880            | 23.51                     | 22.78 | 21.71 |
|                 |               | 1850.7          | 23.42                     | 22.61 | 21.74 |
|                 | 1RB-Middle    | 1909.3          | 23.42                     | 22.64 | 21.54 |
|                 |               | 1880            | 23.54                     | 22.86 | 21.66 |
|                 |               | 1850.7          | 23.47                     | 22.71 | 21.79 |
|                 | 1RB-Low       | 1909.3          | 23.46                     | 22.73 | 21.58 |
|                 |               |                 |                           |       |       |

|      |             |        |       |       |       |
|------|-------------|--------|-------|-------|-------|
|      |             | 1880   | 23.53 | 22.69 | 21.66 |
|      |             | 1850.7 | 23.46 | 22.70 | 21.71 |
|      |             | 1909.3 | 23.44 | 22.44 | 21.47 |
|      | 3RB-High    | 1880   | 23.50 | 22.47 | 21.51 |
|      |             | 1850.7 | 23.46 | 22.38 | 21.70 |
|      |             | 1909.3 | 23.43 | 22.49 | 21.54 |
|      | 3RB-Middle  | 1880   | 23.54 | 22.49 | 21.55 |
|      |             | 1850.7 | 23.44 | 22.41 | 21.71 |
|      |             | 1909.3 | 23.43 | 22.40 | 21.53 |
|      | 3RB-Low     | 1880   | 23.50 | 22.46 | 21.56 |
|      |             | 1850.7 | 23.47 | 22.33 | 21.69 |
|      |             | 1909.3 | 22.46 | 21.47 | 20.54 |
|      | 6RB         | 1880   | 22.49 | 21.58 | 20.59 |
|      |             | 1850.7 | 22.44 | 21.66 | 20.57 |
|      |             | 1908.5 | 23.44 | 22.66 | 21.56 |
| 3MHz | 1RB-High    | 1880   | 23.51 | 22.80 | 21.67 |
|      |             | 1851.5 | 23.43 | 22.70 | 21.75 |
|      |             | 1908.5 | 23.44 | 22.60 | 21.76 |
|      | 1RB-Middle  | 1880   | 23.54 | 22.77 | 21.71 |
|      |             | 1851.5 | 23.49 | 22.72 | 21.71 |
|      |             | 1908.5 | 23.40 | 22.57 | 21.65 |
|      | 1RB-Low     | 1880   | 23.55 | 22.74 | 21.66 |
|      |             | 1851.5 | 23.44 | 22.76 | 21.69 |
|      |             | 1908.5 | 22.43 | 21.45 | 20.57 |
|      | 8RB-High    | 1880   | 22.48 | 21.51 | 20.59 |
|      |             | 1851.5 | 22.41 | 21.67 | 20.60 |
|      |             | 1908.5 | 22.42 | 21.63 | 20.52 |
|      | 8RB-Middle  | 1880   | 22.50 | 21.52 | 20.62 |
|      |             | 1851.5 | 22.41 | 21.61 | 20.55 |
|      |             | 1908.5 | 22.42 | 21.64 | 20.59 |
|      | 8RB-Low     | 1880   | 22.49 | 21.50 | 20.64 |
|      |             | 1851.5 | 22.44 | 21.61 | 20.58 |
|      |             | 1908.5 | 22.39 | 21.57 | 20.50 |
|      | 15RB        | 1880   | 22.48 | 21.46 | 20.58 |
|      |             | 1851.5 | 22.37 | 21.60 | 20.54 |
|      |             | 1907.5 | 23.49 | 22.76 | 21.52 |
| 5MHz | 1RB-High    | 1880   | 23.56 | 22.77 | 21.67 |
|      |             | 1852.5 | 23.45 | 22.62 | 21.74 |
|      |             | 1907.5 | 23.52 | 22.80 | 21.74 |
|      | 1RB-Middle  | 1880   | 23.60 | 22.79 | 21.71 |
|      |             | 1852.5 | 23.52 | 22.73 | 21.77 |
|      |             | 1907.5 | 23.44 | 22.68 | 21.65 |
|      | 1RB-Low     | 1880   | 23.58 | 22.75 | 21.66 |
|      |             | 1852.5 | 23.47 | 22.64 | 21.71 |
|      |             | 1907.5 | 22.41 | 21.35 | 20.56 |
|      | 12RB-High   | 1880   | 22.50 | 21.40 | 20.66 |
|      |             | 1852.5 | 22.47 | 21.59 | 20.55 |
|      |             | 1907.5 | 22.46 | 21.56 | 20.60 |
|      | 12RB-Middle | 1880   | 22.51 | 21.43 | 20.65 |
|      |             | 1852.5 | 22.42 | 21.60 | 20.56 |
|      |             | 1907.5 | 22.48 | 21.61 | 20.62 |
|      | 12RB-Low    | 1880   | 22.52 | 21.51 | 20.72 |
|      |             | 1852.5 | 22.41 | 21.62 | 20.61 |
|      |             | 1907.5 | 22.46 | 21.60 | 20.59 |
|      | 25RB        | 1880   | 22.57 | 21.52 | 20.67 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       |             | 1852.5 | 22.46 | 21.57 | 20.56 |
| 10MHz | 1RB-High    | 1905   | 23.49 | 22.75 | 21.57 |
|       |             | 1880   | 23.53 | 22.72 | 21.66 |
|       |             | 1855   | 23.42 | 22.65 | 21.68 |
|       | 1RB-Middle  | 1905   | 23.50 | 22.73 | 21.68 |
|       |             | 1880   | 23.61 | 22.84 | 21.66 |
|       |             | 1855   | 23.50 | 22.71 | 21.66 |
|       | 1RB-Low     | 1905   | 23.43 | 22.63 | 21.59 |
|       |             | 1880   | 23.47 | 22.80 | 21.53 |
|       |             | 1855   | 23.49 | 22.80 | 21.68 |
|       | 25RB-High   | 1905   | 22.40 | 21.53 | 20.54 |
|       |             | 1880   | 22.51 | 21.50 | 20.65 |
|       |             | 1855   | 22.47 | 21.64 | 20.60 |
|       | 25RB-Middle | 1905   | 22.40 | 21.57 | 20.52 |
|       |             | 1880   | 22.54 | 21.48 | 20.61 |
|       |             | 1855   | 22.46 | 21.62 | 20.60 |
|       | 25RB-Low    | 1905   | 22.46 | 21.68 | 20.63 |
|       |             | 1880   | 22.53 | 21.52 | 20.69 |
|       |             | 1855   | 22.42 | 21.58 | 20.57 |
|       | 50RB        | 1905   | 22.50 | 21.60 | 20.61 |
|       |             | 1880   | 22.53 | 21.49 | 20.67 |
|       |             | 1855   | 22.50 | 21.67 | 20.62 |
| 15MHz | 1RB-High    | 1902.5 | 23.46 | 22.64 | 21.53 |
|       |             | 1880   | 23.48 | 22.67 | 21.49 |
|       |             | 1857.5 | 23.39 | 22.58 | 21.60 |
|       | 1RB-Middle  | 1902.5 | 23.48 | 22.67 | 21.70 |
|       |             | 1880   | 23.59 | 22.78 | 21.67 |
|       |             | 1857.5 | 23.51 | 22.66 | 21.70 |
|       | 1RB-Low     | 1902.5 | 23.47 | 22.55 | 21.51 |
|       |             | 1880   | 23.46 | 22.72 | 21.49 |
|       |             | 1857.5 | 23.44 | 22.72 | 21.69 |
|       | 36RB-High   | 1902.5 | 22.35 | 21.52 | 20.43 |
|       |             | 1880   | 22.46 | 21.47 | 20.61 |
|       |             | 1857.5 | 22.41 | 21.62 | 20.59 |
|       | 36RB-Middle | 1902.5 | 22.40 | 21.54 | 20.51 |
|       |             | 1880   | 22.53 | 21.43 | 20.68 |
|       |             | 1857.5 | 22.44 | 21.55 | 20.53 |
|       | 36RB-Low    | 1902.5 | 22.46 | 21.60 | 20.54 |
|       |             | 1880   | 22.54 | 21.50 | 20.65 |
|       |             | 1857.5 | 22.37 | 21.52 | 20.54 |
|       | 75RB        | 1902.5 | 22.44 | 21.58 | 20.50 |
|       |             | 1880   | 22.53 | 21.47 | 20.56 |
|       |             | 1857.5 | 22.43 | 21.51 | 20.53 |
| 20MHz | 1RB-High    | 1900   | 23.41 | 22.66 | 21.62 |
|       |             | 1880   | 23.47 | 22.78 | 21.57 |
|       |             | 1860   | 23.41 | 22.63 | 21.45 |
|       | 1RB-Middle  | 1900   | 23.44 | 22.54 | 21.66 |
|       |             | 1880   | 23.66 | 22.82 | 21.69 |
|       |             | 1860   | 23.49 | 22.69 | 21.73 |
|       | 1RB-Low     | 1900   | 23.41 | 22.67 | 21.49 |
|       |             | 1880   | 23.41 | 22.59 | 21.51 |
|       |             | 1860   | 23.42 | 22.61 | 21.68 |
|       | 50RB-High   | 1900   | 22.27 | 21.38 | 20.35 |
|       |             | 1880   | 22.54 | 21.45 | 20.56 |
|       |             | 1860   | 22.51 | 21.68 | 20.59 |

|  |             |      |       |       |       |
|--|-------------|------|-------|-------|-------|
|  | 50RB-Middle | 1900 | 22.39 | 21.55 | 20.51 |
|  |             | 1880 | 22.58 | 21.52 | 20.64 |
|  |             | 1860 | 22.48 | 21.56 | 20.56 |
|  | 50RB-Low    | 1900 | 22.43 | 21.53 | 20.51 |
|  |             | 1880 | 22.63 | 21.62 | 20.73 |
|  |             | 1860 | 22.36 | 21.50 | 20.43 |
|  | 100RB       | 1900 | 22.31 | 21.41 | 20.42 |
|  |             | 1880 | 22.63 | 21.53 | 20.63 |
|  |             | 1860 | 22.46 | 21.55 | 20.50 |

#### LTE Band2(ANT31 DSI4)

| Band 2          |               |                 |                           |       |       |
|-----------------|---------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 | RB offset     |                 | QPSK                      | 16QAM | 64QAM |
| 1.4MHz          | 1RB-High      | 1909.3          | 21.99                     | 22.34 | 21.63 |
|                 |               | 1880            | 22.12                     | 22.40 | 21.73 |
|                 |               | 1850.7          | 21.99                     | 22.31 | 21.82 |
|                 | 1RB-Middle    | 1909.3          | 22.01                     | 22.19 | 21.63 |
|                 |               | 1880            | 22.08                     | 22.37 | 21.75 |
|                 |               | 1850.7          | 21.94                     | 22.32 | 21.87 |
|                 | 1RB-Low       | 1909.3          | 21.98                     | 22.33 | 21.67 |
|                 |               | 1880            | 22.11                     | 22.30 | 21.68 |
|                 |               | 1850.7          | 21.99                     | 22.35 | 21.85 |
|                 | 3RB-High      | 1909.3          | 21.98                     | 21.92 | 21.60 |
|                 |               | 1880            | 22.09                     | 22.01 | 21.67 |
|                 |               | 1850.7          | 21.99                     | 21.93 | 21.74 |
|                 | 3RB-Middle    | 1909.3          | 21.97                     | 21.96 | 21.55 |
|                 |               | 1880            | 22.12                     | 22.09 | 21.71 |
|                 |               | 1850.7          | 22.00                     | 21.98 | 21.79 |
|                 | 3RB-Low       | 1909.3          | 22.00                     | 22.02 | 21.54 |
|                 |               | 1880            | 22.06                     | 22.09 | 21.61 |
|                 |               | 1850.7          | 21.95                     | 22.02 | 21.79 |
|                 | 6RB           | 1909.3          | 22.02                     | 21.59 | 20.62 |
|                 |               | 1880            | 22.06                     | 21.64 | 20.64 |
|                 |               | 1850.7          | 22.01                     | 21.75 | 20.54 |
| 3MHz            | 1RB-High      | 1908.5          | 21.99                     | 22.31 | 21.65 |
|                 |               | 1880            | 22.07                     | 22.29 | 21.67 |
|                 |               | 1851.5          | 21.98                     | 22.34 | 21.83 |
|                 | 1RB-Middle    | 1908.5          | 21.98                     | 22.32 | 21.81 |
|                 |               | 1880            | 22.11                     | 22.32 | 21.88 |
|                 |               | 1851.5          | 21.99                     | 22.19 | 21.83 |
|                 | 1RB-Low       | 1908.5          | 21.94                     | 22.22 | 21.69 |
|                 |               | 1880            | 22.12                     | 22.27 | 21.73 |
|                 |               | 1851.5          | 21.98                     | 22.35 | 21.87 |
|                 | 8RB-High      | 1908.5          | 21.97                     | 21.56 | 20.66 |
|                 |               | 1880            | 22.07                     | 21.58 | 20.74 |
|                 |               | 1851.5          | 21.96                     | 21.72 | 20.69 |
|                 | 8RB-Middle    | 1908.5          | 21.96                     | 21.70 | 20.60 |
|                 |               | 1880            | 22.08                     | 21.62 | 20.76 |
|                 |               | 1851.5          | 21.97                     | 21.75 | 20.67 |
|                 | 8RB-Low       | 1908.5          | 21.97                     | 21.74 | 20.66 |
|                 |               | 1880            | 22.09                     | 21.66 | 20.78 |
|                 |               | 1851.5          | 22.00                     | 21.72 | 20.69 |
|                 | 15RB          | 1908.5          | 21.95                     | 21.66 | 20.62 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
| 5MHz  | 1RB-High    | 1880   | 22.06 | 21.60 | 20.67 |
|       |             | 1851.5 | 21.99 | 21.67 | 20.65 |
|       |             | 1907.5 | 22.04 | 22.29 | 21.72 |
|       | 1RB-Middle  | 1880   | 22.16 | 22.43 | 21.80 |
|       |             | 1852.5 | 21.98 | 22.29 | 21.87 |
|       |             | 1907.5 | 22.08 | 22.26 | 21.79 |
|       | 1RB-Low     | 1880   | 22.17 | 22.43 | 21.75 |
|       |             | 1852.5 | 22.07 | 22.33 | 21.86 |
|       |             | 1907.5 | 21.96 | 22.13 | 21.78 |
|       | 12RB-High   | 1880   | 22.15 | 22.33 | 21.85 |
|       |             | 1852.5 | 22.01 | 22.34 | 21.88 |
|       |             | 1907.5 | 21.98 | 21.41 | 20.66 |
|       | 12RB-Middle | 1880   | 22.09 | 21.59 | 20.74 |
|       |             | 1852.5 | 21.99 | 21.69 | 20.69 |
|       |             | 1907.5 | 22.04 | 21.63 | 20.68 |
|       | 12RB-Low    | 1880   | 22.10 | 21.56 | 20.76 |
|       |             | 1852.5 | 22.00 | 21.63 | 20.68 |
|       |             | 1907.5 | 22.04 | 21.70 | 20.70 |
|       | 25RB        | 1880   | 22.14 | 21.61 | 20.83 |
|       |             | 1852.5 | 22.02 | 21.65 | 20.67 |
|       |             | 1907.5 | 22.06 | 21.68 | 20.68 |
| 10MHz | 1RB-High    | 1905   | 21.95 | 22.31 | 21.62 |
|       |             | 1880   | 22.10 | 22.29 | 21.77 |
|       |             | 1855   | 21.95 | 22.22 | 21.75 |
|       | 1RB-Middle  | 1905   | 21.99 | 22.27 | 21.79 |
|       |             | 1880   | 22.13 | 22.35 | 21.76 |
|       |             | 1855   | 22.00 | 22.40 | 21.87 |
|       | 1RB-Low     | 1905   | 21.98 | 22.19 | 21.71 |
|       |             | 1880   | 22.05 | 22.31 | 21.75 |
|       |             | 1855   | 22.03 | 22.34 | 21.84 |
|       | 25RB-High   | 1905   | 21.95 | 21.64 | 20.62 |
|       |             | 1880   | 22.09 | 21.57 | 20.77 |
|       |             | 1855   | 22.05 | 21.77 | 20.70 |
|       | 25RB-Middle | 1905   | 21.99 | 21.66 | 20.64 |
|       |             | 1880   | 22.08 | 21.63 | 20.76 |
|       |             | 1855   | 22.03 | 21.70 | 20.66 |
|       | 25RB-Low    | 1905   | 22.09 | 21.77 | 20.68 |
|       |             | 1880   | 22.12 | 21.62 | 20.82 |
|       |             | 1855   | 21.98 | 21.66 | 20.63 |
|       | 50RB        | 1905   | 22.02 | 21.73 | 20.66 |
|       |             | 1880   | 22.13 | 21.61 | 20.80 |
|       |             | 1855   | 22.05 | 21.70 | 20.70 |
| 15MHz | 1RB-High    | 1902.5 | 21.95 | 22.27 | 21.53 |
|       |             | 1880   | 21.98 | 22.36 | 21.68 |
|       |             | 1857.5 | 21.90 | 22.21 | 21.72 |
|       | 1RB-Middle  | 1902.5 | 21.99 | 22.26 | 21.76 |
|       |             | 1880   | 22.11 | 22.43 | 21.70 |
|       |             | 1857.5 | 21.97 | 22.27 | 21.85 |
|       | 1RB-Low     | 1902.5 | 21.95 | 22.15 | 21.54 |
|       |             | 1880   | 22.00 | 22.12 | 21.65 |
|       |             | 1857.5 | 21.90 | 22.26 | 21.80 |
|       | 36RB-High   | 1902.5 | 21.91 | 21.57 | 20.58 |
|       |             | 1880   | 22.07 | 21.60 | 20.70 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       | 36RB-Middle | 1857.5 | 21.96 | 21.66 | 20.66 |
|       |             | 1902.5 | 21.93 | 21.63 | 20.57 |
|       |             | 1880   | 22.10 | 21.60 | 20.79 |
|       | 36RB-Low    | 1857.5 | 21.98 | 21.66 | 20.64 |
|       |             | 1902.5 | 22.00 | 21.67 | 20.60 |
|       |             | 1880   | 22.06 | 21.56 | 20.70 |
|       | 75RB        | 1857.5 | 21.90 | 21.64 | 20.61 |
|       |             | 1902.5 | 21.98 | 21.62 | 20.59 |
|       |             | 1880   | 22.10 | 21.56 | 20.74 |
|       |             | 1857.5 | 21.99 | 21.58 | 20.57 |
|       |             | 1900   | 21.82 | 22.07 | 21.64 |
|       |             | 1880   | 21.85 | 22.19 | 21.43 |
| 20MHz | 1RB-High    | 1860   | 21.82 | 22.10 | 21.43 |
|       |             | 1900   | 21.87 | 22.06 | 21.60 |
|       |             | 1880   | 22.05 | 22.40 | 21.67 |
|       | 1RB-Middle  | 1860   | 21.92 | 22.25 | 21.68 |
|       |             | 1900   | 21.76 | 22.07 | 21.53 |
|       |             | 1880   | 21.83 | 22.15 | 21.40 |
|       | 1RB-Low     | 1860   | 21.86 | 22.20 | 21.71 |
|       |             | 1900   | 21.69 | 21.37 | 20.33 |
|       |             | 1880   | 21.98 | 21.47 | 20.60 |
|       | 50RB-High   | 1860   | 21.98 | 21.61 | 20.62 |
|       |             | 1900   | 21.86 | 21.52 | 20.49 |
|       |             | 1880   | 22.06 | 21.53 | 20.62 |
|       | 50RB-Middle | 1860   | 21.96 | 21.55 | 20.54 |
|       |             | 1900   | 21.85 | 21.46 | 20.50 |
|       |             | 1880   | 22.10 | 21.57 | 20.71 |
|       | 50RB-Low    | 1860   | 21.84 | 21.47 | 20.48 |
|       |             | 1900   | 21.74 | 21.39 | 20.34 |
|       |             | 1880   | 22.06 | 21.54 | 20.68 |
|       | 100RB       | 1860   | 21.90 | 21.55 | 20.54 |

#### LTE Band2(ANT31 DSI8/9/10)

| Band 2          |                            |                 |                           |       |       |
|-----------------|----------------------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation<br>RB offset | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 |                            |                 | QPSK                      | 16QAM | 64QAM |
| 1.4MHz          | 1RB-High                   | 1909.3          | 20.58                     | 20.85 | 20.72 |
|                 |                            | 1880            | 20.63                     | 21.00 | 20.80 |
|                 |                            | 1850.7          | 20.55                     | 20.89 | 20.75 |
|                 | 1RB-Middle                 | 1909.3          | 20.59                     | 20.85 | 20.80 |
|                 |                            | 1880            | 20.67                     | 21.03 | 20.76 |
|                 |                            | 1850.7          | 20.56                     | 20.91 | 20.70 |
|                 | 1RB-Low                    | 1909.3          | 20.56                     | 20.88 | 20.74 |
|                 |                            | 1880            | 20.68                     | 20.94 | 20.80 |
|                 |                            | 1850.7          | 20.55                     | 20.92 | 20.69 |
|                 | 3RB-High                   | 1909.3          | 20.53                     | 20.54 | 20.69 |
|                 |                            | 1880            | 20.64                     | 20.66 | 20.75 |
|                 |                            | 1850.7          | 20.59                     | 20.51 | 20.67 |
|                 | 3RB-Middle                 | 1909.3          | 20.54                     | 20.53 | 20.68 |
|                 |                            | 1880            | 20.66                     | 20.69 | 20.79 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       | 3RB-Low     | 1850.7 | 20.59 | 20.49 | 20.73 |
|       |             | 1909.3 | 20.58 | 20.51 | 20.68 |
|       |             | 1880   | 20.64 | 20.64 | 20.75 |
|       | 6RB         | 1850.7 | 20.62 | 20.60 | 20.69 |
|       |             | 1909.3 | 20.60 | 20.68 | 20.51 |
|       |             | 1880   | 20.65 | 20.74 | 20.61 |
| 3MHz  | 1RB-High    | 1850.7 | 20.59 | 20.68 | 20.57 |
|       |             | 1908.5 | 20.58 | 20.83 | 20.80 |
|       |             | 1880   | 20.68 | 20.97 | 20.86 |
|       |             | 1851.5 | 20.61 | 20.95 | 20.67 |
|       | 1RB-Middle  | 1908.5 | 20.52 | 20.87 | 20.84 |
|       |             | 1880   | 20.64 | 21.05 | 20.88 |
|       |             | 1851.5 | 20.56 | 20.83 | 20.71 |
|       | 1RB-Low     | 1908.5 | 20.53 | 20.89 | 20.70 |
|       |             | 1880   | 20.63 | 20.89 | 20.82 |
|       |             | 1851.5 | 20.55 | 20.90 | 20.81 |
|       | 8RB-High    | 1908.5 | 20.56 | 20.66 | 20.57 |
|       |             | 1880   | 20.63 | 20.71 | 20.71 |
|       |             | 1851.5 | 20.57 | 20.62 | 20.61 |
|       | 8RB-Middle  | 1908.5 | 20.55 | 20.62 | 20.55 |
|       |             | 1880   | 20.65 | 20.69 | 20.70 |
|       |             | 1851.5 | 20.55 | 20.61 | 20.60 |
|       | 8RB-Low     | 1908.5 | 20.58 | 20.64 | 20.60 |
|       |             | 1880   | 20.67 | 20.72 | 20.69 |
|       |             | 1851.5 | 20.59 | 20.69 | 20.60 |
|       | 15RB        | 1908.5 | 20.53 | 20.58 | 20.56 |
|       |             | 1880   | 20.62 | 20.66 | 20.65 |
|       |             | 1851.5 | 20.59 | 20.61 | 20.61 |
| 5MHz  | 1RB-High    | 1907.5 | 20.60 | 20.98 | 20.77 |
|       |             | 1880   | 20.71 | 21.03 | 20.96 |
|       |             | 1852.5 | 20.62 | 20.78 | 20.85 |
|       | 1RB-Middle  | 1907.5 | 20.59 | 20.84 | 20.77 |
|       |             | 1880   | 20.71 | 20.96 | 20.88 |
|       |             | 1852.5 | 20.63 | 20.85 | 20.88 |
|       | 1RB-Low     | 1907.5 | 20.57 | 20.87 | 20.70 |
|       |             | 1880   | 20.70 | 20.92 | 20.82 |
|       |             | 1852.5 | 20.63 | 20.94 | 20.85 |
|       | 12RB-High   | 1907.5 | 20.52 | 20.53 | 20.59 |
|       |             | 1880   | 20.68 | 20.68 | 20.66 |
|       |             | 1852.5 | 20.61 | 20.60 | 20.60 |
|       | 12RB-Middle | 1907.5 | 20.57 | 20.57 | 20.63 |
|       |             | 1880   | 20.68 | 20.69 | 20.73 |
|       |             | 1852.5 | 20.60 | 20.55 | 20.61 |
|       | 12RB-Low    | 1907.5 | 20.62 | 20.65 | 20.65 |
|       |             | 1880   | 20.70 | 20.73 | 20.77 |
|       |             | 1852.5 | 20.56 | 20.63 | 20.67 |
|       | 25RB        | 1907.5 | 20.57 | 20.59 | 20.65 |
|       |             | 1880   | 20.68 | 20.70 | 20.74 |
|       |             | 1852.5 | 20.60 | 20.62 | 20.61 |
| 10MHz | 1RB-High    | 1905   | 20.55 | 20.96 | 20.73 |
|       |             | 1880   | 20.68 | 20.84 | 20.78 |
|       |             | 1855   | 20.55 | 20.69 | 20.74 |
|       | 1RB-Middle  | 1905   | 20.59 | 20.79 | 20.70 |
|       |             | 1880   | 20.72 | 21.05 | 20.85 |
|       |             | 1855   | 20.59 | 20.96 | 20.78 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       | 1RB-Low     | 1905   | 20.55 | 20.85 | 20.65 |
|       |             | 1880   | 20.63 | 20.91 | 20.77 |
|       |             | 1855   | 20.59 | 20.92 | 20.79 |
|       | 25RB-High   | 1905   | 20.54 | 20.50 | 20.51 |
|       |             | 1880   | 20.69 | 20.67 | 20.66 |
|       |             | 1855   | 20.60 | 20.68 | 20.65 |
|       | 25RB-Middle | 1905   | 20.59 | 20.57 | 20.55 |
|       |             | 1880   | 20.71 | 20.72 | 20.69 |
|       |             | 1855   | 20.60 | 20.61 | 20.61 |
|       | 25RB-Low    | 1905   | 20.68 | 20.70 | 20.67 |
|       |             | 1880   | 20.67 | 20.73 | 20.71 |
|       |             | 1855   | 20.56 | 20.56 | 20.56 |
|       | 50RB        | 1905   | 20.61 | 20.66 | 20.62 |
|       |             | 1880   | 20.66 | 20.66 | 20.68 |
|       |             | 1855   | 20.65 | 20.61 | 20.64 |
| 15MHz | 1RB-High    | 1902.5 | 20.50 | 20.87 | 20.71 |
|       |             | 1880   | 20.56 | 20.96 | 20.81 |
|       |             | 1857.5 | 20.48 | 20.85 | 20.71 |
|       | 1RB-Middle  | 1902.5 | 20.51 | 20.78 | 20.66 |
|       |             | 1880   | 20.69 | 21.04 | 20.85 |
|       |             | 1857.5 | 20.56 | 20.95 | 20.72 |
|       | 1RB-Low     | 1902.5 | 20.49 | 20.85 | 20.72 |
|       |             | 1880   | 20.53 | 20.89 | 20.82 |
|       |             | 1857.5 | 20.49 | 20.84 | 20.67 |
|       | 36RB-High   | 1902.5 | 20.47 | 20.48 | 20.49 |
|       |             | 1880   | 20.59 | 20.68 | 20.70 |
|       |             | 1857.5 | 20.53 | 20.62 | 20.62 |
|       | 36RB-Middle | 1902.5 | 20.50 | 20.52 | 20.54 |
|       |             | 1880   | 20.67 | 20.66 | 20.73 |
|       |             | 1857.5 | 20.52 | 20.54 | 20.58 |
|       | 36RB-Low    | 1902.5 | 20.53 | 20.59 | 20.57 |
|       |             | 1880   | 20.60 | 20.63 | 20.68 |
|       |             | 1857.5 | 20.49 | 20.53 | 20.55 |
|       | 75RB        | 1902.5 | 20.55 | 20.53 | 20.54 |
|       |             | 1880   | 20.62 | 20.64 | 20.60 |
|       |             | 1857.5 | 20.58 | 20.57 | 20.56 |
| 20MHz | 1RB-High    | 1900   | 20.52 | 20.86 | 20.64 |
|       |             | 1880   | 20.52 | 20.92 | 20.63 |
|       |             | 1860   | 20.47 | 20.76 | 20.69 |
|       | 1RB-Middle  | 1900   | 20.54 | 20.71 | 20.59 |
|       |             | 1880   | 20.69 | 20.96 | 20.80 |
|       |             | 1860   | 20.57 | 20.96 | 20.66 |
|       | 1RB-Low     | 1900   | 20.45 | 20.92 | 20.67 |
|       |             | 1880   | 20.51 | 20.84 | 20.65 |
|       |             | 1860   | 20.52 | 20.82 | 20.69 |
|       | 50RB-High   | 1900   | 20.37 | 20.38 | 20.35 |
|       |             | 1880   | 20.59 | 20.60 | 20.58 |
|       |             | 1860   | 20.63 | 20.59 | 20.63 |
|       | 50RB-Middle | 1900   | 20.51 | 20.48 | 20.50 |
|       |             | 1880   | 20.66 | 20.68 | 20.63 |
|       |             | 1860   | 20.60 | 20.54 | 20.57 |
|       | 50RB-Low    | 1900   | 20.53 | 20.50 | 20.51 |
|       |             | 1880   | 20.73 | 20.79 | 20.76 |
|       |             | 1860   | 20.53 | 20.48 | 20.49 |
|       | 100RB       | 1900   | 20.40 | 20.37 | 20.38 |

|  |  |      |       |       |       |
|--|--|------|-------|-------|-------|
|  |  | 1880 | 20.68 | 20.69 | 20.63 |
|  |  | 1860 | 20.53 | 20.53 | 20.50 |

**LTE Band4(ANT13 DSI2/3)**

| Band 4          |                            |                 |                           |       |       |
|-----------------|----------------------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation<br>RB offset | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 |                            |                 | QPSK                      | 16QAM | 64QAM |
| 1.4 MHz         | 1RB_High                   | 1754.3          | 14.56                     | 14.96 | 14.78 |
|                 |                            | 1732.5          | 14.48                     | 14.76 | 14.67 |
|                 |                            | 1710.7          | 14.45                     | 14.63 | 14.61 |
|                 | 1RB_Middle                 | 1754.3          | 14.57                     | 14.95 | 14.78 |
|                 |                            | 1732.5          | 14.48                     | 14.76 | 14.67 |
|                 |                            | 1710.7          | 14.46                     | 14.69 | 14.58 |
|                 | 1RB_Low                    | 1754.3          | 14.55                     | 14.89 | 14.74 |
|                 |                            | 1732.5          | 14.49                     | 14.76 | 14.66 |
|                 |                            | 1710.7          | 14.43                     | 14.73 | 14.55 |
|                 | 3RB_High                   | 1754.3          | 14.61                     | 14.63 | 14.69 |
|                 |                            | 1732.5          | 14.50                     | 14.54 | 14.61 |
|                 |                            | 1710.7          | 14.49                     | 14.55 | 14.57 |
|                 | 3RB_Middle                 | 1754.3          | 14.58                     | 14.62 | 14.71 |
|                 |                            | 1732.5          | 14.50                     | 14.51 | 14.57 |
|                 |                            | 1710.7          | 14.48                     | 14.54 | 14.54 |
|                 | 3RB_Low                    | 1754.3          | 14.62                     | 14.58 | 14.75 |
|                 |                            | 1732.5          | 14.49                     | 14.57 | 14.56 |
|                 |                            | 1710.7          | 14.48                     | 14.55 | 14.58 |
|                 | 6RB                        | 1754.3          | 14.60                     | 14.65 | 14.59 |
|                 |                            | 1732.5          | 14.50                     | 14.61 | 14.50 |
|                 |                            | 1710.7          | 14.47                     | 14.59 | 14.48 |
| 3 MHz           | 1RB_High                   | 1753.5          | 14.58                     | 14.83 | 14.75 |
|                 |                            | 1732.5          | 14.49                     | 14.78 | 14.68 |
|                 |                            | 1711.5          | 14.45                     | 14.64 | 14.60 |
|                 | 1RB_Middle                 | 1753.5          | 14.53                     | 14.77 | 14.68 |
|                 |                            | 1732.5          | 14.52                     | 14.68 | 14.64 |
|                 |                            | 1711.5          | 14.47                     | 14.73 | 14.64 |
|                 | 1RB_Low                    | 1753.5          | 14.51                     | 14.80 | 14.70 |
|                 |                            | 1732.5          | 14.47                     | 14.76 | 14.70 |
|                 |                            | 1711.5          | 14.44                     | 14.78 | 14.64 |
|                 | 8RB_High                   | 1753.5          | 14.58                     | 14.68 | 14.66 |
|                 |                            | 1732.5          | 14.49                     | 14.60 | 14.54 |
|                 |                            | 1711.5          | 14.46                     | 14.52 | 14.52 |
|                 | 8RB_Middle                 | 1753.5          | 14.56                     | 14.65 | 14.59 |
|                 |                            | 1732.5          | 14.46                     | 14.58 | 14.50 |
|                 |                            | 1711.5          | 14.45                     | 14.57 | 14.52 |
|                 | 8RB_Low                    | 1753.5          | 14.55                     | 14.66 | 14.66 |
|                 |                            | 1732.5          | 14.50                     | 14.57 | 14.56 |
|                 |                            | 1711.5          | 14.47                     | 14.55 | 14.53 |
|                 | 15RB                       | 1753.5          | 14.52                     | 14.62 | 14.60 |
|                 |                            | 1732.5          | 14.47                     | 14.50 | 14.50 |
|                 |                            | 1711.5          | 14.45                     | 14.50 | 14.44 |
| 5 MHz           | 1RB_High                   | 1752.5          | 14.63                     | 14.90 | 14.74 |
|                 |                            | 1732.5          | 14.50                     | 14.68 | 14.68 |
|                 |                            | 1712.5          | 14.45                     | 14.69 | 14.57 |
|                 | 1RB_Middle                 | 1752.5          | 14.60                     | 14.78 | 14.78 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       |             | 1732.5 | 14.56 | 14.70 | 14.64 |
|       |             | 1712.5 | 14.47 | 14.76 | 14.67 |
|       |             | 1752.5 | 14.53 | 14.74 | 14.68 |
|       | 1RB_Low     | 1732.5 | 14.53 | 14.74 | 14.68 |
|       |             | 1712.5 | 14.50 | 14.75 | 14.63 |
|       |             | 1752.5 | 14.54 | 14.55 | 14.60 |
|       | 12RB_High   | 1732.5 | 14.48 | 14.50 | 14.51 |
|       |             | 1712.5 | 14.48 | 14.47 | 14.49 |
|       |             | 1752.5 | 14.58 | 14.61 | 14.66 |
|       | 12RB_Middle | 1732.5 | 14.52 | 14.51 | 14.58 |
|       |             | 1712.5 | 14.44 | 14.48 | 14.50 |
|       |             | 1752.5 | 14.61 | 14.65 | 14.64 |
|       | 12RB_Low    | 1732.5 | 14.52 | 14.56 | 14.61 |
|       |             | 1712.5 | 14.51 | 14.54 | 14.57 |
|       |             | 1752.5 | 14.58 | 14.63 | 14.65 |
| 10MHz | 25RB        | 1732.5 | 14.55 | 14.55 | 14.56 |
|       |             | 1712.5 | 14.50 | 14.53 | 14.49 |
|       |             | 1750   | 14.58 | 14.88 | 14.73 |
|       | 1RB_High    | 1732.5 | 14.52 | 14.68 | 14.76 |
|       |             | 1715   | 14.40 | 14.69 | 14.55 |
|       |             | 1750   | 14.54 | 14.88 | 14.69 |
|       | 1RB_Middle  | 1732.5 | 14.53 | 14.72 | 14.75 |
|       |             | 1715   | 14.46 | 14.72 | 14.67 |
|       |             | 1750   | 14.46 | 14.66 | 14.58 |
|       | 1RB_Low     | 1732.5 | 14.50 | 14.64 | 14.67 |
|       |             | 1715   | 14.46 | 14.64 | 14.62 |
|       |             | 1750   | 14.55 | 14.51 | 14.55 |
|       | 25RB_High   | 1732.5 | 14.51 | 14.54 | 14.49 |
|       |             | 1715   | 14.49 | 14.50 | 14.48 |
|       |             | 1750   | 14.55 | 14.59 | 14.56 |
|       | 25RB_Middle | 1732.5 | 14.53 | 14.56 | 14.56 |
|       |             | 1715   | 14.52 | 14.50 | 14.52 |
|       |             | 1750   | 14.51 | 14.63 | 14.60 |
|       | 25RB_Low    | 1732.5 | 14.52 | 14.54 | 14.54 |
|       |             | 1715   | 14.47 | 14.53 | 14.50 |
|       |             | 1750   | 14.59 | 14.60 | 14.59 |
|       | 50RB        | 1732.5 | 14.53 | 14.52 | 14.50 |
|       |             | 1715   | 14.55 | 14.55 | 14.48 |
| 15MHz | 1RB_High    | 1747.5 | 14.52 | 14.84 | 14.71 |
|       |             | 1732.5 | 14.44 | 14.74 | 14.63 |
|       |             | 1717.5 | 14.36 | 14.67 | 14.48 |
|       | 1RB_Middle  | 1747.5 | 14.49 | 14.82 | 14.66 |
|       |             | 1732.5 | 14.49 | 14.71 | 14.71 |
|       |             | 1717.5 | 14.46 | 14.80 | 14.60 |
|       | 1RB_Low     | 1747.5 | 14.44 | 14.68 | 14.64 |
|       |             | 1732.5 | 14.38 | 14.77 | 14.59 |
|       |             | 1717.5 | 14.41 | 14.66 | 14.53 |
|       | 36RB_High   | 1747.5 | 14.54 | 14.53 | 14.55 |
|       |             | 1732.5 | 14.45 | 14.52 | 14.49 |
|       |             | 1717.5 | 14.46 | 14.49 | 14.47 |
|       | 36RB_Middle | 1747.5 | 14.46 | 14.55 | 14.53 |
|       |             | 1732.5 | 14.51 | 14.51 | 14.54 |
|       |             | 1717.5 | 14.47 | 14.45 | 14.48 |
|       | 36RB_Low    | 1747.5 | 14.53 | 14.48 | 14.52 |
|       |             | 1732.5 | 14.51 | 14.50 | 14.47 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
| 20MHz | 75RB        | 1717.5 | 14.45 | 14.49 | 14.49 |
|       |             | 1747.5 | 14.54 | 14.53 | 14.48 |
|       |             | 1732.5 | 14.53 | 14.50 | 14.50 |
|       |             | 1717.5 | 14.48 | 14.44 | 14.45 |
|       | 1RB_High    | 1745   | 14.43 | 14.69 | 14.63 |
|       |             | 1732.5 | 14.34 | 14.62 | 14.49 |
|       |             | 1720   | 14.30 | 14.57 | 14.50 |
|       | 1RB_Middle  | 1745   | 14.40 | 14.68 | 14.51 |
|       |             | 1732.5 | 14.40 | 14.75 | 14.55 |
|       |             | 1720   | 14.46 | 14.76 | 14.65 |
|       | 1RB_Low     | 1745   | 14.30 | 14.64 | 14.43 |
|       |             | 1732.5 | 14.30 | 14.62 | 14.49 |
|       |             | 1720   | 14.39 | 14.56 | 14.57 |
|       | 50RB_High   | 1745   | 14.42 | 14.40 | 14.41 |
|       |             | 1732.5 | 14.34 | 14.38 | 14.35 |
|       |             | 1720   | 14.52 | 14.46 | 14.45 |
|       | 50RB_Middle | 1745   | 14.35 | 14.38 | 14.42 |
|       |             | 1732.5 | 14.42 | 14.43 | 14.43 |
|       |             | 1720   | 14.44 | 14.41 | 14.44 |
|       | 50RB_Low    | 1745   | 14.42 | 14.42 | 14.39 |
|       |             | 1732.5 | 14.41 | 14.48 | 14.45 |
|       |             | 1720   | 14.45 | 14.41 | 14.43 |
|       | 100RB       | 1745   | 14.40 | 14.33 | 14.36 |
|       |             | 1732.5 | 14.39 | 14.38 | 14.40 |
|       |             | 1720   | 14.41 | 14.45 | 14.41 |

#### LTE Band4(ANT13 DSI4)

| Band 4          |                            |                 |                           |       |       |
|-----------------|----------------------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation<br>RB offset | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 |                            |                 | QPSK                      | 16QAM | 64QAM |
| 1.4 MHz         | 1RB_High                   | 1754.3          | 23.09                     | 22.24 | 21.24 |
|                 |                            | 1732.5          | 23.07                     | 22.26 | 21.20 |
|                 |                            | 1710.7          | 22.93                     | 22.21 | 21.17 |
|                 | 1RB_Middle                 | 1754.3          | 23.03                     | 22.28 | 21.21 |
|                 |                            | 1732.5          | 23.07                     | 22.27 | 21.21 |
|                 |                            | 1710.7          | 22.97                     | 22.17 | 21.18 |
|                 | 1RB_Low                    | 1754.3          | 23.03                     | 22.21 | 21.19 |
|                 |                            | 1732.5          | 23.08                     | 22.21 | 21.19 |
|                 |                            | 1710.7          | 22.94                     | 22.12 | 21.25 |
|                 | 3RB_High                   | 1754.3          | 23.06                     | 21.98 | 21.10 |
|                 |                            | 1732.5          | 23.06                     | 22.00 | 21.04 |
|                 |                            | 1710.7          | 22.95                     | 21.95 | 21.17 |
|                 | 3RB_Middle                 | 1754.3          | 23.07                     | 21.97 | 21.09 |
|                 |                            | 1732.5          | 23.07                     | 22.02 | 21.06 |
|                 |                            | 1710.7          | 22.97                     | 21.99 | 21.19 |
|                 | 3RB_Low                    | 1754.3          | 23.07                     | 22.03 | 21.10 |
|                 |                            | 1732.5          | 23.06                     | 22.04 | 21.14 |
|                 |                            | 1710.7          | 22.94                     | 21.96 | 21.16 |
|                 | 6RB                        | 1754.3          | 22.07                     | 21.14 | 20.16 |
|                 |                            | 1732.5          | 22.05                     | 21.07 | 20.17 |
|                 |                            | 1710.7          | 21.96                     | 21.16 | 20.07 |
| 3 MHz           | 1RB_High                   | 1753.5          | 23.04                     | 22.20 | 21.19 |
|                 |                            | 1732.5          | 23.07                     | 22.33 | 21.16 |
|                 |                            | 1711.5          | 22.93                     | 22.27 | 21.19 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       | 1RB_Middle  | 1753.5 | 23.06 | 22.29 | 21.32 |
|       |             | 1732.5 | 23.12 | 22.23 | 21.22 |
|       |             | 1711.5 | 22.93 | 22.25 | 21.19 |
|       | 1RB_Low     | 1753.5 | 22.99 | 22.27 | 21.22 |
|       |             | 1732.5 | 23.07 | 22.28 | 21.11 |
|       |             | 1711.5 | 22.93 | 22.08 | 21.21 |
|       | 8RB_High    | 1753.5 | 22.04 | 21.08 | 20.18 |
|       |             | 1732.5 | 21.99 | 21.01 | 20.18 |
|       |             | 1711.5 | 21.92 | 21.16 | 20.08 |
|       | 8RB_Middle  | 1753.5 | 22.02 | 21.26 | 20.20 |
|       |             | 1732.5 | 22.02 | 21.05 | 20.18 |
|       |             | 1711.5 | 21.95 | 21.14 | 20.07 |
|       | 8RB_Low     | 1753.5 | 22.05 | 21.27 | 20.18 |
|       |             | 1732.5 | 21.97 | 21.07 | 20.16 |
|       |             | 1711.5 | 21.88 | 21.11 | 20.11 |
| 5 MHz | 15RB        | 1753.5 | 22.01 | 21.18 | 20.16 |
|       |             | 1732.5 | 22.00 | 21.02 | 20.13 |
|       |             | 1711.5 | 21.91 | 21.09 | 20.04 |
|       | 1RB_High    | 1752.5 | 23.09 | 22.39 | 21.18 |
|       |             | 1732.5 | 23.08 | 22.32 | 21.19 |
|       |             | 1712.5 | 22.97 | 22.24 | 21.16 |
|       | 1RB_Middle  | 1752.5 | 23.04 | 22.35 | 21.38 |
|       |             | 1732.5 | 23.14 | 22.28 | 21.24 |
|       |             | 1712.5 | 22.99 | 22.27 | 21.26 |
|       | 1RB_Low     | 1752.5 | 23.05 | 22.28 | 21.29 |
|       |             | 1732.5 | 23.12 | 22.31 | 21.20 |
|       |             | 1712.5 | 22.99 | 22.07 | 21.29 |
|       | 12RB_High   | 1752.5 | 21.99 | 20.97 | 20.14 |
|       |             | 1732.5 | 22.01 | 21.01 | 20.15 |
|       |             | 1712.5 | 21.90 | 21.01 | 20.09 |
|       | 12RB_Middle | 1752.5 | 22.03 | 21.25 | 20.21 |
|       |             | 1732.5 | 22.04 | 21.01 | 20.20 |
|       |             | 1712.5 | 21.94 | 21.09 | 20.07 |
|       | 12RB_Low    | 1752.5 | 22.07 | 21.19 | 20.26 |
|       |             | 1732.5 | 22.09 | 21.07 | 20.21 |
|       |             | 1712.5 | 21.99 | 21.12 | 20.13 |
|       | 25RB        | 1752.5 | 22.06 | 21.21 | 20.18 |
|       |             | 1732.5 | 22.11 | 21.08 | 20.22 |
|       |             | 1712.5 | 21.93 | 21.09 | 20.08 |
| 10MHz | 1RB_High    | 1750   | 23.01 | 22.29 | 21.19 |
|       |             | 1732.5 | 23.09 | 22.34 | 21.11 |
|       |             | 1715   | 22.91 | 22.04 | 21.19 |
|       | 1RB_Middle  | 1750   | 23.08 | 22.22 | 21.21 |
|       |             | 1732.5 | 23.15 | 22.27 | 21.18 |
|       |             | 1715   | 23.00 | 22.17 | 21.21 |
|       | 1RB_Low     | 1750   | 23.02 | 22.26 | 21.24 |
|       |             | 1732.5 | 23.01 | 22.24 | 21.11 |
|       |             | 1715   | 22.94 | 22.20 | 21.13 |
|       | 25RB_High   | 1750   | 21.98 | 21.15 | 20.13 |
|       |             | 1732.5 | 22.04 | 20.98 | 20.18 |
|       |             | 1715   | 21.95 | 21.12 | 20.11 |
|       | 25RB_Middle | 1750   | 22.01 | 21.14 | 20.14 |
|       |             | 1732.5 | 22.04 | 21.03 | 20.20 |
|       |             | 1715   | 21.96 | 21.10 | 20.09 |
|       | 25RB_Low    | 1750   | 22.04 | 21.18 | 20.19 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       | 50RB        | 1732.5 | 22.04 | 21.02 | 20.20 |
|       |             | 1715   | 21.89 | 21.10 | 20.12 |
|       |             | 1750   | 22.05 | 21.16 | 20.18 |
|       |             | 1732.5 | 22.05 | 21.00 | 20.19 |
|       |             | 1715   | 22.00 | 21.09 | 20.13 |
| 15MHz | 1RB_High    | 1747.5 | 22.96 | 22.21 | 21.09 |
|       |             | 1732.5 | 22.97 | 22.14 | 21.06 |
|       |             | 1717.5 | 22.82 | 21.98 | 21.09 |
|       | 1RB_Middle  | 1747.5 | 22.98 | 22.16 | 21.24 |
|       |             | 1732.5 | 23.02 | 22.30 | 21.17 |
|       |             | 1717.5 | 22.94 | 22.21 | 21.26 |
|       | 1RB_Low     | 1747.5 | 22.90 | 22.22 | 20.95 |
|       |             | 1732.5 | 22.88 | 22.22 | 20.99 |
|       |             | 1717.5 | 22.87 | 22.10 | 21.15 |
|       | 36RB_High   | 1747.5 | 21.87 | 21.04 | 20.06 |
|       |             | 1732.5 | 21.97 | 21.00 | 20.12 |
|       |             | 1717.5 | 21.88 | 21.02 | 20.08 |
|       | 36RB_Middle | 1747.5 | 21.93 | 21.04 | 20.10 |
|       |             | 1732.5 | 22.01 | 20.99 | 20.18 |
|       |             | 1717.5 | 21.88 | 21.03 | 20.03 |
|       | 36RB_Low    | 1747.5 | 21.93 | 21.06 | 20.13 |
|       |             | 1732.5 | 21.96 | 20.96 | 20.18 |
|       |             | 1717.5 | 21.81 | 20.97 | 20.03 |
|       | 75RB        | 1747.5 | 21.94 | 21.06 | 20.09 |
|       |             | 1732.5 | 21.98 | 20.99 | 20.07 |
|       |             | 1717.5 | 21.90 | 21.02 | 19.99 |
| 20MHz | 1RB_High    | 1745   | 22.87 | 22.06 | 21.12 |
|       |             | 1732.5 | 22.89 | 22.11 | 20.98 |
|       |             | 1720   | 22.82 | 22.15 | 20.90 |
|       | 1RB_Middle  | 1745   | 22.92 | 22.19 | 21.15 |
|       |             | 1732.5 | 23.08 | 22.17 | 21.12 |
|       |             | 1720   | 22.94 | 22.10 | 21.14 |
|       | 1RB_Low     | 1745   | 22.86 | 22.17 | 20.95 |
|       |             | 1732.5 | 22.84 | 22.14 | 20.96 |
|       |             | 1720   | 22.91 | 22.16 | 21.17 |
|       | 50RB_High   | 1745   | 21.86 | 20.97 | 19.97 |
|       |             | 1732.5 | 22.04 | 21.09 | 20.08 |
|       |             | 1720   | 21.91 | 20.88 | 19.96 |
|       | 50RB_Middle | 1745   | 21.89 | 20.99 | 19.97 |
|       |             | 1732.5 | 21.98 | 20.99 | 20.08 |
|       |             | 1720   | 21.92 | 21.02 | 20.03 |
|       | 50RB_Low    | 1745   | 21.90 | 21.03 | 19.98 |
|       |             | 1732.5 | 21.99 | 20.96 | 20.12 |
|       |             | 1720   | 21.91 | 21.02 | 20.02 |
|       | 100RB       | 1745   | 21.86 | 21.00 | 19.97 |
|       |             | 1732.5 | 21.98 | 20.92 | 20.07 |
|       |             | 1720   | 21.94 | 21.05 | 19.99 |

#### LTE Band4(ANT13 DSI8/9/10)

| Band 4          |                            |                 |                           |       |       |
|-----------------|----------------------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation<br>RB offset | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 |                            |                 | QPSK                      | 16QAM | 64QAM |
| 1.4 MHz         | 1RB_High                   | 1754.3          | 17.59                     | 17.94 | 17.76 |
|                 |                            | 1732.5          | 17.52                     | 17.82 | 17.67 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       | 1RB_Middle  | 1710.7 | 17.44 | 17.78 | 17.68 |
|       |             | 1754.3 | 17.54 | 17.92 | 17.77 |
|       |             | 1732.5 | 17.54 | 17.76 | 17.70 |
|       | 1RB_Low     | 1710.7 | 17.44 | 17.70 | 17.63 |
|       |             | 1754.3 | 17.55 | 17.92 | 17.64 |
|       |             | 1732.5 | 17.51 | 17.80 | 17.76 |
|       | 3RB_High    | 1710.7 | 17.46 | 17.83 | 17.74 |
|       |             | 1754.3 | 17.54 | 17.56 | 17.67 |
|       |             | 1732.5 | 17.52 | 17.60 | 17.65 |
|       | 3RB_Middle  | 1710.7 | 17.48 | 17.46 | 17.57 |
|       |             | 1754.3 | 17.57 | 17.62 | 17.60 |
|       |             | 1732.5 | 17.54 | 17.51 | 17.67 |
|       | 3RB_Low     | 1710.7 | 17.49 | 17.48 | 17.56 |
|       |             | 1754.3 | 17.56 | 17.58 | 17.70 |
|       |             | 1732.5 | 17.53 | 17.55 | 17.67 |
|       | 6RB         | 1710.7 | 17.48 | 17.54 | 17.54 |
|       |             | 1754.3 | 17.55 | 17.63 | 17.54 |
|       |             | 1732.5 | 17.51 | 17.60 | 17.47 |
| 3 MHz | 1RB_High    | 1710.7 | 17.49 | 17.53 | 17.49 |
|       |             | 1754.3 | 17.55 | 17.63 | 17.54 |
|       |             | 1732.5 | 17.51 | 17.60 | 17.47 |
|       | 1RB_Middle  | 1753.5 | 17.54 | 17.74 | 17.77 |
|       |             | 1732.5 | 17.51 | 17.90 | 17.71 |
|       |             | 1711.5 | 17.46 | 17.83 | 17.67 |
|       | 1RB_Low     | 1753.5 | 17.53 | 17.75 | 17.80 |
|       |             | 1732.5 | 17.59 | 17.86 | 17.76 |
|       |             | 1711.5 | 17.45 | 17.73 | 17.77 |
|       | 8RB_High    | 1753.5 | 17.48 | 17.72 | 17.62 |
|       |             | 1732.5 | 17.52 | 17.88 | 17.75 |
|       |             | 1711.5 | 17.46 | 17.68 | 17.61 |
|       | 8RB_Middle  | 1753.5 | 17.52 | 17.66 | 17.60 |
|       |             | 1732.5 | 17.51 | 17.64 | 17.58 |
|       |             | 1711.5 | 17.47 | 17.55 | 17.54 |
|       | 8RB_Low     | 1753.5 | 17.55 | 17.64 | 17.56 |
|       |             | 1732.5 | 17.50 | 17.63 | 17.57 |
|       |             | 1711.5 | 17.49 | 17.57 | 17.54 |
|       | 15RB        | 1753.5 | 17.55 | 17.61 | 17.59 |
|       |             | 1732.5 | 17.53 | 17.59 | 17.63 |
|       |             | 1711.5 | 17.49 | 17.57 | 17.55 |
| 5 MHz | 1RB_High    | 1752.5 | 17.60 | 17.87 | 17.77 |
|       |             | 1732.5 | 17.57 | 17.93 | 17.76 |
|       |             | 1712.5 | 17.50 | 17.83 | 17.69 |
|       | 1RB_Middle  | 1752.5 | 17.57 | 17.75 | 17.78 |
|       |             | 1732.5 | 17.60 | 17.82 | 17.81 |
|       |             | 1712.5 | 17.51 | 17.83 | 17.78 |
|       | 1RB_Low     | 1752.5 | 17.51 | 17.86 | 17.69 |
|       |             | 1732.5 | 17.58 | 17.87 | 17.74 |
|       |             | 1712.5 | 17.50 | 17.83 | 17.70 |
|       | 12RB_High   | 1752.5 | 17.52 | 17.54 | 17.56 |
|       |             | 1732.5 | 17.50 | 17.55 | 17.61 |
|       |             | 1712.5 | 17.47 | 17.43 | 17.53 |
|       | 12RB_Middle | 1752.5 | 17.56 | 17.56 | 17.64 |
|       |             | 1732.5 | 17.54 | 17.56 | 17.60 |
|       |             | 1712.5 | 17.45 | 17.50 | 17.48 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       | 12RB_Low    | 1752.5 | 17.60 | 17.62 | 17.61 |
|       |             | 1732.5 | 17.61 | 17.58 | 17.62 |
|       |             | 1712.5 | 17.47 | 17.52 | 17.58 |
|       | 25RB        | 1752.5 | 17.60 | 17.57 | 17.57 |
|       |             | 1732.5 | 17.59 | 17.64 | 17.63 |
|       |             | 1712.5 | 17.52 | 17.52 | 17.50 |
| 10MHz | 1RB_High    | 1750   | 17.56 | 17.77 | 17.80 |
|       |             | 1732.5 | 17.58 | 17.94 | 17.74 |
|       |             | 1715   | 17.47 | 17.68 | 17.67 |
|       | 1RB_Middle  | 1750   | 17.52 | 17.87 | 17.74 |
|       |             | 1732.5 | 17.60 | 17.90 | 17.85 |
|       |             | 1715   | 17.49 | 17.74 | 17.68 |
|       | 1RB_Low     | 1750   | 17.50 | 17.68 | 17.61 |
|       |             | 1732.5 | 17.51 | 17.78 | 17.71 |
|       |             | 1715   | 17.48 | 17.67 | 17.66 |
|       | 25RB_High   | 1750   | 17.51 | 17.50 | 17.51 |
|       |             | 1732.5 | 17.55 | 17.59 | 17.60 |
|       |             | 1715   | 17.51 | 17.52 | 17.49 |
|       | 25RB_Middle | 1750   | 17.52 | 17.57 | 17.54 |
|       |             | 1732.5 | 17.52 | 17.59 | 17.59 |
|       |             | 1715   | 17.51 | 17.54 | 17.51 |
|       | 25RB_Low    | 1750   | 17.57 | 17.60 | 17.57 |
|       |             | 1732.5 | 17.59 | 17.63 | 17.63 |
|       |             | 1715   | 17.51 | 17.55 | 17.56 |
|       | 50RB        | 1750   | 17.58 | 17.60 | 17.55 |
|       |             | 1732.5 | 17.57 | 17.60 | 17.57 |
|       |             | 1715   | 17.56 | 17.55 | 17.54 |
| 15MHz | 1RB_High    | 1747.5 | 17.52 | 17.74 | 17.73 |
|       |             | 1732.5 | 17.45 | 17.77 | 17.69 |
|       |             | 1717.5 | 17.36 | 17.74 | 17.63 |
|       | 1RB_Middle  | 1747.5 | 17.51 | 17.77 | 17.74 |
|       |             | 1732.5 | 17.54 | 17.81 | 17.80 |
|       |             | 1717.5 | 17.46 | 17.74 | 17.60 |
|       | 1RB_Low     | 1747.5 | 17.47 | 17.79 | 17.61 |
|       |             | 1732.5 | 17.42 | 17.66 | 17.58 |
|       |             | 1717.5 | 17.41 | 17.69 | 17.69 |
|       | 36RB_High   | 1747.5 | 17.46 | 17.51 | 17.51 |
|       |             | 1732.5 | 17.51 | 17.57 | 17.56 |
|       |             | 1717.5 | 17.43 | 17.50 | 17.53 |
|       | 36RB_Middle | 1747.5 | 17.48 | 17.50 | 17.56 |
|       |             | 1732.5 | 17.52 | 17.53 | 17.60 |
|       |             | 1717.5 | 17.44 | 17.48 | 17.54 |
|       | 36RB_Low    | 1747.5 | 17.48 | 17.51 | 17.47 |
|       |             | 1732.5 | 17.50 | 17.53 | 17.56 |
|       |             | 1717.5 | 17.47 | 17.44 | 17.47 |
|       | 75RB        | 1747.5 | 17.52 | 17.55 | 17.50 |
|       |             | 1732.5 | 17.54 | 17.58 | 17.55 |
|       |             | 1717.5 | 17.47 | 17.47 | 17.48 |
| 20MHz | 1RB_High    | 1745   | 17.37 | 17.70 | 17.52 |
|       |             | 1732.5 | 17.36 | 17.71 | 17.57 |
|       |             | 1720   | 17.33 | 17.67 | 17.46 |
|       | 1RB_Middle  | 1745   | 17.36 | 17.62 | 17.55 |
|       |             | 1732.5 | 17.41 | 17.60 | 17.63 |
|       |             | 1720   | 17.48 | 17.82 | 17.63 |
|       | 1RB_Low     | 1745   | 17.28 | 17.71 | 17.41 |

|  |             |        |       |       |       |
|--|-------------|--------|-------|-------|-------|
|  | 50RB_High   | 1732.5 | 17.31 | 17.57 | 17.47 |
|  |             | 1720   | 17.37 | 17.58 | 17.62 |
|  |             | 1745   | 17.37 | 17.37 | 17.39 |
|  | 50RB_Middle | 1732.5 | 17.33 | 17.35 | 17.39 |
|  |             | 1720   | 17.52 | 17.48 | 17.51 |
|  |             | 1745   | 17.40 | 17.39 | 17.38 |
|  | 50RB_Low    | 1732.5 | 17.47 | 17.50 | 17.48 |
|  |             | 1720   | 17.41 | 17.44 | 17.39 |
|  |             | 1745   | 17.38 | 17.40 | 17.42 |
|  | 100RB       | 1732.5 | 17.48 | 17.49 | 17.46 |
|  |             | 1720   | 17.41 | 17.43 | 17.41 |
|  |             | 1745   | 17.34 | 17.31 | 17.35 |

### LTE Band4(ANT31 DSI2/3)

| Band 4          |               |                 |                           |       |       |
|-----------------|---------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 | RB offset     |                 | QPSK                      | 16QAM | 64QAM |
| 1.4 MHz         | 1RB_High      | 1754.3          | 23.72                     | 23.02 | 21.99 |
|                 |               | 1732.5          | 23.74                     | 22.93 | 22.07 |
|                 |               | 1710.7          | 23.78                     | 22.97 | 21.99 |
|                 | 1RB_Middle    | 1754.3          | 23.73                     | 22.95 | 21.99 |
|                 |               | 1732.5          | 23.73                     | 23.01 | 22.10 |
|                 |               | 1710.7          | 23.76                     | 22.93 | 22.07 |
|                 | 1RB_Low       | 1754.3          | 23.72                     | 22.99 | 21.95 |
|                 |               | 1732.5          | 23.75                     | 23.02 | 22.07 |
|                 |               | 1710.7          | 23.77                     | 22.93 | 22.06 |
|                 | 3RB_High      | 1754.3          | 23.74                     | 22.74 | 21.92 |
|                 |               | 1732.5          | 23.75                     | 22.75 | 21.91 |
|                 |               | 1710.7          | 23.78                     | 22.76 | 22.06 |
|                 | 3RB_Middle    | 1754.3          | 23.72                     | 22.67 | 21.92 |
|                 |               | 1732.5          | 23.79                     | 22.79 | 21.97 |
|                 |               | 1710.7          | 23.82                     | 22.82 | 22.07 |
|                 | 3RB_Low       | 1754.3          | 23.72                     | 22.75 | 21.93 |
|                 |               | 1732.5          | 23.81                     | 22.78 | 21.98 |
|                 |               | 1710.7          | 23.79                     | 22.82 | 22.03 |
|                 | 6RB           | 1754.3          | 22.70                     | 21.94 | 20.78 |
|                 |               | 1732.5          | 22.75                     | 21.99 | 20.88 |
|                 |               | 1710.7          | 22.78                     | 21.95 | 20.82 |
| 3 MHz           | 1RB_High      | 1753.5          | 23.72                     | 22.95 | 22.01 |
|                 |               | 1732.5          | 23.73                     | 22.91 | 22.06 |
|                 |               | 1711.5          | 23.82                     | 23.08 | 21.98 |
|                 | 1RB_Middle    | 1753.5          | 23.78                     | 22.96 | 22.01 |
|                 |               | 1732.5          | 23.79                     | 22.97 | 22.06 |
|                 |               | 1711.5          | 23.83                     | 22.97 | 22.08 |
|                 | 1RB_Low       | 1753.5          | 23.74                     | 22.84 | 22.02 |
|                 |               | 1732.5          | 23.76                     | 22.98 | 22.06 |
|                 |               | 1711.5          | 23.77                     | 22.97 | 22.04 |
|                 | 8RB_High      | 1753.5          | 22.68                     | 21.92 | 20.85 |
|                 |               | 1732.5          | 22.70                     | 21.93 | 20.90 |
|                 |               | 1711.5          | 22.74                     | 21.96 | 20.93 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       | 8RB_Low     | 1711.5 | 22.76 | 21.93 | 20.91 |
|       |             | 1753.5 | 22.74 | 21.94 | 20.90 |
|       |             | 1732.5 | 22.72 | 21.97 | 20.89 |
|       |             | 1711.5 | 22.78 | 21.96 | 20.92 |
|       | 15RB        | 1753.5 | 22.76 | 21.91 | 20.86 |
|       |             | 1732.5 | 22.72 | 21.89 | 20.85 |
|       |             | 1711.5 | 22.77 | 21.95 | 20.85 |
| 5 MHz | 1RB_High    | 1752.5 | 23.77 | 22.90 | 22.00 |
|       |             | 1732.5 | 23.79 | 23.03 | 22.06 |
|       |             | 1712.5 | 23.82 | 22.96 | 22.05 |
|       | 1RB_Middle  | 1752.5 | 23.74 | 22.94 | 21.97 |
|       |             | 1732.5 | 23.86 | 23.01 | 22.09 |
|       |             | 1712.5 | 23.94 | 23.01 | 22.03 |
|       | 1RB_Low     | 1752.5 | 23.79 | 22.97 | 22.01 |
|       |             | 1732.5 | 23.82 | 23.05 | 22.10 |
|       |             | 1712.5 | 23.84 | 23.01 | 22.09 |
|       | 12RB_High   | 1752.5 | 22.70 | 21.81 | 20.88 |
|       |             | 1732.5 | 22.75 | 21.87 | 20.88 |
|       |             | 1712.5 | 22.77 | 21.87 | 20.94 |
|       | 12RB_Middle | 1752.5 | 22.73 | 21.88 | 20.89 |
|       |             | 1732.5 | 22.78 | 21.90 | 20.91 |
|       |             | 1712.5 | 22.77 | 21.93 | 20.91 |
|       | 12RB_Low    | 1752.5 | 22.76 | 21.87 | 20.87 |
|       |             | 1732.5 | 22.81 | 21.93 | 20.95 |
|       |             | 1712.5 | 22.80 | 21.93 | 20.89 |
|       | 25RB        | 1752.5 | 22.76 | 21.92 | 20.86 |
|       |             | 1732.5 | 22.79 | 21.95 | 20.91 |
|       |             | 1712.5 | 22.78 | 21.92 | 20.92 |
| 10MHz | 1RB_High    | 1750   | 23.75 | 22.94 | 22.00 |
|       |             | 1732.5 | 23.74 | 22.91 | 22.01 |
|       |             | 1715   | 23.91 | 23.06 | 22.02 |
|       | 1RB_Middle  | 1750   | 23.83 | 23.12 | 22.06 |
|       |             | 1732.5 | 23.88 | 23.05 | 22.09 |
|       |             | 1715   | 23.88 | 22.96 | 22.10 |
|       | 1RB_Low     | 1750   | 23.78 | 23.05 | 22.03 |
|       |             | 1732.5 | 23.81 | 23.08 | 22.03 |
|       |             | 1715   | 23.81 | 22.97 | 22.01 |
|       | 25RB_High   | 1750   | 22.72 | 21.90 | 20.91 |
|       |             | 1732.5 | 22.76 | 21.91 | 20.87 |
|       |             | 1715   | 22.85 | 22.02 | 20.95 |
|       | 25RB_Middle | 1750   | 22.81 | 21.90 | 20.94 |
|       |             | 1732.5 | 22.74 | 21.92 | 20.91 |
|       |             | 1715   | 22.79 | 21.98 | 20.96 |
|       | 25RB_Low    | 1750   | 22.78 | 21.95 | 20.95 |
|       |             | 1732.5 | 22.80 | 21.94 | 20.96 |
|       |             | 1715   | 22.76 | 21.91 | 20.89 |
|       | 50RB        | 1750   | 22.79 | 21.91 | 20.93 |
|       |             | 1732.5 | 22.76 | 21.95 | 20.91 |
|       |             | 1715   | 22.82 | 21.98 | 20.90 |
| 15MHz | 1RB_High    | 1747.5 | 23.69 | 22.80 | 21.94 |
|       |             | 1732.5 | 23.69 | 22.90 | 22.00 |
|       |             | 1717.5 | 23.71 | 22.82 | 21.99 |
|       | 1RB_Middle  | 1747.5 | 23.78 | 23.07 | 22.02 |
|       |             | 1732.5 | 23.78 | 22.99 | 22.05 |
|       |             | 1717.5 | 23.80 | 23.09 | 22.08 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       | 1RB_Low     | 1747.5 | 23.64 | 22.94 | 21.91 |
|       |             | 1732.5 | 23.78 | 22.95 | 21.96 |
|       |             | 1717.5 | 23.72 | 22.83 | 22.00 |
|       | 36RB_High   | 1747.5 | 22.70 | 21.85 | 20.84 |
|       |             | 1732.5 | 22.72 | 21.83 | 20.89 |
|       |             | 1717.5 | 22.72 | 21.87 | 20.90 |
|       | 36RB_Middle | 1747.5 | 22.69 | 21.86 | 20.90 |
|       |             | 1732.5 | 22.73 | 21.85 | 20.86 |
|       |             | 1717.5 | 22.79 | 21.90 | 20.96 |
|       | 36RB_Low    | 1747.5 | 22.71 | 21.87 | 20.86 |
|       |             | 1732.5 | 22.68 | 21.89 | 20.86 |
|       |             | 1717.5 | 22.72 | 21.90 | 20.86 |
| 20MHz | 75RB        | 1747.5 | 22.69 | 21.83 | 20.87 |
|       |             | 1732.5 | 22.71 | 21.82 | 20.89 |
|       |             | 1717.5 | 22.75 | 21.85 | 20.89 |
|       | 1RB_High    | 1745   | 23.78 | 22.87 | 22.00 |
|       |             | 1732.5 | 23.68 | 22.85 | 21.85 |
|       |             | 1720   | 23.67 | 22.88 | 21.94 |
|       | 1RB_Middle  | 1745   | 23.88 | 23.12 | 21.99 |
|       |             | 1732.5 | 23.77 | 23.02 | 22.04 |
|       |             | 1720   | 23.83 | 22.99 | 22.00 |
|       | 1RB_Low     | 1745   | 23.62 | 22.90 | 21.85 |
|       |             | 1732.5 | 23.73 | 22.90 | 22.00 |
|       |             | 1720   | 23.86 | 22.93 | 22.05 |
|       | 50RB_High   | 1745   | 22.79 | 21.90 | 20.88 |
|       |             | 1732.5 | 22.74 | 21.84 | 20.80 |
|       |             | 1720   | 22.73 | 21.84 | 20.79 |
|       | 50RB_Middle | 1745   | 22.80 | 21.88 | 20.91 |
|       |             | 1732.5 | 22.71 | 21.79 | 20.77 |
|       |             | 1720   | 22.77 | 21.90 | 20.86 |
|       | 50RB_Low    | 1745   | 22.72 | 21.83 | 20.86 |
|       |             | 1732.5 | 22.65 | 21.84 | 20.78 |
|       |             | 1720   | 22.74 | 21.86 | 20.86 |
|       | 100RB       | 1745   | 22.76 | 21.84 | 20.84 |
|       |             | 1732.5 | 22.70 | 21.83 | 20.75 |
|       |             | 1720   | 22.74 | 21.79 | 20.78 |

#### LTE Band4(ANT31 DSI4)

| Band 4          |               |                 |                           |       |       |
|-----------------|---------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 | RB offset     |                 | QPSK                      | 16QAM | 64QAM |
| 1.4 MHz         | 1RB_High      | 1754.3          | 20.79                     | 21.18 | 21.03 |
|                 |               | 1732.5          | 20.78                     | 21.19 | 21.09 |
|                 |               | 1710.7          | 20.83                     | 21.15 | 21.03 |
|                 | 1RB_Middle    | 1754.3          | 20.82                     | 21.11 | 20.98 |
|                 |               | 1732.5          | 20.86                     | 21.22 | 21.00 |
|                 |               | 1710.7          | 20.82                     | 21.21 | 21.00 |
|                 | 1RB_Low       | 1754.3          | 20.78                     | 21.02 | 21.01 |
|                 |               | 1732.5          | 20.82                     | 21.13 | 20.98 |
|                 |               | 1710.7          | 20.83                     | 21.22 | 21.08 |
|                 | 3RB_High      | 1754.3          | 20.78                     | 20.75 | 20.92 |
|                 |               | 1732.5          | 20.85                     | 20.78 | 20.95 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       | 3RB_Middle  | 1710.7 | 20.88 | 20.90 | 20.93 |
|       |             | 1754.3 | 20.76 | 20.84 | 20.88 |
|       |             | 1732.5 | 20.89 | 20.88 | 21.01 |
|       | 3RB_Low     | 1710.7 | 20.87 | 20.77 | 20.99 |
|       |             | 1754.3 | 20.80 | 20.81 | 20.85 |
|       |             | 1732.5 | 20.84 | 20.85 | 20.92 |
|       | 6RB         | 1710.7 | 20.84 | 20.81 | 20.95 |
|       |             | 1754.3 | 20.81 | 20.95 | 20.73 |
|       |             | 1732.5 | 20.84 | 20.96 | 20.85 |
|       |             | 1710.7 | 20.85 | 20.98 | 20.85 |
| 3 MHz | 1RB_High    | 1753.5 | 20.81 | 21.03 | 20.97 |
|       |             | 1732.5 | 20.82 | 21.11 | 21.05 |
|       |             | 1711.5 | 20.88 | 21.03 | 21.03 |
|       | 1RB_Middle  | 1753.5 | 20.78 | 20.99 | 21.03 |
|       |             | 1732.5 | 20.86 | 21.23 | 21.03 |
|       |             | 1711.5 | 20.87 | 21.20 | 21.07 |
|       | 1RB_Low     | 1753.5 | 20.78 | 21.03 | 21.00 |
|       |             | 1732.5 | 20.84 | 21.06 | 21.05 |
|       |             | 1711.5 | 20.83 | 21.03 | 21.04 |
|       | 8RB_High    | 1753.5 | 20.78 | 20.83 | 20.85 |
|       |             | 1732.5 | 20.80 | 20.88 | 20.83 |
|       |             | 1711.5 | 20.82 | 20.95 | 20.90 |
|       | 8RB_Middle  | 1753.5 | 20.80 | 20.86 | 20.82 |
|       |             | 1732.5 | 20.83 | 20.85 | 20.82 |
|       |             | 1711.5 | 20.83 | 20.88 | 20.89 |
|       | 8RB_Low     | 1753.5 | 20.82 | 20.89 | 20.88 |
|       |             | 1732.5 | 20.87 | 20.91 | 20.90 |
|       |             | 1711.5 | 20.88 | 20.89 | 20.87 |
|       | 15RB        | 1753.5 | 20.79 | 20.86 | 20.85 |
|       |             | 1732.5 | 20.83 | 20.84 | 20.86 |
|       |             | 1711.5 | 20.85 | 20.90 | 20.90 |
| 5 MHz | 1RB_High    | 1752.5 | 20.83 | 21.17 | 21.08 |
|       |             | 1732.5 | 20.86 | 21.10 | 21.00 |
|       |             | 1712.5 | 20.90 | 21.11 | 21.07 |
|       | 1RB_Middle  | 1752.5 | 20.85 | 21.19 | 21.02 |
|       |             | 1732.5 | 20.84 | 21.19 | 21.02 |
|       |             | 1712.5 | 20.91 | 21.12 | 21.09 |
|       | 1RB_Low     | 1752.5 | 20.83 | 21.19 | 21.04 |
|       |             | 1732.5 | 20.90 | 21.24 | 21.08 |
|       |             | 1712.5 | 20.89 | 21.10 | 21.09 |
|       | 12RB_High   | 1752.5 | 20.77 | 20.79 | 20.83 |
|       |             | 1732.5 | 20.84 | 20.85 | 20.87 |
|       |             | 1712.5 | 20.87 | 20.81 | 20.89 |
|       | 12RB_Middle | 1752.5 | 20.83 | 20.87 | 20.88 |
|       |             | 1732.5 | 20.89 | 20.90 | 20.90 |
|       |             | 1712.5 | 20.85 | 20.89 | 20.90 |
|       | 12RB_Low    | 1752.5 | 20.87 | 20.85 | 20.87 |
|       |             | 1732.5 | 20.90 | 20.88 | 20.90 |
|       |             | 1712.5 | 20.90 | 20.90 | 20.94 |
|       | 25RB        | 1752.5 | 20.87 | 20.88 | 20.87 |
|       |             | 1732.5 | 20.88 | 20.88 | 20.89 |
|       |             | 1712.5 | 20.91 | 20.90 | 20.88 |
| 10MHz | 1RB_High    | 1750   | 20.81 | 21.06 | 20.95 |
|       |             | 1732.5 | 20.84 | 21.07 | 21.02 |
|       |             | 1715   | 20.95 | 21.30 | 21.03 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       | 1RB_Middle  | 1750   | 20.91 | 21.11 | 20.96 |
|       |             | 1732.5 | 20.89 | 21.20 | 21.02 |
|       |             | 1715   | 20.94 | 21.28 | 21.01 |
|       | 1RB_Low     | 1750   | 20.83 | 21.11 | 21.05 |
|       |             | 1732.5 | 20.91 | 21.20 | 21.02 |
|       |             | 1715   | 20.85 | 21.09 | 21.07 |
|       | 25RB_High   | 1750   | 20.84 | 20.87 | 20.86 |
|       |             | 1732.5 | 20.81 | 20.89 | 20.85 |
|       |             | 1715   | 20.94 | 21.00 | 20.95 |
|       | 25RB_Middle | 1750   | 20.88 | 20.90 | 20.95 |
|       |             | 1732.5 | 20.81 | 20.88 | 20.87 |
|       |             | 1715   | 20.94 | 20.91 | 20.92 |
|       | 25RB_Low    | 1750   | 20.88 | 20.95 | 20.93 |
|       |             | 1732.5 | 20.90 | 20.93 | 20.92 |
|       |             | 1715   | 20.83 | 20.83 | 20.89 |
|       | 50RB        | 1750   | 20.92 | 20.90 | 20.91 |
|       |             | 1732.5 | 20.87 | 20.88 | 20.85 |
|       |             | 1715   | 20.92 | 20.92 | 20.95 |
| 15MHz | 1RB_High    | 1747.5 | 20.76 | 21.05 | 20.96 |
|       |             | 1732.5 | 20.80 | 20.99 | 21.05 |
|       |             | 1717.5 | 20.78 | 21.11 | 20.95 |
|       | 1RB_Middle  | 1747.5 | 20.88 | 21.11 | 21.01 |
|       |             | 1732.5 | 20.86 | 21.09 | 21.01 |
|       |             | 1717.5 | 20.92 | 21.25 | 21.02 |
|       | 1RB_Low     | 1747.5 | 20.75 | 20.99 | 21.01 |
|       |             | 1732.5 | 20.87 | 21.16 | 21.04 |
|       |             | 1717.5 | 20.83 | 21.14 | 21.01 |
|       | 36RB_High   | 1747.5 | 20.85 | 20.87 | 20.91 |
|       |             | 1732.5 | 20.83 | 20.86 | 20.85 |
|       |             | 1717.5 | 20.87 | 20.87 | 20.89 |
|       | 36RB_Middle | 1747.5 | 20.84 | 20.84 | 20.84 |
|       |             | 1732.5 | 20.85 | 20.85 | 20.92 |
|       |             | 1717.5 | 20.94 | 20.95 | 20.96 |
|       | 36RB_Low    | 1747.5 | 20.86 | 20.86 | 20.84 |
|       |             | 1732.5 | 20.88 | 20.87 | 20.85 |
|       |             | 1717.5 | 20.91 | 20.90 | 20.91 |
|       | 75RB        | 1747.5 | 20.89 | 20.89 | 20.85 |
|       |             | 1732.5 | 20.89 | 20.86 | 20.82 |
|       |             | 1717.5 | 20.82 | 20.85 | 20.86 |
| 20MHz | 1RB_High    | 1745   | 20.84 | 21.03 | 20.96 |
|       |             | 1732.5 | 20.70 | 21.05 | 20.87 |
|       |             | 1720   | 20.71 | 20.99 | 20.87 |
|       | 1RB_Middle  | 1745   | 20.89 | 21.14 | 21.08 |
|       |             | 1732.5 | 20.79 | 21.18 | 21.01 |
|       |             | 1720   | 20.87 | 21.20 | 20.91 |
|       | 1RB_Low     | 1745   | 20.68 | 21.05 | 20.87 |
|       |             | 1732.5 | 20.80 | 21.07 | 20.92 |
|       |             | 1720   | 20.84 | 21.12 | 21.04 |
|       | 50RB_High   | 1745   | 20.88 | 20.90 | 20.93 |
|       |             | 1732.5 | 20.83 | 20.79 | 20.85 |
|       |             | 1720   | 20.78 | 20.82 | 20.74 |
|       | 50RB_Middle | 1745   | 20.90 | 20.86 | 20.89 |
|       |             | 1732.5 | 20.81 | 20.75 | 20.75 |
|       |             | 1720   | 20.85 | 20.81 | 20.90 |
|       | 50RB_Low    | 1745   | 20.81 | 20.82 | 20.84 |

|  |       |        |       |       |       |
|--|-------|--------|-------|-------|-------|
|  |       | 1732.5 | 20.79 | 20.75 | 20.73 |
|  |       | 1720   | 20.82 | 20.84 | 20.84 |
|  |       | 1745   | 20.89 | 20.80 | 20.85 |
|  | 100RB | 1732.5 | 20.78 | 20.75 | 20.76 |
|  |       | 1720   | 20.77 | 20.80 | 20.81 |

**LTE Band4(ANT31 DSI8/9/10)**

| Band 4          |                            |                 |                           |       |       |
|-----------------|----------------------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation<br>RB offset | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 |                            |                 | QPSK                      | 16QAM | 64QAM |
| 1.4 MHz         | 1RB_High                   | 1754.3          | 19.73                     | 20.03 | 19.86 |
|                 |                            | 1732.5          | 19.74                     | 20.06 | 19.86 |
|                 |                            | 1710.7          | 19.77                     | 20.04 | 19.91 |
|                 | 1RB_Middle                 | 1754.3          | 19.74                     | 20.06 | 19.84 |
|                 |                            | 1732.5          | 19.74                     | 19.97 | 20.01 |
|                 |                            | 1710.7          | 19.79                     | 20.12 | 19.91 |
|                 | 1RB_Low                    | 1754.3          | 19.68                     | 20.02 | 19.94 |
|                 |                            | 1732.5          | 19.76                     | 20.13 | 20.01 |
|                 |                            | 1710.7          | 19.77                     | 20.13 | 19.97 |
|                 | 3RB_High                   | 1754.3          | 19.73                     | 19.71 | 19.78 |
|                 |                            | 1732.5          | 19.77                     | 19.81 | 19.89 |
|                 |                            | 1710.7          | 19.79                     | 19.83 | 19.89 |
|                 | 3RB_Middle                 | 1754.3          | 19.72                     | 19.68 | 19.86 |
|                 |                            | 1732.5          | 19.76                     | 19.79 | 19.84 |
|                 |                            | 1710.7          | 19.81                     | 19.75 | 19.85 |
|                 | 3RB_Low                    | 1754.3          | 19.71                     | 19.72 | 19.88 |
|                 |                            | 1732.5          | 19.81                     | 19.72 | 19.87 |
|                 |                            | 1710.7          | 19.79                     | 19.80 | 19.93 |
|                 | 6RB                        | 1754.3          | 19.73                     | 19.84 | 19.66 |
|                 |                            | 1732.5          | 19.79                     | 19.89 | 19.76 |
|                 |                            | 1710.7          | 19.79                     | 19.90 | 19.82 |
| 3 MHz           | 1RB_High                   | 1753.5          | 19.71                     | 19.98 | 19.93 |
|                 |                            | 1732.5          | 19.75                     | 20.07 | 19.96 |
|                 |                            | 1711.5          | 19.81                     | 20.10 | 20.03 |
|                 | 1RB_Middle                 | 1753.5          | 19.73                     | 20.05 | 19.89 |
|                 |                            | 1732.5          | 19.77                     | 20.10 | 19.95 |
|                 |                            | 1711.5          | 19.81                     | 19.99 | 19.91 |
|                 | 1RB_Low                    | 1753.5          | 19.72                     | 20.03 | 19.92 |
|                 |                            | 1732.5          | 19.76                     | 20.11 | 19.94 |
|                 |                            | 1711.5          | 19.77                     | 20.12 | 19.90 |
|                 | 8RB_High                   | 1753.5          | 19.72                     | 19.81 | 19.78 |
|                 |                            | 1732.5          | 19.76                     | 19.84 | 19.79 |
|                 |                            | 1711.5          | 19.77                     | 19.89 | 19.83 |
|                 | 8RB_Middle                 | 1753.5          | 19.75                     | 19.81 | 19.83 |
|                 |                            | 1732.5          | 19.74                     | 19.83 | 19.77 |
|                 |                            | 1711.5          | 19.79                     | 19.84 | 19.82 |
|                 | 8RB_Low                    | 1753.5          | 19.77                     | 19.83 | 19.80 |
|                 |                            | 1732.5          | 19.79                     | 19.87 | 19.82 |
|                 |                            | 1711.5          | 19.79                     | 19.87 | 19.84 |
|                 | 15RB                       | 1753.5          | 19.74                     | 19.81 | 19.80 |
|                 |                            | 1732.5          | 19.75                     | 19.78 | 19.76 |
|                 |                            | 1711.5          | 19.80                     | 19.82 | 19.80 |
| 5 MHz           | 1RB_High                   | 1752.5          | 19.75                     | 20.07 | 19.93 |
|                 |                            | 1732.5          | 19.80                     | 19.98 | 19.99 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       | 1RB_Middle  | 1712.5 | 19.84 | 20.07 | 19.97 |
|       |             | 1752.5 | 19.74 | 20.09 | 19.92 |
|       |             | 1732.5 | 19.78 | 20.17 | 20.07 |
|       | 1RB_Low     | 1712.5 | 19.83 | 20.18 | 19.99 |
|       |             | 1752.5 | 19.75 | 19.99 | 19.97 |
|       |             | 1732.5 | 19.83 | 20.02 | 20.02 |
|       | 12RB_High   | 1712.5 | 19.81 | 20.16 | 20.00 |
|       |             | 1752.5 | 19.75 | 19.74 | 19.80 |
|       |             | 1732.5 | 19.78 | 19.73 | 19.80 |
|       | 12RB_Middle | 1712.5 | 19.76 | 19.83 | 19.79 |
|       |             | 1752.5 | 19.75 | 19.79 | 19.76 |
|       |             | 1732.5 | 19.81 | 19.78 | 19.83 |
|       | 12RB_Low    | 1712.5 | 19.78 | 19.83 | 19.84 |
|       |             | 1752.5 | 19.83 | 19.78 | 19.83 |
|       |             | 1732.5 | 19.84 | 19.87 | 19.81 |
|       | 25RB        | 1712.5 | 19.83 | 19.77 | 19.82 |
|       |             | 1752.5 | 19.80 | 19.82 | 19.79 |
|       |             | 1732.5 | 19.78 | 19.83 | 19.82 |
| 10MHz | 1RB_High    | 1712.5 | 19.80 | 19.83 | 19.83 |
|       |             | 1752.5 | 19.80 | 19.82 | 19.79 |
|       |             | 1732.5 | 19.78 | 19.83 | 19.82 |
|       | 1RB_Middle  | 1750   | 19.74 | 19.95 | 19.94 |
|       |             | 1732.5 | 19.75 | 20.03 | 19.90 |
|       |             | 1715   | 19.88 | 20.23 | 20.09 |
|       | 1RB_Low     | 1750   | 19.80 | 20.09 | 19.91 |
|       |             | 1732.5 | 19.78 | 20.04 | 20.08 |
|       |             | 1715   | 19.89 | 20.17 | 19.98 |
|       | 25RB_High   | 1750   | 19.76 | 20.06 | 19.91 |
|       |             | 1732.5 | 19.80 | 20.01 | 19.94 |
|       |             | 1715   | 19.77 | 20.10 | 19.90 |
|       | 25RB_Middle | 1750   | 19.78 | 19.82 | 19.74 |
|       |             | 1732.5 | 19.79 | 19.80 | 19.82 |
|       |             | 1715   | 19.90 | 19.92 | 19.93 |
|       | 25RB_Low    | 1750   | 19.81 | 19.87 | 19.85 |
|       |             | 1732.5 | 19.79 | 19.83 | 19.84 |
|       |             | 1715   | 19.86 | 19.89 | 19.88 |
| 15MHz | 36RB_High   | 1750   | 19.84 | 19.84 | 19.83 |
|       |             | 1732.5 | 19.84 | 19.82 | 19.88 |
|       |             | 1715   | 19.79 | 19.83 | 19.81 |
|       | 36RB_Middle | 1750   | 19.83 | 19.82 | 19.79 |
|       |             | 1732.5 | 19.84 | 19.84 | 19.79 |
|       |             | 1715   | 19.86 | 19.87 | 19.86 |
|       | 36RB_Low    | 1750   | 19.67 | 19.99 | 19.86 |
|       |             | 1732.5 | 19.67 | 19.99 | 19.90 |
|       |             | 1717.5 | 19.73 | 19.99 | 19.86 |
|       | 50RB        | 1747.5 | 19.77 | 20.09 | 19.98 |
|       |             | 1732.5 | 19.77 | 20.08 | 20.03 |
|       |             | 1717.5 | 19.81 | 20.07 | 20.02 |
|       | 1RB_High    | 1747.5 | 19.67 | 19.93 | 19.82 |
|       |             | 1732.5 | 19.82 | 20.17 | 19.94 |
|       |             | 1717.5 | 19.73 | 19.96 | 19.97 |
|       | 1RB_Middle  | 1747.5 | 19.72 | 19.81 | 19.79 |
|       |             | 1732.5 | 19.74 | 19.77 | 19.79 |
|       |             | 1717.5 | 19.78 | 19.82 | 19.84 |
|       | 1RB_Low     | 1747.5 | 19.78 | 19.81 | 19.84 |
|       |             | 1732.5 | 19.80 | 19.81 | 19.81 |
|       |             | 1717.5 | 19.81 | 19.86 | 19.87 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
| 20MHz | 36RB_Low    | 1747.5 | 19.77 | 19.83 | 19.86 |
|       |             | 1732.5 | 19.73 | 19.76 | 19.77 |
|       |             | 1717.5 | 19.73 | 19.77 | 19.80 |
|       | 75RB        | 1747.5 | 19.78 | 19.78 | 19.76 |
|       |             | 1732.5 | 19.73 | 19.79 | 19.80 |
|       |             | 1717.5 | 19.81 | 19.82 | 19.79 |
|       | 1RB_High    | 1745   | 19.81 | 20.13 | 19.94 |
|       |             | 1732.5 | 19.67 | 20.01 | 19.87 |
|       |             | 1720   | 19.71 | 20.06 | 19.93 |
|       | 1RB_Middle  | 1745   | 19.86 | 20.13 | 19.96 |
|       |             | 1732.5 | 19.73 | 20.03 | 19.88 |
|       |             | 1720   | 19.80 | 20.06 | 20.02 |
|       | 1RB_Low     | 1745   | 19.59 | 19.90 | 19.85 |
|       |             | 1732.5 | 19.79 | 20.02 | 19.91 |
|       |             | 1720   | 19.85 | 20.11 | 20.02 |
|       | 50RB_High   | 1745   | 19.88 | 19.88 | 19.81 |
|       |             | 1732.5 | 19.81 | 19.75 | 19.79 |
|       |             | 1720   | 19.78 | 19.79 | 19.74 |
|       | 50RB_Middle | 1745   | 19.86 | 19.87 | 19.86 |
|       |             | 1732.5 | 19.76 | 19.77 | 19.79 |
|       |             | 1720   | 19.82 | 19.87 | 19.86 |
|       | 50RB_Low    | 1745   | 19.83 | 19.83 | 19.83 |
|       |             | 1732.5 | 19.72 | 19.77 | 19.74 |
|       |             | 1720   | 19.80 | 19.79 | 19.81 |
|       | 100RB       | 1745   | 19.83 | 19.81 | 19.82 |
|       |             | 1732.5 | 19.77 | 19.72 | 19.70 |
|       |             | 1720   | 19.81 | 19.73 | 19.74 |

### LTE Band5(ANT13 DSI2/3)

| Band 5          |                            |                 |                           |       |       |
|-----------------|----------------------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation<br>RB offset | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 |                            |                 | QPSK                      | 16QAM | 64QAM |
| 1.4MHz          | 1RB-High                   | 848.3           | 18.73                     | 19.04 | 18.97 |
|                 |                            | 836.5           | 18.87                     | 19.10 | 19.06 |
|                 |                            | 824.7           | 18.85                     | 19.14 | 19.08 |
|                 | 1RB-Middle                 | 848.3           | 18.72                     | 19.08 | 18.90 |
|                 |                            | 836.5           | 18.85                     | 19.22 | 19.08 |
|                 |                            | 824.7           | 18.81                     | 19.19 | 19.01 |
|                 | 1RB-Low                    | 848.3           | 18.73                     | 19.03 | 18.98 |
|                 |                            | 836.5           | 18.81                     | 19.16 | 19.06 |
|                 |                            | 824.7           | 18.82                     | 19.17 | 19.01 |
|                 | 3RB-High                   | 848.3           | 18.74                     | 18.78 | 18.92 |
|                 |                            | 836.5           | 18.84                     | 18.85 | 18.98 |
|                 |                            | 824.7           | 18.86                     | 18.89 | 18.94 |
|                 | 3RB-Middle                 | 848.3           | 18.78                     | 18.81 | 18.86 |
|                 |                            | 836.5           | 18.87                     | 18.87 | 18.94 |
|                 |                            | 824.7           | 18.85                     | 18.83 | 18.98 |
|                 | 3RB-Low                    | 848.3           | 18.78                     | 18.81 | 18.90 |
|                 |                            | 836.5           | 18.84                     | 18.84 | 18.95 |
|                 |                            | 824.7           | 18.85                     | 18.86 | 18.96 |
|                 | 6RB                        | 848.3           | 18.77                     | 18.88 | 18.73 |
|                 |                            | 836.5           | 18.88                     | 18.98 | 18.90 |
|                 |                            | 824.7           | 18.86                     | 18.94 | 18.81 |
|                 |                            | 847.5           | 18.70                     | 19.07 | 18.94 |

|       |             |       |       |       |       |
|-------|-------------|-------|-------|-------|-------|
|       |             | 836.5 | 18.81 | 19.19 | 18.99 |
|       |             | 825.5 | 18.82 | 19.14 | 19.06 |
|       |             | 847.5 | 18.71 | 19.12 | 19.02 |
|       | 1RB-Middle  | 836.5 | 18.83 | 19.23 | 19.03 |
|       |             | 825.5 | 18.88 | 19.12 | 19.01 |
|       |             | 847.5 | 18.80 | 19.18 | 19.00 |
|       | 1RB-Low     | 836.5 | 18.77 | 19.11 | 18.99 |
|       |             | 825.5 | 18.86 | 19.08 | 19.05 |
|       |             | 847.5 | 18.71 | 18.89 | 18.85 |
|       | 8RB-High    | 836.5 | 18.76 | 18.93 | 18.87 |
|       |             | 825.5 | 18.86 | 18.96 | 18.93 |
|       |             | 847.5 | 18.70 | 18.86 | 18.83 |
|       | 8RB-Middle  | 836.5 | 18.79 | 18.96 | 18.93 |
|       |             | 825.5 | 18.85 | 18.92 | 18.89 |
|       |             | 847.5 | 18.77 | 18.87 | 18.86 |
|       | 8RB-Low     | 836.5 | 18.82 | 18.93 | 18.92 |
|       |             | 825.5 | 18.81 | 18.94 | 18.88 |
|       |             | 847.5 | 18.77 | 18.84 | 18.87 |
|       | 15RB        | 836.5 | 18.83 | 18.89 | 18.80 |
|       |             | 825.5 | 18.83 | 18.90 | 18.85 |
| 5MHz  | 1RB-High    | 846.5 | 18.81 | 19.09 | 18.96 |
|       |             | 836.5 | 18.89 | 19.23 | 18.98 |
|       |             | 826.5 | 18.92 | 19.18 | 19.09 |
|       | 1RB-Middle  | 846.5 | 18.86 | 19.22 | 19.11 |
|       |             | 836.5 | 18.87 | 19.09 | 19.17 |
|       |             | 826.5 | 18.93 | 19.21 | 19.03 |
|       | 1RB-Low     | 846.5 | 18.87 | 19.18 | 19.07 |
|       |             | 836.5 | 18.86 | 19.27 | 19.09 |
|       |             | 826.5 | 18.93 | 19.25 | 19.09 |
|       | 12RB-High   | 846.5 | 18.84 | 18.82 | 18.85 |
|       |             | 836.5 | 18.86 | 18.86 | 18.87 |
|       |             | 826.5 | 18.84 | 18.84 | 18.88 |
|       | 12RB-Middle | 846.5 | 18.81 | 18.83 | 18.84 |
|       |             | 836.5 | 18.85 | 18.83 | 18.86 |
|       |             | 826.5 | 18.90 | 18.88 | 18.90 |
|       | 12RB-Low    | 846.5 | 18.93 | 18.89 | 18.89 |
|       |             | 836.5 | 18.83 | 18.87 | 18.90 |
|       |             | 826.5 | 18.91 | 18.87 | 18.93 |
|       | 25RB        | 846.5 | 18.86 | 18.88 | 18.85 |
|       |             | 836.5 | 18.85 | 18.84 | 18.83 |
|       |             | 826.5 | 18.92 | 18.87 | 18.85 |
| 10MHz | 1RB-High    | 844   | 18.78 | 19.14 | 18.88 |
|       |             | 836.5 | 18.82 | 19.17 | 18.97 |
|       |             | 829   | 18.86 | 19.14 | 19.04 |
|       | 1RB-Middle  | 844   | 18.90 | 19.22 | 19.04 |
|       |             | 836.5 | 18.87 | 19.13 | 19.12 |
|       |             | 829   | 18.96 | 19.31 | 19.14 |
|       | 1RB-Low     | 844   | 18.85 | 19.11 | 19.07 |
|       |             | 836.5 | 18.88 | 19.14 | 18.99 |
|       |             | 829   | 18.87 | 19.17 | 19.07 |
|       | 25RB-High   | 844   | 18.80 | 18.84 | 18.84 |
|       |             | 836.5 | 18.86 | 18.90 | 18.90 |
|       |             | 829   | 18.92 | 18.94 | 18.91 |
|       | 25RB-Middle | 844   | 18.91 | 18.90 | 18.94 |
|       |             | 836.5 | 18.85 | 18.88 | 18.87 |

|  |          |       |       |       |       |
|--|----------|-------|-------|-------|-------|
|  | 25RB-Low | 829   | 18.97 | 18.96 | 18.96 |
|  |          | 844   | 19.01 | 19.02 | 19.00 |
|  |          | 836.5 | 18.81 | 18.82 | 18.87 |
|  |          | 829   | 19.02 | 19.08 | 19.06 |
|  | 50RB     | 844   | 18.91 | 18.95 | 18.92 |
|  |          | 836.5 | 18.90 | 18.88 | 18.87 |
|  |          | 829   | 18.99 | 18.97 | 18.98 |

#### LTE Band5(ANT13 DSI4/10)

| Band 5          |               |                 |                           |       |       |
|-----------------|---------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 | RB offset     |                 | QPSK                      | 16QAM | 64QAM |
| 1.4MHz          | 1RB-High      | 848.3           | 23.15                     | 22.31 | 21.50 |
|                 |               | 836.5           | 23.30                     | 22.51 | 21.58 |
|                 |               | 824.7           | 23.28                     | 22.49 | 21.56 |
|                 | 1RB-Middle    | 848.3           | 23.10                     | 22.41 | 21.39 |
|                 |               | 836.5           | 23.27                     | 22.56 | 21.58 |
|                 |               | 824.7           | 23.25                     | 22.39 | 21.57 |
|                 | 1RB-Low       | 848.3           | 23.14                     | 22.30 | 21.35 |
|                 |               | 836.5           | 23.30                     | 22.53 | 21.53 |
|                 |               | 824.7           | 23.30                     | 22.46 | 21.50 |
|                 | 3RB-High      | 848.3           | 23.12                     | 22.17 | 21.37 |
|                 |               | 836.5           | 23.30                     | 22.22 | 21.46 |
|                 |               | 824.7           | 23.27                     | 22.22 | 21.42 |
|                 | 3RB-Middle    | 848.3           | 23.17                     | 22.14 | 21.37 |
|                 |               | 836.5           | 23.31                     | 22.33 | 21.46 |
|                 |               | 824.7           | 23.28                     | 22.25 | 21.45 |
|                 | 3RB-Low       | 848.3           | 23.20                     | 22.22 | 21.41 |
|                 |               | 836.5           | 23.31                     | 22.27 | 21.43 |
|                 |               | 824.7           | 23.26                     | 22.31 | 21.48 |
|                 | 6RB           | 848.3           | 22.18                     | 21.35 | 20.27 |
|                 |               | 836.5           | 22.32                     | 21.52 | 20.39 |
|                 |               | 824.7           | 22.26                     | 21.47 | 20.32 |
| 3MHz            | 1RB-High      | 847.5           | 23.14                     | 22.37 | 21.44 |
|                 |               | 836.5           | 23.22                     | 22.42 | 21.50 |
|                 |               | 825.5           | 23.27                     | 22.39 | 21.54 |
|                 | 1RB-Middle    | 847.5           | 23.23                     | 22.30 | 21.40 |
|                 |               | 836.5           | 23.32                     | 22.59 | 21.61 |
|                 |               | 825.5           | 23.32                     | 22.44 | 21.59 |
|                 | 1RB-Low       | 847.5           | 23.23                     | 22.43 | 21.48 |
|                 |               | 836.5           | 23.29                     | 22.38 | 21.57 |
|                 |               | 825.5           | 23.26                     | 22.45 | 21.55 |
|                 | 8RB-High      | 847.5           | 22.14                     | 21.37 | 20.32 |
|                 |               | 836.5           | 22.23                     | 21.44 | 20.38 |
|                 |               | 825.5           | 22.24                     | 21.47 | 20.42 |
|                 | 8RB-Middle    | 847.5           | 22.15                     | 21.36 | 20.31 |
|                 |               | 836.5           | 22.24                     | 21.47 | 20.38 |
|                 |               | 825.5           | 22.22                     | 21.45 | 20.42 |
|                 | 8RB-Low       | 847.5           | 22.15                     | 21.39 | 20.32 |
|                 |               | 836.5           | 22.20                     | 21.46 | 20.38 |
|                 |               | 825.5           | 22.26                     | 21.43 | 20.43 |
|                 | 15RB          | 847.5           | 22.18                     | 21.39 | 20.33 |
|                 |               | 836.5           | 22.22                     | 21.41 | 20.32 |
|                 |               | 825.5           | 22.24                     | 21.43 | 20.36 |

|       |             |       |       |       |       |
|-------|-------------|-------|-------|-------|-------|
| 5MHz  | 1RB-High    | 846.5 | 23.18 | 22.35 | 21.48 |
|       |             | 836.5 | 23.29 | 22.46 | 21.53 |
|       |             | 826.5 | 23.34 | 22.44 | 21.64 |
|       | 1RB-Middle  | 846.5 | 23.22 | 22.51 | 21.49 |
|       |             | 836.5 | 23.41 | 22.52 | 21.59 |
|       |             | 826.5 | 23.28 | 22.55 | 21.60 |
|       | 1RB-Low     | 846.5 | 23.28 | 22.38 | 21.56 |
|       |             | 836.5 | 23.30 | 22.45 | 21.51 |
|       |             | 826.5 | 23.27 | 22.44 | 21.53 |
|       | 12RB-High   | 846.5 | 22.19 | 21.34 | 20.38 |
|       |             | 836.5 | 22.22 | 21.38 | 20.44 |
|       |             | 826.5 | 22.22 | 21.38 | 20.39 |
|       | 12RB-Middle | 846.5 | 22.21 | 21.35 | 20.40 |
|       |             | 836.5 | 22.26 | 21.37 | 20.39 |
|       |             | 826.5 | 22.27 | 21.41 | 20.45 |
|       | 12RB-Low    | 846.5 | 22.25 | 21.37 | 20.43 |
|       |             | 836.5 | 22.24 | 21.35 | 20.42 |
|       |             | 826.5 | 22.27 | 21.42 | 20.43 |
|       | 25RB        | 846.5 | 22.20 | 21.42 | 20.39 |
|       |             | 836.5 | 22.22 | 21.37 | 20.33 |
|       |             | 826.5 | 22.27 | 21.45 | 20.43 |
| 10MHz | 1RB-High    | 844   | 23.26 | 22.41 | 21.46 |
|       |             | 836.5 | 23.34 | 22.48 | 21.50 |
|       |             | 829   | 23.35 | 22.48 | 21.51 |
|       | 1RB-Middle  | 844   | 23.42 | 22.60 | 21.58 |
|       |             | 836.5 | 23.40 | 22.56 | 21.59 |
|       |             | 829   | 23.43 | 22.50 | 21.64 |
|       | 1RB-Low     | 844   | 23.37 | 22.48 | 21.57 |
|       |             | 836.5 | 23.37 | 22.45 | 21.61 |
|       |             | 829   | 23.37 | 22.47 | 21.60 |
|       | 25RB-High   | 844   | 22.26 | 21.42 | 20.38 |
|       |             | 836.5 | 22.32 | 21.48 | 20.43 |
|       |             | 829   | 22.42 | 21.55 | 20.53 |
|       | 25RB-Middle | 844   | 22.33 | 21.49 | 20.47 |
|       |             | 836.5 | 22.30 | 21.47 | 20.48 |
|       |             | 829   | 22.42 | 21.57 | 20.53 |
|       | 25RB-Low    | 844   | 22.40 | 21.59 | 20.57 |
|       |             | 836.5 | 22.29 | 21.43 | 20.43 |
|       |             | 829   | 22.48 | 21.64 | 20.57 |
|       | 50RB        | 844   | 22.37 | 21.50 | 20.48 |
|       |             | 836.5 | 22.34 | 21.44 | 20.45 |
|       |             | 829   | 22.41 | 21.58 | 20.56 |

#### LTE Band5(ANT41 DSI2/3/4/10)

| Band 5          |               |                 |                           |       |       |
|-----------------|---------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 | RB offset     |                 | QPSK                      | 16QAM | 64QAM |
| 1.4MHz          | 1RB-High      | 848.3           | 23.18                     | 22.36 | 21.53 |
|                 |               | 836.5           | 23.28                     | 22.51 | 21.56 |
|                 |               | 824.7           | 23.24                     | 22.45 | 21.55 |
|                 | 1RB-Middle    | 848.3           | 23.25                     | 22.33 | 21.46 |
|                 |               | 836.5           | 23.31                     | 22.57 | 21.49 |
|                 |               | 824.7           | 23.22                     | 22.41 | 21.51 |
|                 | 1RB-Low       | 848.3           | 23.22                     | 22.40 | 21.52 |
|                 |               | 836.5           | 23.29                     | 22.44 | 21.56 |
|                 |               |                 |                           |       |       |

|      |             |       |       |       |       |
|------|-------------|-------|-------|-------|-------|
|      | 3RB-High    | 824.7 | 23.22 | 22.37 | 21.50 |
|      |             | 848.3 | 23.17 | 22.15 | 21.37 |
|      |             | 836.5 | 23.29 | 22.26 | 21.47 |
|      | 3RB-Middle  | 824.7 | 23.22 | 22.22 | 21.40 |
|      |             | 848.3 | 23.23 | 22.23 | 21.38 |
|      |             | 836.5 | 23.30 | 22.25 | 21.50 |
|      | 3RB-Low     | 824.7 | 23.22 | 22.24 | 21.42 |
|      |             | 848.3 | 23.18 | 22.15 | 21.43 |
|      |             | 836.5 | 23.26 | 22.37 | 21.48 |
|      | 6RB         | 824.7 | 23.23 | 22.16 | 21.44 |
|      |             | 848.3 | 22.22 | 21.38 | 20.22 |
|      |             | 836.5 | 22.32 | 21.53 | 20.41 |
| 3MHz | 1RB-High    | 824.7 | 22.21 | 21.42 | 20.35 |
|      |             | 847.5 | 23.19 | 22.30 | 21.51 |
|      |             | 836.5 | 23.22 | 22.47 | 21.54 |
|      | 1RB-Middle  | 825.5 | 23.20 | 22.44 | 21.46 |
|      |             | 847.5 | 23.24 | 22.41 | 21.51 |
|      |             | 836.5 | 23.34 | 22.52 | 21.63 |
|      | 1RB-Low     | 825.5 | 23.23 | 22.56 | 21.54 |
|      |             | 847.5 | 23.23 | 22.52 | 21.61 |
|      |             | 836.5 | 23.28 | 22.52 | 21.55 |
|      | 8RB-High    | 825.5 | 23.22 | 22.39 | 21.51 |
|      |             | 847.5 | 22.19 | 21.39 | 20.39 |
|      |             | 836.5 | 22.21 | 21.47 | 20.40 |
|      | 8RB-Middle  | 825.5 | 22.22 | 21.44 | 20.40 |
|      |             | 847.5 | 22.19 | 21.43 | 20.32 |
|      |             | 836.5 | 22.24 | 21.46 | 20.40 |
|      | 8RB-Low     | 825.5 | 22.20 | 21.43 | 20.39 |
|      |             | 847.5 | 22.24 | 21.47 | 20.36 |
|      |             | 836.5 | 22.25 | 21.45 | 20.41 |
|      | 15RB        | 825.5 | 22.19 | 21.40 | 20.40 |
|      |             | 847.5 | 22.22 | 21.42 | 20.32 |
|      |             | 836.5 | 22.18 | 21.40 | 20.38 |
| 5MHz | 1RB-High    | 825.5 | 22.20 | 21.41 | 20.36 |
|      |             | 846.5 | 23.23 | 22.41 | 21.46 |
|      |             | 836.5 | 23.31 | 22.56 | 21.55 |
|      | 1RB-Middle  | 826.5 | 23.32 | 22.46 | 21.56 |
|      |             | 846.5 | 23.32 | 22.56 | 21.59 |
|      |             | 836.5 | 23.34 | 22.56 | 21.65 |
|      | 1RB-Low     | 826.5 | 23.24 | 22.52 | 21.55 |
|      |             | 846.5 | 23.30 | 22.41 | 21.62 |
|      |             | 836.5 | 23.32 | 22.49 | 21.55 |
|      | 12RB-High   | 826.5 | 23.23 | 22.52 | 21.48 |
|      |             | 846.5 | 22.18 | 21.34 | 20.36 |
|      |             | 836.5 | 22.26 | 21.40 | 20.40 |
|      | 12RB-Middle | 826.5 | 22.19 | 21.36 | 20.36 |
|      |             | 846.5 | 22.25 | 21.37 | 20.42 |
|      |             | 836.5 | 22.20 | 21.39 | 20.38 |
|      | 12RB-Low    | 826.5 | 22.23 | 21.37 | 20.38 |
|      |             | 846.5 | 22.32 | 21.42 | 20.49 |
|      |             | 836.5 | 22.28 | 21.42 | 20.43 |
|      | 25RB        | 826.5 | 22.17 | 21.32 | 20.35 |
|      |             | 846.5 | 22.25 | 21.43 | 20.38 |
|      |             | 836.5 | 22.25 | 21.44 | 20.40 |
|      |             | 826.5 | 22.18 | 21.40 | 20.33 |

|       |             |       |       |       |       |
|-------|-------------|-------|-------|-------|-------|
| 10MHz | 1RB-High    | 844   | 23.25 | 22.43 | 21.47 |
|       |             | 836.5 | 23.24 | 22.38 | 21.46 |
|       |             | 829   | 23.26 | 22.40 | 21.46 |
|       | 1RB-Middle  | 844   | 23.33 | 22.47 | 21.55 |
|       |             | 836.5 | 23.29 | 22.49 | 21.53 |
|       |             | 829   | 23.37 | 22.54 | 21.56 |
|       | 1RB-Low     | 844   | 23.26 | 22.46 | 21.52 |
|       |             | 836.5 | 23.27 | 22.48 | 21.48 |
|       |             | 829   | 23.28 | 22.45 | 21.53 |
|       | 25RB-High   | 844   | 22.18 | 21.32 | 20.24 |
|       |             | 836.5 | 22.28 | 21.47 | 20.39 |
|       |             | 829   | 22.24 | 21.38 | 20.39 |
|       | 25RB-Middle | 844   | 22.25 | 21.39 | 20.36 |
|       |             | 836.5 | 22.24 | 21.41 | 20.40 |
|       |             | 829   | 22.31 | 21.47 | 20.46 |
|       | 25RB-Low    | 844   | 22.30 | 21.49 | 20.45 |
|       |             | 836.5 | 22.23 | 21.44 | 20.35 |
|       |             | 829   | 22.30 | 21.49 | 20.48 |
|       | 50RB        | 844   | 22.22 | 21.38 | 20.35 |
|       |             | 836.5 | 22.26 | 21.44 | 20.41 |
|       |             | 829   | 22.28 | 21.43 | 20.40 |

#### LTE Band7(ANT13 DSI2/3)

| Band 7          |                            |                 |                           |       |       |
|-----------------|----------------------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation<br>RB offset | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 |                            |                 | QPSK                      | 16QAM | 64QAM |
| 5MHz            | 1RB-High                   | 2567.5          | 15.08                     | 15.34 | 15.20 |
|                 |                            | 2535            | 15.17                     | 15.42 | 15.25 |
|                 |                            | 2502.5          | 14.84                     | 15.12 | 14.97 |
|                 | 1RB-Middle                 | 2567.5          | 15.11                     | 15.35 | 15.21 |
|                 |                            | 2535            | 15.17                     | 15.30 | 15.32 |
|                 |                            | 2502.5          | 14.84                     | 15.12 | 14.93 |
|                 | 1RB-Low                    | 2567.5          | 15.07                     | 15.34 | 15.20 |
|                 |                            | 2535            | 15.16                     | 15.46 | 15.29 |
|                 |                            | 2502.5          | 14.80                     | 15.10 | 14.94 |
|                 | 12RB-High                  | 2567.5          | 15.09                     | 15.10 | 15.12 |
|                 |                            | 2535            | 15.13                     | 15.10 | 15.13 |
|                 |                            | 2502.5          | 14.85                     | 14.88 | 14.92 |
|                 | 12RB-Middle                | 2567.5          | 15.05                     | 15.07 | 15.08 |
|                 |                            | 2535            | 15.10                     | 15.15 | 15.18 |
|                 |                            | 2502.5          | 14.80                     | 14.85 | 14.86 |
|                 | 12RB-Low                   | 2567.5          | 15.08                     | 15.10 | 15.14 |
|                 |                            | 2535            | 15.15                     | 15.16 | 15.22 |
|                 |                            | 2502.5          | 14.78                     | 14.84 | 14.87 |
|                 | 25RB                       | 2567.5          | 15.10                     | 15.11 | 15.10 |
|                 |                            | 2535            | 15.13                     | 15.20 | 15.16 |
|                 |                            | 2502.5          | 14.83                     | 14.84 | 14.83 |
| 10MHz           | 1RB-High                   | 2565            | 15.04                     | 15.23 | 15.20 |
|                 |                            | 2535            | 15.09                     | 15.25 | 15.20 |
|                 |                            | 2505            | 14.87                     | 15.11 | 15.03 |
|                 | 1RB-Middle                 | 2565            | 15.07                     | 15.32 | 15.23 |
|                 |                            | 2535            | 15.17                     | 15.38 | 15.33 |
|                 |                            | 2505            | 14.85                     | 15.17 | 14.97 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       | 1RB-Low     | 2565   | 15.08 | 15.38 | 15.26 |
|       |             | 2535   | 15.09 | 15.36 | 15.21 |
|       |             | 2505   | 14.78 | 14.96 | 14.89 |
|       | 25RB-High   | 2565   | 15.05 | 15.08 | 15.08 |
|       |             | 2535   | 15.14 | 15.18 | 15.15 |
|       |             | 2505   | 14.91 | 14.93 | 14.91 |
|       | 25RB-Middle | 2565   | 15.09 | 15.12 | 15.10 |
|       |             | 2535   | 15.14 | 15.17 | 15.14 |
|       |             | 2505   | 14.83 | 14.90 | 14.88 |
|       | 25RB-Low    | 2565   | 15.15 | 15.18 | 15.10 |
|       |             | 2535   | 15.11 | 15.17 | 15.13 |
|       |             | 2505   | 14.79 | 14.82 | 14.83 |
| 15MHz | 50RB        | 2565   | 15.11 | 15.08 | 15.09 |
|       |             | 2535   | 15.16 | 15.16 | 15.16 |
|       |             | 2505   | 14.85 | 14.87 | 14.90 |
|       | 1RB-High    | 2562.5 | 14.99 | 15.22 | 15.09 |
|       |             | 2535   | 15.05 | 15.22 | 15.19 |
|       |             | 2507.5 | 14.86 | 15.17 | 15.10 |
|       | 1RB-Middle  | 2562.5 | 15.09 | 15.25 | 15.14 |
|       |             | 2535   | 15.14 | 15.36 | 15.32 |
|       |             | 2507.5 | 14.82 | 15.12 | 14.92 |
|       | 1RB-Low     | 2562.5 | 15.00 | 15.22 | 15.17 |
|       |             | 2535   | 15.10 | 15.38 | 15.24 |
|       |             | 2507.5 | 14.71 | 14.93 | 14.84 |
|       | 36RB-High   | 2562.5 | 15.06 | 15.04 | 15.07 |
|       |             | 2535   | 15.11 | 15.15 | 15.14 |
|       |             | 2507.5 | 14.91 | 14.89 | 14.92 |
|       | 36RB-Middle | 2562.5 | 15.02 | 15.05 | 15.08 |
|       |             | 2535   | 15.05 | 15.15 | 15.16 |
|       |             | 2507.5 | 14.85 | 14.90 | 14.92 |
|       | 36RB-Low    | 2562.5 | 15.11 | 15.10 | 15.12 |
|       |             | 2535   | 15.08 | 15.12 | 15.18 |
|       |             | 2507.5 | 14.80 | 14.81 | 14.86 |
|       | 75RB        | 2562.5 | 15.08 | 15.09 | 15.12 |
|       |             | 2535   | 15.12 | 15.11 | 15.18 |
|       |             | 2507.5 | 14.86 | 14.86 | 14.87 |
| 20MHz | 1RB-High    | 2560   | 14.81 | 15.07 | 14.97 |
|       |             | 2535   | 14.72 | 14.94 | 14.84 |
|       |             | 2510   | 14.61 | 14.86 | 14.76 |
|       | 1RB-Middle  | 2560   | 14.86 | 15.11 | 15.04 |
|       |             | 2535   | 14.83 | 15.08 | 15.00 |
|       |             | 2510   | 14.66 | 14.81 | 14.81 |
|       | 1RB-Low     | 2560   | 14.84 | 15.04 | 14.93 |
|       |             | 2535   | 14.65 | 14.83 | 14.73 |
|       |             | 2510   | 14.54 | 14.69 | 14.66 |
|       | 50RB-High   | 2560   | 14.87 | 14.90 | 14.87 |
|       |             | 2535   | 14.79 | 14.79 | 14.80 |
|       |             | 2510   | 14.69 | 14.70 | 14.69 |
|       | 50RB-Middle | 2560   | 14.95 | 14.92 | 14.93 |
|       |             | 2535   | 14.84 | 14.83 | 14.83 |
|       |             | 2510   | 14.65 | 14.69 | 14.69 |
|       | 50RB-Low    | 2560   | 14.94 | 14.95 | 14.97 |
|       |             | 2535   | 14.81 | 14.81 | 14.84 |
|       |             | 2510   | 14.63 | 14.60 | 14.64 |
|       | 100RB       | 2560   | 14.90 | 14.89 | 14.90 |

|  |  |      |       |       |       |
|--|--|------|-------|-------|-------|
|  |  | 2535 | 14.81 | 14.77 | 14.77 |
|  |  | 2510 | 14.65 | 14.66 | 14.67 |

**LTE Band7(ANT13 DSI4)**

| Band 7          |                            |                 |                           |       |       |
|-----------------|----------------------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation<br>RB offset | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 |                            |                 | QPSK                      | 16QAM | 64QAM |
| 5MHz            | 1RB-High                   | 2567.5          | 22.79                     | 22.49 | 21.36 |
|                 |                            | 2535            | 22.86                     | 22.44 | 21.45 |
|                 |                            | 2502.5          | 22.64                     | 22.28 | 21.19 |
|                 | 1RB-Middle                 | 2567.5          | 22.82                     | 22.45 | 21.41 |
|                 |                            | 2535            | 22.86                     | 22.46 | 21.49 |
|                 |                            | 2502.5          | 22.56                     | 22.29 | 21.13 |
|                 | 1RB-Low                    | 2567.5          | 22.80                     | 22.45 | 21.36 |
|                 |                            | 2535            | 22.85                     | 22.49 | 21.46 |
|                 |                            | 2502.5          | 22.58                     | 22.16 | 21.17 |
|                 | 12RB-High                  | 2567.5          | 22.25                     | 21.27 | 20.25 |
|                 |                            | 2535            | 22.30                     | 21.25 | 20.31 |
|                 |                            | 2502.5          | 22.09                     | 21.02 | 20.03 |
|                 | 12RB-Middle                | 2567.5          | 22.30                     | 21.26 | 20.25 |
|                 |                            | 2535            | 22.30                     | 21.27 | 20.29 |
|                 |                            | 2502.5          | 22.05                     | 20.59 | 20.02 |
|                 | 12RB-Low                   | 2567.5          | 22.29                     | 21.31 | 20.27 |
|                 |                            | 2535            | 22.33                     | 21.28 | 20.30 |
|                 |                            | 2502.5          | 22.08                     | 21.01 | 20.03 |
|                 | 25RB                       | 2567.5          | 22.27                     | 21.27 | 20.27 |
|                 |                            | 2535            | 22.29                     | 21.31 | 20.27 |
|                 |                            | 2502.5          | 22.02                     | 21.08 | 20.00 |
| 10MHz           | 1RB-High                   | 2565            | 22.77                     | 22.44 | 21.36 |
|                 |                            | 2535            | 22.81                     | 22.47 | 21.39 |
|                 |                            | 2505            | 22.63                     | 22.39 | 21.26 |
|                 | 1RB-Middle                 | 2565            | 22.79                     | 22.49 | 21.45 |
|                 |                            | 2535            | 22.84                     | 22.47 | 21.43 |
|                 |                            | 2505            | 22.62                     | 22.32 | 21.20 |
|                 | 1RB-Low                    | 2565            | 22.83                     | 22.41 | 21.33 |
|                 |                            | 2535            | 22.81                     | 22.42 | 21.35 |
|                 |                            | 2505            | 22.54                     | 22.13 | 21.08 |
|                 | 25RB-High                  | 2565            | 22.30                     | 21.30 | 20.23 |
|                 |                            | 2535            | 22.34                     | 21.37 | 20.29 |
|                 |                            | 2505            | 22.09                     | 21.15 | 20.07 |
|                 | 25RB-Middle                | 2565            | 22.29                     | 21.30 | 20.26 |
|                 |                            | 2535            | 22.31                     | 21.32 | 20.30 |
|                 |                            | 2505            | 22.04                     | 21.07 | 20.01 |
|                 | 25RB-Low                   | 2565            | 22.34                     | 21.34 | 20.32 |
|                 |                            | 2535            | 22.31                     | 21.31 | 20.26 |
|                 |                            | 2505            | 21.98                     | 21.04 | 19.98 |
|                 | 50RB                       | 2565            | 22.29                     | 21.28 | 20.28 |
|                 |                            | 2535            | 22.32                     | 21.31 | 20.31 |
|                 |                            | 2505            | 22.07                     | 21.02 | 20.02 |
| 15MHz           | 1RB-High                   | 2562.5          | 22.69                     | 22.44 | 21.20 |
|                 |                            | 2535            | 22.76                     | 22.41 | 21.32 |
|                 |                            | 2507.5          | 22.61                     | 22.30 | 21.23 |
|                 | 1RB-Middle                 | 2562.5          | 22.81                     | 22.46 | 21.41 |
|                 |                            | 2535            | 22.84                     | 22.49 | 21.41 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       | 1RB-Low     | 2507.5 | 22.62 | 22.16 | 21.20 |
|       |             | 2562.5 | 22.75 | 22.39 | 21.30 |
|       |             | 2535   | 22.81 | 22.45 | 21.43 |
|       | 36RB-High   | 2507.5 | 22.02 | 22.14 | 21.05 |
|       |             | 2562.5 | 22.19 | 21.22 | 20.22 |
|       |             | 2535   | 22.27 | 21.30 | 20.29 |
|       | 36RB-Middle | 2507.5 | 21.65 | 21.11 | 20.12 |
|       |             | 2562.5 | 22.25 | 21.23 | 20.24 |
|       |             | 2535   | 22.31 | 21.30 | 20.32 |
|       | 36RB-Low    | 2507.5 | 22.07 | 21.01 | 20.05 |
|       |             | 2562.5 | 22.29 | 21.28 | 20.27 |
|       |             | 2535   | 22.30 | 21.24 | 20.21 |
|       | 75RB        | 2507.5 | 22.00 | 21.01 | 20.00 |
|       |             | 2562.5 | 22.26 | 21.23 | 20.25 |
|       |             | 2535   | 22.29 | 21.26 | 20.28 |
| 20MHz | 1RB-High    | 2507.5 | 22.11 | 21.02 | 20.01 |
|       |             | 2560   | 22.39 | 21.98 | 21.01 |
|       |             | 2535   | 22.29 | 22.02 | 20.90 |
|       | 1RB-Middle  | 2510   | 22.18 | 21.78 | 20.78 |
|       |             | 2560   | 22.49 | 22.21 | 21.03 |
|       |             | 2535   | 22.41 | 22.00 | 20.97 |
|       | 1RB-Low     | 2510   | 22.25 | 21.97 | 20.77 |
|       |             | 2560   | 22.38 | 22.05 | 20.89 |
|       |             | 2535   | 22.24 | 21.79 | 20.81 |
|       | 50RB-High   | 2510   | 22.10 | 21.78 | 20.67 |
|       |             | 2560   | 21.92 | 20.91 | 19.88 |
|       |             | 2535   | 21.80 | 20.78 | 19.78 |
|       | 50RB-Middle | 2510   | 21.73 | 20.67 | 19.70 |
|       |             | 2560   | 21.98 | 20.99 | 19.98 |
|       |             | 2535   | 21.84 | 20.84 | 19.83 |
|       | 50RB-Low    | 2510   | 21.74 | 20.72 | 19.66 |
|       |             | 2560   | 22.02 | 21.04 | 19.97 |
|       |             | 2535   | 21.83 | 20.81 | 19.79 |
|       | 100RB       | 2510   | 21.66 | 20.63 | 19.61 |
|       |             | 2560   | 21.96 | 20.97 | 19.94 |
|       |             | 2535   | 21.81 | 20.77 | 19.78 |
|       |             | 2510   | 21.66 | 20.66 | 19.65 |

### LTE Band7(ANT13 DSI8/9/10)

| Band 7          |               |                 |                           |       |       |
|-----------------|---------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 | RB offset     |                 | QPSK                      | 16QAM | 64QAM |
| 5MHz            | 1RB-High      | 2567.5          | 17.85                     | 18.10 | 17.93 |
|                 |               | 2535            | 17.92                     | 18.18 | 18.16 |
|                 |               | 2502.5          | 17.74                     | 18.00 | 17.80 |
|                 | 1RB-Middle    | 2567.5          | 17.84                     | 18.12 | 18.09 |
|                 |               | 2535            | 17.98                     | 18.26 | 18.15 |
|                 |               | 2502.5          | 17.71                     | 17.97 | 17.89 |
|                 | 1RB-Low       | 2567.5          | 17.83                     | 18.16 | 18.04 |
|                 |               | 2535            | 17.97                     | 18.11 | 18.09 |
|                 |               | 2502.5          | 17.63                     | 17.89 | 17.77 |
|                 | 12RB-High     | 2567.5          | 17.79                     | 17.84 | 17.85 |
|                 |               | 2535            | 17.91                     | 17.91 | 17.94 |
|                 |               | 2502.5          | 17.69                     | 17.72 | 17.77 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       | 12RB-Middle | 2567.5 | 17.84 | 17.84 | 17.86 |
|       |             | 2535   | 17.93 | 17.92 | 17.97 |
|       |             | 2502.5 | 17.62 | 17.66 | 17.71 |
|       | 12RB-Low    | 2567.5 | 17.84 | 17.86 | 17.91 |
|       |             | 2535   | 17.95 | 17.94 | 17.96 |
|       |             | 2502.5 | 17.67 | 17.69 | 17.69 |
|       | 25RB        | 2567.5 | 17.86 | 17.87 | 17.84 |
|       |             | 2535   | 17.96 | 17.98 | 17.96 |
|       |             | 2502.5 | 17.67 | 17.70 | 17.71 |
| 10MHz | 1RB-High    | 2565   | 17.82 | 18.02 | 18.03 |
|       |             | 2535   | 17.93 | 18.13 | 18.09 |
|       |             | 2505   | 17.73 | 18.00 | 17.83 |
|       | 1RB-Middle  | 2565   | 17.90 | 18.10 | 18.06 |
|       |             | 2535   | 17.98 | 18.18 | 18.17 |
|       |             | 2505   | 17.71 | 18.03 | 17.85 |
|       | 1RB-Low     | 2565   | 17.83 | 18.21 | 18.04 |
|       |             | 2535   | 17.90 | 18.26 | 17.99 |
|       |             | 2505   | 17.60 | 17.97 | 17.74 |
|       | 25RB-High   | 2565   | 17.83 | 17.87 | 17.89 |
|       |             | 2535   | 17.95 | 18.00 | 17.97 |
|       |             | 2505   | 17.74 | 17.76 | 17.75 |
|       | 25RB-Middle | 2565   | 17.85 | 17.90 | 17.88 |
|       |             | 2535   | 17.94 | 17.98 | 17.96 |
|       |             | 2505   | 17.70 | 17.70 | 17.67 |
|       | 25RB-Low    | 2565   | 17.93 | 17.99 | 17.97 |
|       |             | 2535   | 17.95 | 17.97 | 17.98 |
|       |             | 2505   | 17.65 | 17.65 | 17.64 |
|       | 50RB        | 2565   | 17.83 | 17.89 | 17.85 |
|       |             | 2535   | 17.91 | 17.97 | 17.97 |
|       |             | 2505   | 17.74 | 17.70 | 17.67 |
| 15MHz | 1RB-High    | 2562.5 | 17.78 | 18.10 | 17.86 |
|       |             | 2535   | 17.81 | 18.10 | 18.04 |
|       |             | 2507.5 | 17.70 | 17.94 | 17.86 |
|       | 1RB-Middle  | 2562.5 | 17.85 | 18.21 | 18.05 |
|       |             | 2535   | 17.95 | 18.17 | 18.11 |
|       |             | 2507.5 | 17.64 | 18.03 | 17.92 |
|       | 1RB-Low     | 2562.5 | 17.76 | 18.08 | 17.97 |
|       |             | 2535   | 17.91 | 18.19 | 18.12 |
|       |             | 2507.5 | 17.53 | 17.87 | 17.76 |
|       | 36RB-High   | 2562.5 | 17.79 | 17.81 | 17.84 |
|       |             | 2535   | 17.87 | 17.90 | 17.99 |
|       |             | 2507.5 | 17.70 | 17.76 | 17.72 |
|       | 36RB-Middle | 2562.5 | 17.82 | 17.84 | 17.88 |
|       |             | 2535   | 17.89 | 17.91 | 17.95 |
|       |             | 2507.5 | 17.66 | 17.68 | 17.71 |
|       | 36RB-Low    | 2562.5 | 17.90 | 17.90 | 17.91 |
|       |             | 2535   | 17.92 | 17.94 | 17.88 |
|       |             | 2507.5 | 17.63 | 17.61 | 17.69 |
|       | 75RB        | 2562.5 | 17.82 | 17.86 | 17.82 |
|       |             | 2535   | 17.92 | 17.97 | 17.92 |
|       |             | 2507.5 | 17.68 | 17.69 | 17.68 |
| 20MHz | 1RB-High    | 2560   | 17.36 | 17.62 | 17.61 |
|       |             | 2535   | 17.29 | 17.59 | 17.40 |
|       |             | 2510   | 17.19 | 17.49 | 17.34 |
|       | 1RB-Middle  | 2560   | 17.45 | 17.78 | 17.64 |

|  |             |      |       |       |       |
|--|-------------|------|-------|-------|-------|
|  | 1RB-Low     | 2535 | 17.41 | 17.69 | 17.46 |
|  |             | 2510 | 17.22 | 17.44 | 17.32 |
|  |             | 2560 | 17.37 | 17.72 | 17.52 |
|  | 50RB-High   | 2535 | 17.22 | 17.52 | 17.37 |
|  |             | 2510 | 17.09 | 17.43 | 17.28 |
|  |             | 2560 | 17.48 | 17.44 | 17.44 |
|  | 50RB-Middle | 2535 | 17.36 | 17.35 | 17.35 |
|  |             | 2510 | 17.25 | 17.28 | 17.27 |
|  |             | 2560 | 17.51 | 17.52 | 17.52 |
|  | 50RB-Low    | 2535 | 17.43 | 17.39 | 17.42 |
|  |             | 2510 | 17.22 | 17.23 | 17.23 |
|  |             | 2560 | 17.52 | 17.53 | 17.54 |
|  | 100RB       | 2535 | 17.40 | 17.34 | 17.38 |
|  |             | 2510 | 17.24 | 17.20 | 17.22 |
|  |             | 2560 | 17.47 | 17.47 | 17.51 |

### LTE Band7(ANT31 DSI2/3)

| Band 7          |               |                 |                           |       |       |
|-----------------|---------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 | RB offset     |                 | QPSK                      | 16QAM | 64QAM |
| 5MHz            | 1RB-High      | 2567.5          | 23.47                     | 22.62 | 21.60 |
|                 |               | 2535            | 23.20                     | 22.36 | 21.26 |
|                 |               | 2502.5          | 23.42                     | 22.54 | 21.43 |
|                 | 1RB-Middle    | 2567.5          | 23.49                     | 22.63 | 21.60 |
|                 |               | 2535            | 23.24                     | 22.39 | 21.30 |
|                 |               | 2502.5          | 23.45                     | 22.67 | 21.58 |
|                 | 1RB-Low       | 2567.5          | 23.46                     | 22.57 | 21.54 |
|                 |               | 2535            | 23.21                     | 22.40 | 21.27 |
|                 |               | 2502.5          | 23.44                     | 22.60 | 21.46 |
|                 | 12RB-High     | 2567.5          | 22.47                     | 21.43 | 20.38 |
|                 |               | 2535            | 22.10                     | 21.08 | 20.11 |
|                 |               | 2502.5          | 22.37                     | 21.36 | 20.33 |
|                 | 12RB-Middle   | 2567.5          | 22.44                     | 21.43 | 20.42 |
|                 |               | 2535            | 22.13                     | 21.11 | 20.12 |
|                 |               | 2502.5          | 22.40                     | 21.34 | 20.30 |
|                 | 12RB-Low      | 2567.5          | 22.48                     | 21.43 | 20.40 |
|                 |               | 2535            | 22.16                     | 21.13 | 20.15 |
|                 |               | 2502.5          | 22.41                     | 21.37 | 20.37 |
|                 | 25RB          | 2567.5          | 22.47                     | 21.49 | 20.39 |
|                 |               | 2535            | 22.16                     | 21.14 | 20.12 |
|                 |               | 2502.5          | 22.38                     | 21.39 | 20.32 |
| 10MHz           | 1RB-High      | 2565            | 23.46                     | 22.59 | 21.45 |
|                 |               | 2535            | 23.21                     | 22.43 | 21.28 |
|                 |               | 2505            | 23.32                     | 22.54 | 21.36 |
|                 | 1RB-Middle    | 2565            | 23.48                     | 22.65 | 21.53 |
|                 |               | 2535            | 23.24                     | 22.36 | 21.20 |
|                 |               | 2505            | 23.42                     | 22.53 | 21.54 |
|                 | 1RB-Low       | 2565            | 23.43                     | 22.62 | 21.48 |
|                 |               | 2535            | 23.15                     | 22.36 | 21.22 |
|                 |               | 2505            | 23.44                     | 22.54 | 21.50 |
|                 | 25RB-High     | 2565            | 22.44                     | 21.47 | 20.42 |
|                 |               | 2535            | 22.18                     | 21.16 | 20.13 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       | 25RB-Middle | 2505   | 22.32 | 21.33 | 20.27 |
|       |             | 2565   | 22.47 | 21.48 | 20.44 |
|       |             | 2535   | 22.14 | 21.16 | 20.12 |
|       | 25RB-Low    | 2505   | 22.33 | 21.34 | 20.30 |
|       |             | 2565   | 22.45 | 21.47 | 20.43 |
|       |             | 2535   | 22.13 | 21.14 | 20.11 |
|       | 50RB        | 2505   | 22.33 | 21.35 | 20.28 |
|       |             | 2565   | 22.45 | 21.39 | 20.40 |
|       |             | 2535   | 22.18 | 21.18 | 20.12 |
|       | 1RB-High    | 2505   | 22.38 | 21.35 | 20.29 |
|       |             | 2562.5 | 23.41 | 22.64 | 21.46 |
|       |             | 2535   | 23.17 | 22.39 | 21.22 |
| 15MHz | 1RB-Middle  | 2507.5 | 23.19 | 22.39 | 21.29 |
|       |             | 2562.5 | 23.44 | 22.70 | 21.47 |
|       |             | 2535   | 23.20 | 22.37 | 21.28 |
|       | 1RB-Low     | 2507.5 | 23.32 | 22.54 | 21.40 |
|       |             | 2562.5 | 23.28 | 22.46 | 21.33 |
|       |             | 2535   | 23.19 | 22.21 | 21.24 |
|       | 36RB-High   | 2507.5 | 23.34 | 22.42 | 21.41 |
|       |             | 2562.5 | 22.37 | 21.38 | 20.34 |
|       |             | 2535   | 22.13 | 21.13 | 20.14 |
|       | 36RB-Middle | 2507.5 | 22.24 | 21.27 | 20.24 |
|       |             | 2562.5 | 22.39 | 21.38 | 20.37 |
|       |             | 2535   | 22.14 | 21.14 | 20.08 |
|       | 36RB-Low    | 2507.5 | 22.26 | 21.25 | 20.27 |
|       |             | 2562.5 | 22.38 | 21.38 | 20.37 |
|       |             | 2535   | 22.15 | 21.11 | 20.11 |
|       | 75RB        | 2507.5 | 22.27 | 21.29 | 20.32 |
|       |             | 2562.5 | 22.34 | 21.39 | 20.37 |
|       |             | 2535   | 22.11 | 21.13 | 20.15 |
| 20MHz | 1RB-High    | 2507.5 | 22.31 | 21.24 | 20.26 |
|       |             | 2560   | 23.17 | 22.33 | 21.22 |
|       |             | 2535   | 23.00 | 22.27 | 21.09 |
|       | 1RB-Middle  | 2510   | 22.95 | 22.10 | 20.97 |
|       |             | 2560   | 23.21 | 22.42 | 21.31 |
|       |             | 2535   | 23.05 | 22.20 | 21.13 |
|       | 1RB-Low     | 2510   | 23.14 | 22.33 | 21.21 |
|       |             | 2560   | 23.16 | 22.19 | 21.16 |
|       |             | 2535   | 22.91 | 21.98 | 20.98 |
|       | 50RB-High   | 2510   | 23.09 | 22.20 | 21.15 |
|       |             | 2560   | 22.19 | 21.20 | 20.14 |
|       |             | 2535   | 21.98 | 20.97 | 19.92 |
|       | 50RB-Middle | 2510   | 22.08 | 21.02 | 20.03 |
|       |             | 2560   | 22.19 | 21.22 | 20.20 |
|       |             | 2535   | 22.07 | 21.01 | 20.05 |
|       | 50RB-Low    | 2510   | 22.12 | 21.06 | 20.02 |
|       |             | 2560   | 22.25 | 21.26 | 20.21 |
|       |             | 2535   | 22.02 | 21.02 | 19.99 |
|       | 100RB       | 2510   | 22.11 | 21.10 | 20.05 |
|       |             | 2560   | 22.21 | 21.19 | 20.15 |
|       |             | 2535   | 21.98 | 20.99 | 19.95 |
|       |             | 2510   | 22.08 | 21.03 | 20.02 |

**LTE Band7(ANT31 DSI4)**

| Band 7          |               |                 |                           |       |       |
|-----------------|---------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 | RB offset     |                 | QPSK                      | 16QAM | 64QAM |
| 5MHz            | 1RB-High      | 2567.5          | 21.42                     | 21.70 | 21.55 |
|                 |               | 2535            | 21.14                     | 21.36 | 21.35 |
|                 |               | 2502.5          | 21.35                     | 21.51 | 21.53 |
|                 | 1RB-Middle    | 2567.5          | 21.47                     | 21.82 | 21.65 |
|                 |               | 2535            | 21.20                     | 21.43 | 21.32 |
|                 |               | 2502.5          | 21.37                     | 21.49 | 21.48 |
|                 | 1RB-Low       | 2567.5          | 21.41                     | 21.59 | 21.54 |
|                 |               | 2535            | 21.17                     | 21.35 | 21.31 |
|                 |               | 2502.5          | 21.38                     | 21.57 | 21.52 |
|                 | 12RB-High     | 2567.5          | 21.43                     | 21.47 | 20.39 |
|                 |               | 2535            | 21.12                     | 21.15 | 20.12 |
|                 |               | 2502.5          | 21.36                     | 21.36 | 20.36 |
|                 | 12RB-Middle   | 2567.5          | 21.42                     | 21.42 | 20.39 |
|                 |               | 2535            | 21.11                     | 21.16 | 20.11 |
|                 |               | 2502.5          | 21.34                     | 21.37 | 20.33 |
|                 | 12RB-Low      | 2567.5          | 21.47                     | 21.44 | 20.46 |
|                 |               | 2535            | 21.17                     | 21.15 | 20.16 |
|                 |               | 2502.5          | 21.37                     | 21.36 | 20.39 |
|                 | 25RB          | 2567.5          | 21.45                     | 21.45 | 20.40 |
|                 |               | 2535            | 21.09                     | 21.13 | 20.12 |
|                 |               | 2502.5          | 21.34                     | 21.39 | 20.33 |
| 10MHz           | 1RB-High      | 2565            | 21.42                     | 21.61 | 21.56 |
|                 |               | 2535            | 21.15                     | 21.43 | 21.22 |
|                 |               | 2505            | 21.26                     | 21.47 | 21.42 |
|                 | 1RB-Middle    | 2565            | 21.45                     | 21.73 | 21.57 |
|                 |               | 2535            | 21.18                     | 21.47 | 21.33 |
|                 |               | 2505            | 21.37                     | 21.52 | 21.49 |
|                 | 1RB-Low       | 2565            | 21.36                     | 21.61 | 21.50 |
|                 |               | 2535            | 21.10                     | 21.25 | 21.21 |
|                 |               | 2505            | 21.35                     | 21.43 | 21.46 |
|                 | 25RB-High     | 2565            | 21.45                     | 21.47 | 20.43 |
|                 |               | 2535            | 21.18                     | 21.21 | 20.14 |
|                 |               | 2505            | 21.34                     | 21.36 | 20.31 |
|                 | 25RB-Middle   | 2565            | 21.42                     | 21.48 | 20.44 |
|                 |               | 2535            | 21.14                     | 21.16 | 20.15 |
|                 |               | 2505            | 21.31                     | 21.34 | 20.32 |
|                 | 25RB-Low      | 2565            | 21.42                     | 21.50 | 20.43 |
|                 |               | 2535            | 21.11                     | 21.16 | 20.11 |
|                 |               | 2505            | 21.32                     | 21.34 | 20.33 |
|                 | 50RB          | 2565            | 21.44                     | 21.41 | 20.40 |
|                 |               | 2535            | 21.18                     | 21.18 | 20.13 |
|                 |               | 2505            | 21.34                     | 21.32 | 20.32 |
| 15MHz           | 1RB-High      | 2562.5          | 21.33                     | 21.56 | 21.43 |
|                 |               | 2535            | 21.04                     | 21.33 | 21.21 |
|                 |               | 2507.5          | 21.12                     | 21.38 | 21.22 |
|                 | 1RB-Middle    | 2562.5          | 21.39                     | 21.63 | 21.53 |
|                 |               | 2535            | 21.12                     | 21.34 | 21.26 |
|                 |               | 2507.5          | 21.23                     | 21.61 | 21.42 |
|                 | 1RB-Low       | 2562.5          | 21.22                     | 21.40 | 21.32 |
|                 |               | 2535            | 21.09                     | 21.31 | 21.21 |
|                 |               | 2507.5          | 21.25                     | 21.50 | 21.39 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       | 36RB-High   | 2562.5 | 21.35 | 21.38 | 20.43 |
|       |             | 2535   | 21.15 | 21.13 | 20.15 |
|       |             | 2507.5 | 21.22 | 21.23 | 20.21 |
|       | 36RB-Middle | 2562.5 | 21.36 | 21.36 | 20.37 |
|       |             | 2535   | 21.11 | 21.10 | 20.12 |
|       |             | 2507.5 | 21.23 | 21.29 | 20.28 |
|       | 36RB-Low    | 2562.5 | 21.34 | 21.37 | 20.36 |
|       |             | 2535   | 21.04 | 21.11 | 20.11 |
|       |             | 2507.5 | 21.25 | 21.24 | 20.28 |
|       | 75RB        | 2562.5 | 21.38 | 21.38 | 20.32 |
|       |             | 2535   | 21.15 | 21.14 | 20.10 |
|       |             | 2507.5 | 21.28 | 21.25 | 20.25 |
| 20MHz | 1RB-High    | 2560   | 21.11 | 21.37 | 21.32 |
|       |             | 2535   | 20.88 | 21.11 | 21.00 |
|       |             | 2510   | 20.91 | 21.03 | 21.04 |
|       | 1RB-Middle  | 2560   | 21.16 | 21.42 | 21.33 |
|       |             | 2535   | 20.99 | 21.23 | 21.17 |
|       |             | 2510   | 21.07 | 21.30 | 21.29 |
|       | 1RB-Low     | 2560   | 21.00 | 21.26 | 21.17 |
|       |             | 2535   | 20.90 | 21.12 | 20.99 |
|       |             | 2510   | 21.01 | 21.28 | 21.10 |
|       | 50RB-High   | 2560   | 21.15 | 21.17 | 20.13 |
|       |             | 2535   | 20.94 | 20.96 | 19.93 |
|       |             | 2510   | 21.08 | 21.04 | 20.04 |
|       | 50RB-Middle | 2560   | 21.22 | 21.24 | 20.22 |
|       |             | 2535   | 21.00 | 21.01 | 19.97 |
|       |             | 2510   | 21.08 | 21.07 | 20.06 |
|       | 50RB-Low    | 2560   | 21.25 | 21.23 | 20.22 |
|       |             | 2535   | 21.04 | 21.03 | 20.03 |
|       |             | 2510   | 21.08 | 21.10 | 20.07 |
|       | 100RB       | 2560   | 21.15 | 21.18 | 20.13 |
|       |             | 2535   | 21.02 | 20.98 | 20.00 |
|       |             | 2510   | 21.06 | 21.03 | 20.05 |

#### LTE Band7(ANT31 DSI8/9/10)

| Band 7          |                            |                 |                           |       |       |
|-----------------|----------------------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation<br>RB offset | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 |                            |                 | QPSK                      | 16QAM | 64QAM |
| 5MHz            | 1RB-High                   | 2567.5          | 20.13                     | 20.34 | 20.24 |
|                 |                            | 2535            | 19.87                     | 20.10 | 20.03 |
|                 |                            | 2502.5          | 20.06                     | 20.31 | 20.16 |
|                 | 1RB-Middle                 | 2567.5          | 20.18                     | 20.32 | 20.32 |
|                 |                            | 2535            | 19.91                     | 20.02 | 20.09 |
|                 |                            | 2502.5          | 20.16                     | 20.29 | 20.26 |
|                 | 1RB-Low                    | 2567.5          | 20.09                     | 20.37 | 20.20 |
|                 |                            | 2535            | 19.87                     | 20.11 | 20.04 |
|                 |                            | 2502.5          | 20.08                     | 20.38 | 20.24 |
|                 | 12RB-High                  | 2567.5          | 20.12                     | 20.09 | 20.17 |
|                 |                            | 2535            | 19.81                     | 19.76 | 19.84 |
|                 |                            | 2502.5          | 20.07                     | 20.03 | 20.10 |
|                 | 12RB-Middle                | 2567.5          | 20.12                     | 20.15 | 20.16 |
|                 |                            | 2535            | 19.83                     | 19.82 | 19.88 |
|                 |                            | 2502.5          | 20.04                     | 20.05 | 20.10 |
|                 | 12RB-Low                   | 2567.5          | 20.14                     | 20.18 | 20.16 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       | 25RB        | 2535   | 19.90 | 19.88 | 19.90 |
|       |             | 2502.5 | 20.07 | 20.10 | 20.10 |
|       |             | 2567.5 | 20.10 | 20.17 | 20.17 |
|       |             | 2535   | 19.89 | 19.89 | 19.86 |
|       |             | 2502.5 | 20.08 | 20.09 | 20.09 |
| 10MHz | 1RB-High    | 2565   | 20.13 | 20.42 | 20.24 |
|       |             | 2535   | 19.82 | 20.15 | 19.97 |
|       |             | 2505   | 19.97 | 20.27 | 20.11 |
|       | 1RB-Middle  | 2565   | 20.10 | 20.44 | 20.29 |
|       |             | 2535   | 19.91 | 20.12 | 20.05 |
|       |             | 2505   | 20.07 | 20.33 | 20.26 |
|       | 1RB-Low     | 2565   | 20.03 | 20.36 | 20.19 |
|       |             | 2535   | 19.81 | 19.99 | 19.89 |
|       |             | 2505   | 20.07 | 20.23 | 20.16 |
|       | 25RB-High   | 2565   | 20.14 | 20.17 | 20.15 |
|       |             | 2535   | 19.86 | 19.88 | 19.87 |
|       |             | 2505   | 19.99 | 20.02 | 20.02 |
|       | 25RB-Middle | 2565   | 20.08 | 20.15 | 20.15 |
|       |             | 2535   | 19.80 | 19.85 | 19.86 |
|       |             | 2505   | 20.01 | 20.02 | 20.04 |
|       | 25RB-Low    | 2565   | 20.15 | 20.16 | 20.17 |
|       |             | 2535   | 19.80 | 19.86 | 19.86 |
|       |             | 2505   | 20.02 | 20.06 | 20.05 |
|       | 50RB        | 2565   | 20.14 | 20.13 | 20.14 |
|       |             | 2535   | 19.86 | 19.88 | 19.90 |
|       |             | 2505   | 20.06 | 20.08 | 20.07 |
| 15MHz | 1RB-High    | 2562.5 | 20.05 | 20.34 | 20.22 |
|       |             | 2535   | 19.76 | 20.13 | 19.93 |
|       |             | 2507.5 | 19.80 | 20.08 | 19.95 |
|       | 1RB-Middle  | 2562.5 | 20.07 | 20.28 | 20.20 |
|       |             | 2535   | 19.81 | 20.14 | 20.04 |
|       |             | 2507.5 | 19.93 | 20.16 | 20.13 |
|       | 1RB-Low     | 2562.5 | 19.94 | 20.20 | 20.04 |
|       |             | 2535   | 19.82 | 20.02 | 20.04 |
|       |             | 2507.5 | 19.98 | 20.16 | 20.08 |
|       | 36RB-High   | 2562.5 | 20.07 | 20.04 | 20.09 |
|       |             | 2535   | 19.80 | 19.85 | 19.87 |
|       |             | 2507.5 | 19.90 | 19.96 | 19.99 |
|       | 36RB-Middle | 2562.5 | 20.01 | 20.09 | 20.11 |
|       |             | 2535   | 19.83 | 19.84 | 19.85 |
|       |             | 2507.5 | 19.95 | 19.95 | 19.98 |
|       | 36RB-Low    | 2562.5 | 20.03 | 20.10 | 20.11 |
|       |             | 2535   | 19.79 | 19.83 | 19.83 |
|       |             | 2507.5 | 20.01 | 20.02 | 20.00 |
|       | 75RB        | 2562.5 | 20.07 | 20.07 | 20.09 |
|       |             | 2535   | 19.82 | 19.85 | 19.86 |
|       |             | 2507.5 | 19.99 | 19.97 | 20.00 |
| 20MHz | 1RB-High    | 2560   | 20.09 | 20.30 | 20.19 |
|       |             | 2535   | 19.86 | 20.16 | 20.04 |
|       |             | 2510   | 19.88 | 20.10 | 19.97 |
|       | 1RB-Middle  | 2560   | 20.11 | 20.40 | 20.31 |
|       |             | 2535   | 20.00 | 20.15 | 20.17 |
|       |             | 2510   | 20.02 | 20.39 | 20.13 |
|       | 1RB-Low     | 2560   | 19.96 | 20.18 | 20.26 |
|       |             | 2535   | 19.84 | 20.01 | 19.96 |

|  |             |      |       |       |       |
|--|-------------|------|-------|-------|-------|
|  | 50RB-High   | 2510 | 20.00 | 20.17 | 20.08 |
|  |             | 2560 | 20.10 | 20.13 | 20.15 |
|  |             | 2535 | 19.94 | 19.96 | 19.95 |
|  | 50RB-Middle | 2510 | 20.01 | 20.05 | 20.05 |
|  |             | 2560 | 20.20 | 20.21 | 20.23 |
|  |             | 2535 | 20.03 | 20.02 | 20.04 |
|  | 50RB-Low    | 2510 | 20.06 | 20.07 | 20.07 |
|  |             | 2560 | 20.18 | 20.20 | 20.24 |
|  |             | 2535 | 20.01 | 20.00 | 20.02 |
|  | 100RB       | 2510 | 20.03 | 20.10 | 20.08 |
|  |             | 2560 | 20.16 | 20.16 | 20.15 |
|  |             | 2535 | 20.01 | 19.97 | 19.98 |
|  |             | 2510 | 20.03 | 20.06 | 20.00 |

### LTE Band12(ANT13 DSI2/3)

| Band 12         |               |                 |                           |       |       |
|-----------------|---------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 | RB offset     |                 | QPSK                      | 16QAM | 64QAM |
| 1.4MHz          | 1RB-High      | 715.3           | 20.31                     | 20.53 | 20.57 |
|                 |               | 707.5           | 20.29                     | 20.53 | 20.45 |
|                 |               | 699.7           | 20.38                     | 20.74 | 20.62 |
|                 | 1RB-Middle    | 715.3           | 20.39                     | 20.56 | 20.55 |
|                 |               | 707.5           | 20.31                     | 20.55 | 20.49 |
|                 |               | 699.7           | 20.37                     | 20.70 | 20.61 |
|                 | 1RB-Low       | 715.3           | 20.34                     | 20.64 | 20.48 |
|                 |               | 707.5           | 20.34                     | 20.69 | 20.49 |
|                 |               | 699.7           | 20.41                     | 20.66 | 20.64 |
|                 | 3RB-High      | 715.3           | 20.37                     | 20.40 | 20.50 |
|                 |               | 707.5           | 20.33                     | 20.32 | 20.46 |
|                 |               | 699.7           | 20.41                     | 20.40 | 20.51 |
|                 | 3RB-Middle    | 715.3           | 20.37                     | 20.39 | 20.47 |
|                 |               | 707.5           | 20.33                     | 20.35 | 20.43 |
|                 |               | 699.7           | 20.37                     | 20.46 | 20.51 |
|                 | 3RB-Low       | 715.3           | 20.35                     | 20.30 | 20.44 |
|                 |               | 707.5           | 20.33                     | 20.38 | 20.44 |
|                 |               | 699.7           | 20.40                     | 20.46 | 20.49 |
|                 | 6RB           | 715.3           | 20.41                     | 20.48 | 20.40 |
|                 |               | 707.5           | 20.33                     | 20.39 | 20.29 |
|                 |               | 699.7           | 20.45                     | 20.47 | 20.42 |
| 3MHz            | 1RB-High      | 714.5           | 20.32                     | 20.54 | 20.48 |
|                 |               | 707.5           | 20.24                     | 20.53 | 20.41 |
|                 |               | 700.5           | 20.39                     | 20.62 | 20.64 |
|                 | 1RB-Middle    | 714.5           | 20.35                     | 20.62 | 20.55 |
|                 |               | 707.5           | 20.38                     | 20.70 | 20.53 |
|                 |               | 700.5           | 20.43                     | 20.71 | 20.68 |
|                 | 1RB-Low       | 714.5           | 20.35                     | 20.59 | 20.51 |
|                 |               | 707.5           | 20.34                     | 20.67 | 20.51 |
|                 |               | 700.5           | 20.43                     | 20.69 | 20.62 |
|                 | 8RB-High      | 714.5           | 20.33                     | 20.43 | 20.38 |
|                 |               | 707.5           | 20.29                     | 20.42 | 20.37 |
|                 |               | 700.5           | 20.39                     | 20.49 | 20.50 |
|                 | 8RB-Middle    | 714.5           | 20.30                     | 20.38 | 20.37 |
|                 |               | 707.5           | 20.32                     | 20.42 | 20.39 |
|                 |               | 700.5           | 20.36                     | 20.52 | 20.49 |

|       |             |       |       |       |       |
|-------|-------------|-------|-------|-------|-------|
|       | 8RB-Low     | 714.5 | 20.39 | 20.47 | 20.43 |
|       |             | 707.5 | 20.29 | 20.36 | 20.39 |
|       |             | 700.5 | 20.36 | 20.51 | 20.50 |
|       | 15RB        | 714.5 | 20.31 | 20.37 | 20.30 |
|       |             | 707.5 | 20.30 | 20.33 | 20.26 |
|       |             | 700.5 | 20.40 | 20.47 | 20.45 |
| 5MHz  | 1RB-High    | 713.5 | 20.39 | 20.55 | 20.55 |
|       |             | 707.5 | 20.32 | 20.43 | 20.48 |
|       |             | 701.5 | 20.44 | 20.64 | 20.58 |
|       | 1RB-Middle  | 713.5 | 20.42 | 20.70 | 20.56 |
|       |             | 707.5 | 20.38 | 20.57 | 20.56 |
|       |             | 701.5 | 20.44 | 20.58 | 20.69 |
|       | 1RB-Low     | 713.5 | 20.40 | 20.65 | 20.57 |
|       |             | 707.5 | 20.39 | 20.68 | 20.50 |
|       |             | 701.5 | 20.44 | 20.59 | 20.55 |
|       | 12RB-High   | 713.5 | 20.26 | 20.24 | 20.29 |
|       |             | 707.5 | 20.31 | 20.32 | 20.31 |
|       |             | 701.5 | 20.44 | 20.43 | 20.45 |
|       | 12RB-Middle | 713.5 | 20.40 | 20.35 | 20.43 |
|       |             | 707.5 | 20.34 | 20.36 | 20.40 |
|       |             | 701.5 | 20.37 | 20.44 | 20.45 |
|       | 12RB-Low    | 713.5 | 20.37 | 20.40 | 20.41 |
|       |             | 707.5 | 20.36 | 20.36 | 20.38 |
|       |             | 701.5 | 20.34 | 20.43 | 20.41 |
|       | 25RB        | 713.5 | 20.33 | 20.33 | 20.37 |
|       |             | 707.5 | 20.30 | 20.34 | 20.37 |
|       |             | 701.5 | 20.36 | 20.45 | 20.45 |
| 10MHz | 1RB-High    | 711   | 20.37 | 20.64 | 20.48 |
|       |             | 707.5 | 20.33 | 20.56 | 20.41 |
|       |             | 704   | 20.35 | 20.63 | 20.50 |
|       | 1RB-Middle  | 711   | 20.41 | 20.59 | 20.47 |
|       |             | 707.5 | 20.52 | 20.78 | 20.62 |
|       |             | 704   | 20.54 | 20.66 | 20.65 |
|       | 1RB-Low     | 711   | 20.46 | 20.61 | 20.47 |
|       |             | 707.5 | 20.46 | 20.71 | 20.60 |
|       |             | 704   | 20.51 | 20.73 | 20.71 |
|       | 25RB-High   | 711   | 20.32 | 20.36 | 20.32 |
|       |             | 707.5 | 20.38 | 20.40 | 20.36 |
|       |             | 704   | 20.48 | 20.49 | 20.49 |
|       | 25RB-Middle | 711   | 20.37 | 20.40 | 20.43 |
|       |             | 707.5 | 20.42 | 20.45 | 20.48 |
|       |             | 704   | 20.42 | 20.50 | 20.49 |
|       | 25RB-Low    | 711   | 20.42 | 20.45 | 20.48 |
|       |             | 707.5 | 20.42 | 20.47 | 20.43 |
|       |             | 704   | 20.31 | 20.35 | 20.38 |
|       | 50RB        | 711   | 20.36 | 20.42 | 20.40 |
|       |             | 707.5 | 20.38 | 20.43 | 20.41 |
|       |             | 704   | 20.39 | 20.42 | 20.45 |

# LTE Band12(ANT13 DSI4/10)

| Band 12         |               |                 |                           |       |       |
|-----------------|---------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 | RB offset     |                 | QPSK                      | 16QAM | 64QAM |

|        |             |       |       |       |       |
|--------|-------------|-------|-------|-------|-------|
| 1.4MHz | 1RB-High    | 715.3 | 23.26 | 22.65 | 21.54 |
|        |             | 707.5 | 23.17 | 22.54 | 21.55 |
|        |             | 699.7 | 23.31 | 22.73 | 21.55 |
|        | 1RB-Middle  | 715.3 | 23.25 | 22.61 | 21.54 |
|        |             | 707.5 | 23.20 | 22.54 | 21.54 |
|        |             | 699.7 | 23.32 | 22.73 | 21.61 |
|        | 1RB-Low     | 715.3 | 23.23 | 22.49 | 21.55 |
|        |             | 707.5 | 23.23 | 22.67 | 21.56 |
|        |             | 699.7 | 23.36 | 22.72 | 21.62 |
|        | 3RB-High    | 715.3 | 23.31 | 22.46 | 21.48 |
|        |             | 707.5 | 23.20 | 22.33 | 21.39 |
|        |             | 699.7 | 23.32 | 22.57 | 21.56 |
|        | 3RB-Middle  | 715.3 | 23.29 | 22.52 | 21.45 |
|        |             | 707.5 | 23.20 | 22.40 | 21.48 |
|        |             | 699.7 | 23.37 | 22.56 | 21.54 |
|        | 3RB-Low     | 715.3 | 23.25 | 22.45 | 21.46 |
|        |             | 707.5 | 23.21 | 22.39 | 21.43 |
|        |             | 699.7 | 23.38 | 22.51 | 21.55 |
|        | 6RB         | 715.3 | 22.44 | 21.49 | 20.35 |
|        |             | 707.5 | 22.37 | 21.39 | 20.31 |
|        |             | 699.7 | 22.52 | 21.54 | 20.46 |
| 3MHz   | 1RB-High    | 714.5 | 23.24 | 22.54 | 21.56 |
|        |             | 707.5 | 23.15 | 22.46 | 21.43 |
|        |             | 700.5 | 23.31 | 22.69 | 21.58 |
|        | 1RB-Middle  | 714.5 | 23.28 | 22.63 | 21.56 |
|        |             | 707.5 | 23.28 | 22.62 | 21.49 |
|        |             | 700.5 | 23.42 | 22.70 | 21.65 |
|        | 1RB-Low     | 714.5 | 23.18 | 22.54 | 21.47 |
|        |             | 707.5 | 23.23 | 22.51 | 21.55 |
|        |             | 700.5 | 23.36 | 22.71 | 21.65 |
|        | 8RB-High    | 714.5 | 22.36 | 21.43 | 20.40 |
|        |             | 707.5 | 22.31 | 21.40 | 20.35 |
|        |             | 700.5 | 22.47 | 21.50 | 20.49 |
|        | 8RB-Middle  | 714.5 | 22.38 | 21.43 | 20.36 |
|        |             | 707.5 | 22.36 | 21.43 | 20.37 |
|        |             | 700.5 | 22.45 | 21.49 | 20.47 |
|        | 8RB-Low     | 714.5 | 22.41 | 21.48 | 20.46 |
|        |             | 707.5 | 22.39 | 21.40 | 20.38 |
|        |             | 700.5 | 22.49 | 21.52 | 20.53 |
|        | 15RB        | 714.5 | 22.35 | 21.40 | 20.32 |
|        |             | 707.5 | 22.34 | 21.36 | 20.31 |
|        |             | 700.5 | 22.43 | 21.49 | 20.42 |
| 5MHz   | 1RB-High    | 713.5 | 23.29 | 22.58 | 21.55 |
|        |             | 707.5 | 23.20 | 22.50 | 21.44 |
|        |             | 701.5 | 23.35 | 22.64 | 21.65 |
|        | 1RB-Middle  | 713.5 | 23.32 | 22.62 | 21.57 |
|        |             | 707.5 | 23.32 | 22.53 | 21.53 |
|        |             | 701.5 | 23.38 | 22.60 | 21.71 |
|        | 1RB-Low     | 713.5 | 23.27 | 22.61 | 21.54 |
|        |             | 707.5 | 23.29 | 22.57 | 21.58 |
|        |             | 701.5 | 23.38 | 22.60 | 21.62 |
|        | 12RB-High   | 713.5 | 22.29 | 21.28 | 20.28 |
|        |             | 707.5 | 22.33 | 21.33 | 20.34 |
|        |             | 701.5 | 22.50 | 21.47 | 20.44 |
|        | 12RB-Middle | 713.5 | 22.40 | 21.42 | 20.43 |

|       |             |       |       |       |       |
|-------|-------------|-------|-------|-------|-------|
|       | 12RB-Low    | 707.5 | 22.42 | 21.31 | 20.39 |
|       |             | 701.5 | 22.47 | 21.43 | 20.46 |
|       |             | 713.5 | 22.40 | 21.39 | 20.40 |
|       |             | 707.5 | 22.39 | 21.38 | 20.40 |
|       |             | 701.5 | 22.45 | 21.41 | 20.41 |
|       | 25RB        | 713.5 | 22.37 | 21.37 | 20.31 |
|       |             | 707.5 | 22.36 | 21.35 | 20.34 |
|       |             | 701.5 | 22.47 | 21.45 | 20.47 |
|       |             | 711   | 23.30 | 22.65 | 21.53 |
|       |             | 707.5 | 23.22 | 22.59 | 21.47 |
| 10MHz | 1RB-High    | 704   | 23.29 | 22.63 | 21.53 |
|       |             | 711   | 23.33 | 22.60 | 21.49 |
|       |             | 707.5 | 23.42 | 22.77 | 21.58 |
|       | 1RB-Middle  | 704   | 23.49 | 22.81 | 21.68 |
|       |             | 711   | 23.35 | 22.71 | 21.63 |
|       |             | 707.5 | 23.39 | 22.74 | 21.63 |
|       | 1RB-Low     | 704   | 23.50 | 22.68 | 21.69 |
|       |             | 711   | 22.36 | 21.33 | 20.32 |
|       |             | 707.5 | 22.43 | 21.44 | 20.40 |
|       | 25RB-High   | 704   | 22.54 | 21.53 | 20.49 |
|       |             | 711   | 22.39 | 21.45 | 20.44 |
|       |             | 707.5 | 22.45 | 21.50 | 20.49 |
|       | 25RB-Middle | 704   | 22.55 | 21.54 | 20.53 |
|       |             | 711   | 22.47 | 21.51 | 20.48 |
|       |             | 707.5 | 22.49 | 21.52 | 20.47 |
|       | 25RB-Low    | 704   | 22.38 | 21.41 | 20.40 |
|       |             | 711   | 22.41 | 21.41 | 20.42 |
|       |             | 707.5 | 22.46 | 21.42 | 20.40 |
|       | 50RB        | 704   | 22.49 | 21.50 | 20.46 |

#### LTE Band12(ANT41 DSI2/3/4/10)

| Band 12         |                            |                 |                           |       |       |
|-----------------|----------------------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation<br>RB offset | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 |                            |                 | QPSK                      | 16QAM | 64QAM |
| 1.4MHz          | 1RB-High                   | 715.3           | 23.24                     | 22.56 | 21.52 |
|                 |                            | 707.5           | 23.18                     | 22.58 | 21.42 |
|                 |                            | 699.7           | 23.34                     | 22.66 | 21.66 |
|                 | 1RB-Middle                 | 715.3           | 23.20                     | 22.56 | 21.53 |
|                 |                            | 707.5           | 23.21                     | 22.56 | 21.44 |
|                 |                            | 699.7           | 23.36                     | 22.70 | 21.63 |
|                 | 1RB-Low                    | 715.3           | 23.25                     | 22.53 | 21.55 |
|                 |                            | 707.5           | 23.23                     | 22.52 | 21.57 |
|                 |                            | 699.7           | 23.31                     | 22.68 | 21.65 |
|                 | 3RB-High                   | 715.3           | 23.23                     | 22.35 | 21.46 |
|                 |                            | 707.5           | 23.17                     | 22.38 | 21.43 |
|                 |                            | 699.7           | 23.33                     | 22.52 | 21.51 |
|                 | 3RB-Middle                 | 715.3           | 23.23                     | 22.37 | 21.44 |
|                 |                            | 707.5           | 23.19                     | 22.32 | 21.40 |
|                 |                            | 699.7           | 23.34                     | 22.55 | 21.60 |
|                 | 3RB-Low                    | 715.3           | 23.21                     | 22.35 | 21.39 |
|                 |                            | 707.5           | 23.20                     | 22.43 | 21.43 |
|                 |                            | 699.7           | 23.31                     | 22.54 | 21.57 |
|                 | 6RB                        | 715.3           | 22.38                     | 21.47 | 20.35 |
|                 |                            | 707.5           | 22.37                     | 21.42 | 20.25 |

|       |             |       |       |       |       |
|-------|-------------|-------|-------|-------|-------|
|       |             | 699.7 | 22.53 | 21.56 | 20.44 |
| 3MHz  | 1RB-High    | 714.5 | 23.24 | 22.60 | 21.52 |
|       |             | 707.5 | 23.13 | 22.49 | 21.45 |
|       |             | 700.5 | 23.29 | 22.67 | 21.52 |
|       | 1RB-Middle  | 714.5 | 23.26 | 22.50 | 21.48 |
|       |             | 707.5 | 23.29 | 22.60 | 21.50 |
|       |             | 700.5 | 23.39 | 22.74 | 21.63 |
|       | 1RB-Low     | 714.5 | 23.19 | 22.55 | 21.50 |
|       |             | 707.5 | 23.24 | 22.54 | 21.47 |
|       |             | 700.5 | 23.37 | 22.77 | 21.67 |
|       | 8RB-High    | 714.5 | 22.33 | 21.43 | 20.33 |
|       |             | 707.5 | 22.33 | 21.40 | 20.33 |
|       |             | 700.5 | 22.47 | 21.53 | 20.46 |
|       | 8RB-Middle  | 714.5 | 22.36 | 21.41 | 20.33 |
|       |             | 707.5 | 22.35 | 21.44 | 20.34 |
|       |             | 700.5 | 22.44 | 21.53 | 20.46 |
|       | 8RB-Low     | 714.5 | 22.40 | 21.40 | 20.43 |
|       |             | 707.5 | 22.37 | 21.42 | 20.35 |
|       |             | 700.5 | 22.46 | 21.52 | 20.49 |
|       | 15RB        | 714.5 | 22.31 | 21.35 | 20.31 |
|       |             | 707.5 | 22.34 | 21.41 | 20.35 |
|       |             | 700.5 | 22.42 | 21.48 | 20.42 |
| 5MHz  | 1RB-High    | 713.5 | 23.26 | 22.57 | 21.49 |
|       |             | 707.5 | 23.22 | 22.46 | 21.38 |
|       |             | 701.5 | 23.36 | 22.66 | 21.52 |
|       | 1RB-Middle  | 713.5 | 23.32 | 22.53 | 21.51 |
|       |             | 707.5 | 23.24 | 22.65 | 21.58 |
|       |             | 701.5 | 23.38 | 22.57 | 21.61 |
|       | 1RB-Low     | 713.5 | 23.26 | 22.52 | 21.52 |
|       |             | 707.5 | 23.28 | 22.55 | 21.57 |
|       |             | 701.5 | 23.39 | 22.62 | 21.60 |
|       | 12RB-High   | 713.5 | 22.23 | 21.22 | 20.23 |
|       |             | 707.5 | 22.32 | 21.29 | 20.36 |
|       |             | 701.5 | 22.48 | 21.42 | 20.44 |
|       | 12RB-Middle | 713.5 | 22.40 | 21.37 | 20.39 |
|       |             | 707.5 | 22.36 | 21.39 | 20.40 |
|       |             | 701.5 | 22.46 | 21.48 | 20.47 |
|       | 12RB-Low    | 713.5 | 22.39 | 21.34 | 20.40 |
|       |             | 707.5 | 22.41 | 21.39 | 20.43 |
|       |             | 701.5 | 22.41 | 21.36 | 20.39 |
|       | 25RB        | 713.5 | 22.29 | 21.32 | 20.30 |
|       |             | 707.5 | 22.36 | 21.40 | 20.34 |
|       |             | 701.5 | 22.42 | 21.48 | 20.41 |
| 10MHz | 1RB-High    | 711   | 23.19 | 22.50 | 21.45 |
|       |             | 707.5 | 23.17 | 22.55 | 21.42 |
|       |             | 704   | 23.21 | 22.52 | 21.41 |
|       | 1RB-Middle  | 711   | 23.28 | 22.62 | 21.51 |
|       |             | 707.5 | 23.37 | 22.71 | 21.62 |
|       |             | 704   | 23.37 | 22.63 | 21.63 |
|       | 1RB-Low     | 711   | 23.26 | 22.63 | 21.57 |
|       |             | 707.5 | 23.30 | 22.70 | 21.51 |
|       |             | 704   | 23.40 | 22.68 | 21.57 |
|       | 25RB-High   | 711   | 22.31 | 21.32 | 20.31 |
|       |             | 707.5 | 22.42 | 21.42 | 20.37 |
|       |             | 704   | 22.42 | 21.43 | 20.39 |

|  |             |       |       |       |       |
|--|-------------|-------|-------|-------|-------|
|  | 25RB-Middle | 711   | 22.36 | 21.35 | 20.35 |
|  |             | 707.5 | 22.44 | 21.44 | 20.43 |
|  |             | 704   | 22.44 | 21.49 | 20.46 |
|  | 25RB-Low    | 711   | 22.29 | 21.34 | 20.30 |
|  |             | 707.5 | 22.40 | 21.40 | 20.38 |
|  |             | 704   | 22.50 | 21.52 | 20.49 |
|  | 50RB        | 711   | 22.37 | 21.32 | 20.33 |
|  |             | 707.5 | 22.37 | 21.35 | 20.33 |
|  |             | 704   | 22.44 | 21.38 | 20.42 |

### LTE Band13(ANT13 DSI2/3)

| Band 13         |                      |                 |                           |       |       |
|-----------------|----------------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation        | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 | RB offset (Start RB) |                 | QPSK                      | 16QAM | 64QAM |
| 5 MHz           | 1RB-High             | 784.5           | 20.60                     | 20.83 | 20.74 |
|                 |                      | 782             | 20.56                     | 20.73 | 20.72 |
|                 |                      | 779.5           | 20.68                     | 20.98 | 20.80 |
|                 | 1RB-Middle           | 784.5           | 20.64                     | 20.79 | 20.72 |
|                 |                      | 782             | 20.71                     | 21.06 | 20.84 |
|                 |                      | 779.5           | 20.70                     | 21.04 | 20.93 |
|                 | 1RB-Low              | 784.5           | 20.70                     | 21.02 | 20.83 |
|                 |                      | 782             | 20.73                     | 21.02 | 20.85 |
|                 |                      | 779.5           | 20.77                     | 21.18 | 20.99 |
|                 | 12RB-High            | 784.5           | 20.45                     | 20.47 | 20.47 |
|                 |                      | 782             | 20.62                     | 20.57 | 20.63 |
|                 |                      | 779.5           | 20.84                     | 20.80 | 20.82 |
|                 | 12RB-Middle          | 784.5           | 20.59                     | 20.57 | 20.59 |
|                 |                      | 782             | 20.60                     | 20.62 | 20.63 |
|                 |                      | 779.5           | 20.64                     | 20.66 | 20.71 |
|                 | 12RB-Low             | 784.5           | 20.59                     | 20.55 | 20.61 |
|                 |                      | 782             | 20.53                     | 20.51 | 20.53 |
|                 |                      | 779.5           | 20.62                     | 20.63 | 20.67 |
|                 | 25RB                 | 784.5           | 20.51                     | 20.55 | 20.53 |
|                 |                      | 782             | 20.54                     | 20.58 | 20.57 |
|                 |                      | 779.5           | 20.74                     | 20.77 | 20.81 |
| 10 MHz          | 1RB-High             | 782             | 20.63                     | 20.82 | 20.66 |
|                 | 1RB-Middle           | 782             | 20.75                     | 21.06 | 20.88 |
|                 | 1RB-Low              | 782             | 20.89                     | 21.24 | 20.98 |
|                 | 25RB-High            | 782             | 20.54                     | 20.57 | 20.58 |
|                 | 25RB-Middle          | 782             | 20.70                     | 20.72 | 20.71 |
|                 | 25RB-Low             | 782             | 20.49                     | 20.49 | 20.53 |
|                 | 50RB                 | 782             | 20.55                     | 20.50 | 20.52 |

### LTE Band13(ANT13 DSI4/10)

| Band 13         |               |           |                           |
|-----------------|---------------|-----------|---------------------------|
| Bandwidth (MHz) | RB allocation | Frequency | Actual output power (dBm) |

|        | RB offset (Start RB) | (MHz) | QPSK  | 16QAM | 64QAM |
|--------|----------------------|-------|-------|-------|-------|
| 5 MHz  | 1RB-High             | 784.5 | 23.50 | 22.59 | 21.77 |
|        |                      | 782   | 23.46 | 22.66 | 21.73 |
|        |                      | 779.5 | 23.56 | 22.80 | 21.89 |
|        | 1RB-Middle           | 784.5 | 23.53 | 22.58 | 21.77 |
|        |                      | 782   | 23.57 | 22.85 | 21.85 |
|        |                      | 779.5 | 23.59 | 22.82 | 21.89 |
|        | 1RB-Low              | 784.5 | 23.56 | 22.81 | 21.85 |
|        |                      | 782   | 23.63 | 22.85 | 21.96 |
|        |                      | 779.5 | 23.70 | 22.99 | 21.87 |
|        | 12RB-High            | 784.5 | 22.30 | 21.46 | 20.47 |
|        |                      | 782   | 22.41 | 21.62 | 20.64 |
|        |                      | 779.5 | 22.67 | 21.82 | 20.84 |
|        | 12RB-Middle          | 784.5 | 22.44 | 21.59 | 20.65 |
|        |                      | 782   | 22.49 | 21.61 | 20.63 |
|        |                      | 779.5 | 22.54 | 21.71 | 20.68 |
|        | 12RB-Low             | 784.5 | 22.44 | 21.58 | 20.61 |
|        |                      | 782   | 22.41 | 21.52 | 20.52 |
|        |                      | 779.5 | 22.49 | 21.65 | 20.65 |
|        | 25RB                 | 784.5 | 22.37 | 21.53 | 20.51 |
|        |                      | 782   | 22.40 | 21.63 | 20.59 |
|        |                      | 779.5 | 22.60 | 21.75 | 20.77 |
| 10 MHz | 1RB-High             | 782   | 23.53 | 22.60 | 21.75 |
|        | 1RB-Middle           | 782   | 23.65 | 22.96 | 21.87 |
|        | 1RB-Low              | 782   | 23.78 | 23.04 | 21.96 |
|        | 25RB-High            | 782   | 22.38 | 21.58 | 20.53 |
|        | 25RB-Middle          | 782   | 22.59 | 21.70 | 20.74 |
|        | 25RB-Low             | 782   | 22.36 | 21.49 | 20.54 |
|        | 50RB                 | 782   | 22.37 | 21.49 | 20.55 |

**LTE Band13(ANT41 DSI2/3/4/10)**

| Band 13         |                      |                 |                           |       |       |
|-----------------|----------------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation        | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 | RB offset (Start RB) |                 | QPSK                      | 16QAM | 64QAM |
| 5 MHz           | 1RB-High             | 784.5           | 23.50                     | 22.54 | 21.77 |
|                 |                      | 782             | 23.44                     | 22.70 | 21.73 |
|                 |                      | 779.5           | 23.56                     | 22.84 | 21.91 |
|                 | 1RB-Middle           | 784.5           | 23.53                     | 22.58 | 21.74 |
|                 |                      | 782             | 23.59                     | 22.86 | 21.76 |
|                 |                      | 779.5           | 23.64                     | 22.87 | 21.93 |
|                 | 1RB-Low              | 784.5           | 23.57                     | 22.82 | 21.87 |
|                 |                      | 782             | 23.65                     | 22.91 | 21.91 |
|                 |                      | 779.5           | 23.69                     | 22.85 | 21.91 |
|                 | 12RB-High            | 784.5           | 22.31                     | 21.51 | 20.50 |
|                 |                      | 782             | 22.46                     | 21.58 | 20.64 |
|                 |                      | 779.5           | 22.68                     | 21.83 | 20.82 |
|                 | 12RB-Middle          | 784.5           | 22.43                     | 21.60 | 20.60 |
|                 |                      | 782             | 22.46                     | 21.61 | 20.62 |
|                 |                      | 779.5           | 22.54                     | 21.71 | 20.71 |
|                 | 12RB-Low             | 784.5           | 22.43                     | 21.62 | 20.57 |
|                 |                      | 782             | 22.39                     | 21.52 | 20.55 |
|                 |                      | 779.5           | 22.50                     | 21.66 | 20.65 |
|                 | 25RB                 | 784.5           | 22.40                     | 21.56 | 20.50 |
|                 |                      | 782             | 22.46                     | 21.60 | 20.58 |

|        |             |       |       |       |       |
|--------|-------------|-------|-------|-------|-------|
|        |             | 779.5 | 22.58 | 21.77 | 20.79 |
| 10 MHz | 1RB-High    | 782   | 23.46 | 22.57 | 21.71 |
|        | 1RB-Middle  | 782   | 23.62 | 22.77 | 21.91 |
|        | 1RB-Low     | 782   | 23.71 | 22.89 | 21.93 |
|        | 25RB-High   | 782   | 22.40 | 21.59 | 20.58 |
|        | 25RB-Middle | 782   | 22.51 | 21.70 | 20.70 |
|        | 25RB-Low    | 782   | 22.37 | 21.48 | 20.55 |
|        | 50RB        | 782   | 22.39 | 21.54 | 20.55 |

### LTE Band38(ANT13 DSI2/3)

| Band 38         |                            |                 |                           |       |       |
|-----------------|----------------------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation<br>RB offset | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 |                            |                 | QPSK                      | 16QAM | 64QAM |
| 5MHz            | 1RB-High                   | 2617.5          | 18.19                     | 18.34 | 18.07 |
|                 |                            | 2595            | 18.20                     | 18.31 | 18.09 |
|                 |                            | 2572.5          | 18.09                     | 18.23 | 17.98 |
|                 | 1RB-Middle                 | 2617.5          | 18.20                     | 18.31 | 18.06 |
|                 |                            | 2595            | 18.24                     | 18.34 | 18.11 |
|                 |                            | 2572.5          | 18.15                     | 18.27 | 18.03 |
|                 | 1RB-Low                    | 2617.5          | 18.20                     | 18.33 | 18.08 |
|                 |                            | 2595            | 18.23                     | 18.32 | 18.12 |
|                 |                            | 2572.5          | 18.15                     | 18.25 | 18.01 |
|                 | 12RB-High                  | 2617.5          | 18.11                     | 18.13 | 18.18 |
|                 |                            | 2595            | 18.12                     | 18.14 | 18.18 |
|                 |                            | 2572.5          | 18.06                     | 18.04 | 18.10 |
|                 | 12RB-Middle                | 2617.5          | 18.09                     | 18.10 | 18.13 |
|                 |                            | 2595            | 18.14                     | 18.12 | 18.19 |
|                 |                            | 2572.5          | 18.04                     | 18.04 | 18.07 |
|                 | 12RB-Low                   | 2617.5          | 18.14                     | 18.14 | 18.18 |
|                 |                            | 2595            | 18.15                     | 18.17 | 18.20 |
|                 |                            | 2572.5          | 18.06                     | 18.05 | 18.11 |
|                 | 25RB                       | 2617.5          | 18.08                     | 18.15 | 18.16 |
|                 |                            | 2595            | 18.16                     | 18.18 | 18.20 |
|                 |                            | 2572.5          | 18.02                     | 18.09 | 18.10 |
| 10MHz           | 1RB-High                   | 2615            | 18.12                     | 18.30 | 18.02 |
|                 |                            | 2595            | 18.14                     | 18.30 | 18.03 |
|                 |                            | 2575            | 18.09                     | 18.24 | 17.97 |
|                 | 1RB-Middle                 | 2615            | 18.16                     | 18.35 | 18.06 |
|                 |                            | 2595            | 18.17                     | 18.35 | 18.08 |
|                 |                            | 2575            | 18.10                     | 18.29 | 18.00 |
|                 | 1RB-Low                    | 2615            | 18.20                     | 18.38 | 18.10 |
|                 |                            | 2595            | 18.23                     | 18.38 | 18.10 |
|                 |                            | 2575            | 18.14                     | 18.30 | 18.02 |
|                 | 25RB-High                  | 2615            | 18.07                     | 18.13 | 18.16 |
|                 |                            | 2595            | 18.09                     | 18.12 | 18.16 |
|                 |                            | 2575            | 18.04                     | 18.07 | 18.11 |
|                 | 25RB-Middle                | 2615            | 18.10                     | 18.13 | 18.15 |
|                 |                            | 2595            | 18.12                     | 18.13 | 18.19 |
|                 |                            | 2575            | 18.05                     | 18.10 | 18.13 |
|                 | 25RB-Low                   | 2615            | 18.13                     | 18.19 | 18.22 |
|                 |                            | 2595            | 18.15                     | 18.19 | 18.25 |
|                 |                            | 2575            | 18.03                     | 18.10 | 18.13 |
|                 | 50RB                       | 2615            | 18.13                     | 18.16 | 18.16 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
| 15MHz | 1RB-High    | 2595   | 18.14 | 18.17 | 18.15 |
|       |             | 2575   | 18.09 | 18.12 | 18.09 |
|       |             | 2612.5 | 18.04 | 18.22 | 17.96 |
|       | 1RB-Middle  | 2595   | 18.06 | 18.23 | 17.98 |
|       |             | 2577.5 | 18.05 | 18.18 | 17.95 |
|       |             | 2612.5 | 18.12 | 18.30 | 18.03 |
|       | 1RB-Low     | 2595   | 18.17 | 18.31 | 18.08 |
|       |             | 2577.5 | 18.08 | 18.24 | 17.98 |
|       |             | 2612.5 | 18.13 | 18.31 | 18.04 |
|       | 36RB-High   | 2595   | 18.09 | 18.28 | 18.02 |
|       |             | 2577.5 | 18.04 | 18.22 | 17.98 |
|       |             | 2612.5 | 18.03 | 18.02 | 18.04 |
|       | 36RB-Middle | 2595   | 18.07 | 18.07 | 18.07 |
|       |             | 2577.5 | 18.04 | 18.05 | 18.08 |
|       |             | 2612.5 | 18.12 | 18.08 | 18.11 |
|       | 36RB-Low    | 2595   | 18.12 | 18.11 | 18.16 |
|       |             | 2577.5 | 18.09 | 18.05 | 18.08 |
|       |             | 2612.5 | 18.14 | 18.14 | 18.17 |
|       | 75RB        | 2595   | 18.13 | 18.13 | 18.15 |
|       |             | 2577.5 | 18.06 | 18.06 | 18.11 |
|       |             | 2612.5 | 18.12 | 18.13 | 18.14 |
| 20MHz | 1RB-High    | 2595   | 18.12 | 18.12 | 18.15 |
|       |             | 2577.5 | 18.09 | 18.09 | 18.09 |
|       |             | 2610   | 18.16 | 18.17 | 17.76 |
|       | 1RB-Middle  | 2595   | 18.08 | 18.10 | 17.68 |
|       |             | 2580   | 18.15 | 18.18 | 17.81 |
|       |             | 2610   | 18.22 | 18.23 | 17.83 |
|       | 1RB-Low     | 2595   | 18.27 | 18.27 | 17.86 |
|       |             | 2580   | 18.33 | 18.31 | 17.96 |
|       |             | 2610   | 18.18 | 18.21 | 17.82 |
|       | 50RB-High   | 2595   | 18.23 | 18.19 | 17.78 |
|       |             | 2580   | 18.16 | 18.16 | 17.77 |
|       |             | 2610   | 18.18 | 18.20 | 18.18 |
|       | 50RB-Middle | 2595   | 18.13 | 18.12 | 18.14 |
|       |             | 2580   | 18.15 | 18.13 | 18.16 |
|       |             | 2610   | 18.23 | 18.25 | 18.21 |
|       | 50RB-Low    | 2595   | 18.21 | 18.21 | 18.20 |
|       |             | 2580   | 18.18 | 18.23 | 18.22 |
|       |             | 2610   | 18.20 | 18.26 | 18.23 |
|       | 100RB       | 2595   | 18.20 | 18.23 | 18.22 |
|       |             | 2580   | 18.27 | 18.34 | 18.30 |
|       |             | 2610   | 18.18 | 18.20 | 18.18 |
|       |             | 2595   | 18.17 | 18.13 | 18.23 |
|       |             | 2580   | 18.19 | 18.20 | 18.20 |
|       |             | 2610   | 18.18 | 18.20 | 18.18 |

#### LTE Band38(ANT13 DSI4)

| Band 38         |               |                 |                           |       |       |
|-----------------|---------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 | RB offset     |                 | QPSK                      | 16QAM | 64QAM |
| 5MHz            | 1RB-High      | 2617.5          | 23.31                     | 22.39 | 21.17 |
|                 |               | 2595            | 23.32                     | 22.38 | 21.18 |
|                 |               | 2572.5          | 23.22                     | 22.32 | 21.09 |
|                 | 1RB-Middle    | 2617.5          | 23.36                     | 22.42 | 21.20 |
|                 |               | 2595            | 23.36                     | 22.42 | 21.25 |
|                 |               | 2572.5          | 23.22                     | 22.32 | 21.09 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       | 1RB-Low     | 2572.5 | 23.29 | 22.34 | 21.16 |
|       |             | 2617.5 | 23.33 | 22.38 | 21.20 |
|       |             | 2595   | 23.35 | 22.42 | 21.23 |
|       | 12RB-High   | 2572.5 | 23.25 | 22.32 | 21.14 |
|       |             | 2617.5 | 22.21 | 21.21 | 20.24 |
|       |             | 2595   | 22.21 | 21.23 | 20.24 |
|       | 12RB-Middle | 2572.5 | 22.15 | 21.14 | 20.17 |
|       |             | 2617.5 | 22.21 | 21.21 | 20.26 |
|       |             | 2595   | 22.24 | 21.25 | 20.28 |
|       | 12RB-Low    | 2572.5 | 22.13 | 21.16 | 20.16 |
|       |             | 2617.5 | 22.25 | 21.24 | 20.27 |
|       |             | 2595   | 22.29 | 21.29 | 20.31 |
|       | 25RB        | 2572.5 | 22.16 | 21.16 | 20.20 |
|       |             | 2617.5 | 22.22 | 21.25 | 20.26 |
|       |             | 2595   | 22.26 | 21.29 | 20.28 |
| 10MHz | 1RB-High    | 2572.5 | 22.16 | 21.20 | 20.19 |
|       |             | 2615   | 23.28 | 22.36 | 21.15 |
|       |             | 2595   | 23.26 | 22.37 | 21.14 |
|       | 1RB-Middle  | 2575   | 23.20 | 22.33 | 21.09 |
|       |             | 2615   | 23.30 | 22.43 | 21.21 |
|       |             | 2595   | 23.33 | 22.45 | 21.22 |
|       | 1RB-Low     | 2575   | 23.26 | 22.38 | 21.16 |
|       |             | 2615   | 23.33 | 22.42 | 21.22 |
|       |             | 2595   | 23.34 | 22.46 | 21.24 |
|       | 25RB-High   | 2575   | 23.25 | 22.36 | 21.14 |
|       |             | 2615   | 22.21 | 21.25 | 20.27 |
|       |             | 2595   | 22.20 | 21.24 | 20.25 |
|       | 25RB-Middle | 2575   | 22.16 | 21.20 | 20.21 |
|       |             | 2615   | 22.20 | 21.22 | 20.24 |
|       |             | 2595   | 22.22 | 21.25 | 20.26 |
|       | 25RB-Low    | 2575   | 22.18 | 21.22 | 20.20 |
|       |             | 2615   | 22.25 | 21.29 | 20.31 |
|       |             | 2595   | 22.27 | 21.31 | 20.31 |
| 15MHz | 1RB-High    | 2575   | 22.16 | 21.20 | 20.20 |
|       |             | 2615   | 22.26 | 21.28 | 20.25 |
|       |             | 2595   | 22.27 | 21.28 | 20.23 |
|       | 1RB-Middle  | 2575   | 22.20 | 21.24 | 20.17 |
|       |             | 2612.5 | 23.19 | 22.29 | 21.10 |
|       |             | 2595   | 23.20 | 22.30 | 21.10 |
|       | 1RB-Low     | 2577.5 | 23.19 | 22.29 | 21.07 |
|       |             | 2612.5 | 23.26 | 22.37 | 21.17 |
|       |             | 2595   | 23.32 | 22.42 | 21.22 |
|       | 36RB-High   | 2577.5 | 23.21 | 22.34 | 21.13 |
|       |             | 2612.5 | 23.25 | 22.36 | 21.16 |
|       |             | 2595   | 23.23 | 22.35 | 21.15 |
|       | 36RB-Middle | 2577.5 | 23.19 | 22.31 | 21.10 |
|       |             | 2612.5 | 22.15 | 21.15 | 20.13 |
|       |             | 2595   | 22.16 | 21.17 | 20.16 |
|       | 36RB-Low    | 2577.5 | 22.16 | 21.15 | 20.16 |
|       |             | 2612.5 | 22.22 | 21.20 | 20.20 |
|       |             | 2595   | 22.23 | 21.22 | 20.23 |
|       |             | 2577.5 | 22.17 | 21.18 | 20.16 |
|       |             | 2612.5 | 22.25 | 21.23 | 20.25 |
|       |             | 2595   | 22.23 | 21.22 | 20.21 |
|       |             | 2577.5 | 22.18 | 21.17 | 20.17 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
| 20MHz | 75RB        | 2612.5 | 22.23 | 21.25 | 20.22 |
|       |             | 2595   | 22.22 | 21.23 | 20.22 |
|       |             | 2577.5 | 22.20 | 21.20 | 20.18 |
|       | 1RB-High    | 2610   | 23.10 | 22.06 | 20.69 |
|       |             | 2595   | 23.03 | 22.00 | 20.66 |
|       |             | 2580   | 23.08 | 22.07 | 20.69 |
|       | 1RB-Middle  | 2610   | 23.28 | 22.18 | 20.85 |
|       |             | 2595   | 23.25 | 22.19 | 20.84 |
|       |             | 2580   | 23.26 | 22.14 | 20.78 |
|       | 1RB-Low     | 2610   | 23.13 | 22.12 | 20.76 |
|       |             | 2595   | 23.16 | 22.08 | 20.73 |
|       |             | 2580   | 23.12 | 22.09 | 20.73 |
|       | 50RB-High   | 2610   | 22.11 | 21.12 | 20.07 |
|       |             | 2595   | 22.06 | 21.07 | 20.04 |
|       |             | 2580   | 22.10 | 21.10 | 20.08 |
|       | 50RB-Middle | 2610   | 22.15 | 21.17 | 20.13 |
|       |             | 2595   | 22.14 | 21.15 | 20.13 |
|       |             | 2580   | 22.15 | 21.16 | 20.12 |
|       | 50RB-Low    | 2610   | 22.17 | 21.19 | 20.13 |
|       |             | 2595   | 22.16 | 21.18 | 20.14 |
|       |             | 2580   | 22.15 | 21.16 | 20.12 |
|       | 100RB       | 2610   | 22.13 | 21.13 | 20.09 |
|       |             | 2595   | 22.11 | 21.12 | 20.10 |
|       |             | 2580   | 22.11 | 21.13 | 20.11 |

#### LTE Band38(ANT13 DSI8/9/10)

| Band 38         |                            |                 |                           |       |       |
|-----------------|----------------------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation<br>RB offset | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 |                            |                 | QPSK                      | 16QAM | 64QAM |
| 5MHz            | 1RB-High                   | 2617.5          | 21.67                     | 21.80 | 21.10 |
|                 |                            | 2595            | 21.67                     | 21.82 | 21.09 |
|                 |                            | 2572.5          | 21.60                     | 21.73 | 21.02 |
|                 | 1RB-Middle                 | 2617.5          | 21.72                     | 21.84 | 21.14 |
|                 |                            | 2595            | 21.76                     | 21.84 | 21.17 |
|                 |                            | 2572.5          | 21.65                     | 21.78 | 21.08 |
|                 | 1RB-Low                    | 2617.5          | 21.68                     | 21.81 | 21.12 |
|                 |                            | 2595            | 21.73                     | 21.83 | 21.15 |
|                 |                            | 2572.5          | 21.61                     | 21.75 | 21.04 |
|                 | 12RB-High                  | 2617.5          | 21.62                     | 21.12 | 20.18 |
|                 |                            | 2595            | 21.63                     | 21.13 | 20.17 |
|                 |                            | 2572.5          | 21.54                     | 21.06 | 20.08 |
|                 | 12RB-Middle                | 2617.5          | 21.62                     | 21.11 | 20.15 |
|                 |                            | 2595            | 21.67                     | 21.16 | 20.18 |
|                 |                            | 2572.5          | 21.55                     | 21.05 | 20.07 |
|                 | 12RB-Low                   | 2617.5          | 21.65                     | 21.16 | 20.19 |
|                 |                            | 2595            | 21.69                     | 21.20 | 20.22 |
|                 |                            | 2572.5          | 21.57                     | 21.07 | 20.12 |
|                 | 25RB                       | 2617.5          | 21.63                     | 21.15 | 20.18 |
|                 |                            | 2595            | 21.66                     | 21.20 | 20.20 |
|                 |                            | 2572.5          | 21.56                     | 21.10 | 20.08 |
| 10MHz           | 1RB-High                   | 2615            | 21.61                     | 21.78 | 21.07 |
|                 |                            | 2595            | 21.61                     | 21.79 | 21.06 |
|                 |                            | 2575            | 21.56                     | 21.75 | 20.99 |
|                 | 1RB-Middle                 | 2615            | 21.68                     | 21.84 | 21.12 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       |             | 2595   | 21.70 | 21.87 | 21.12 |
|       |             | 2575   | 21.62 | 21.78 | 21.04 |
|       |             | 2615   | 21.68 | 21.85 | 21.14 |
|       | 1RB-Low     | 2595   | 21.71 | 21.87 | 21.15 |
|       |             | 2575   | 21.61 | 21.78 | 21.04 |
|       |             | 2615   | 21.61 | 21.16 | 20.19 |
|       | 25RB-High   | 2595   | 21.61 | 21.14 | 20.16 |
|       |             | 2575   | 21.57 | 21.11 | 20.12 |
|       |             | 2615   | 21.61 | 21.16 | 20.15 |
|       | 25RB-Middle | 2595   | 21.64 | 21.17 | 20.19 |
|       |             | 2575   | 21.58 | 21.13 | 20.11 |
|       |             | 2615   | 21.66 | 21.20 | 20.21 |
|       | 25RB-Low    | 2595   | 21.67 | 21.22 | 20.22 |
|       |             | 2575   | 21.56 | 21.10 | 20.11 |
|       |             | 2615   | 21.67 | 21.18 | 20.16 |
| 15MHz | 50RB        | 2595   | 21.65 | 21.20 | 20.15 |
|       |             | 2575   | 21.61 | 21.14 | 20.08 |
|       |             | 2615   | 21.67 | 21.18 | 20.16 |
|       | 1RB-High    | 2612.5 | 21.54 | 21.74 | 21.02 |
|       |             | 2595   | 21.54 | 21.71 | 21.02 |
|       |             | 2577.5 | 21.53 | 21.72 | 20.99 |
|       | 1RB-Middle  | 2612.5 | 21.61 | 21.80 | 21.10 |
|       |             | 2595   | 21.66 | 21.85 | 21.14 |
|       |             | 2577.5 | 21.58 | 21.77 | 21.04 |
|       | 1RB-Low     | 2612.5 | 21.62 | 21.80 | 21.08 |
|       |             | 2595   | 21.61 | 21.79 | 21.07 |
|       |             | 2577.5 | 21.53 | 21.75 | 21.02 |
|       | 36RB-High   | 2612.5 | 21.54 | 21.04 | 20.05 |
|       |             | 2595   | 21.56 | 21.08 | 20.08 |
|       |             | 2577.5 | 21.57 | 21.07 | 20.08 |
|       | 36RB-Middle | 2612.5 | 21.61 | 21.13 | 20.11 |
|       |             | 2595   | 21.62 | 21.14 | 20.13 |
|       |             | 2577.5 | 21.56 | 21.08 | 20.08 |
|       | 36RB-Low    | 2612.5 | 21.65 | 21.15 | 20.17 |
|       |             | 2595   | 21.62 | 21.14 | 20.14 |
|       |             | 2577.5 | 21.56 | 21.09 | 20.08 |
|       | 75RB        | 2612.5 | 21.65 | 21.16 | 20.14 |
|       |             | 2595   | 21.62 | 21.15 | 20.12 |
|       |             | 2577.5 | 21.61 | 21.13 | 20.09 |
| 20MHz | 1RB-High    | 2610   | 21.54 | 21.54 | 20.66 |
|       |             | 2595   | 21.45 | 21.48 | 20.62 |
|       |             | 2580   | 21.52 | 21.52 | 20.67 |
|       | 1RB-Middle  | 2610   | 21.61 | 21.62 | 20.76 |
|       |             | 2595   | 21.68 | 21.66 | 20.82 |
|       |             | 2580   | 21.67 | 21.67 | 20.82 |
|       | 1RB-Low     | 2610   | 21.58 | 21.57 | 20.73 |
|       |             | 2595   | 21.58 | 21.57 | 20.73 |
|       |             | 2580   | 21.53 | 21.54 | 20.70 |
|       | 50RB-High   | 2610   | 21.57 | 21.08 | 20.05 |
|       |             | 2595   | 21.52 | 21.05 | 20.01 |
|       |             | 2580   | 21.57 | 21.07 | 20.06 |
|       | 50RB-Middle | 2610   | 21.62 | 21.14 | 20.11 |
|       |             | 2595   | 21.60 | 21.12 | 20.09 |
|       |             | 2580   | 21.61 | 21.13 | 20.08 |
|       | 50RB-Low    | 2610   | 21.62 | 21.15 | 20.10 |
|       |             | 2595   | 21.64 | 21.17 | 20.11 |

|  |       |      |       |       |       |
|--|-------|------|-------|-------|-------|
|  | 100RB | 2580 | 21.61 | 21.14 | 20.10 |
|  |       | 2610 | 21.58 | 21.09 | 20.06 |
|  |       | 2595 | 21.59 | 21.11 | 20.08 |
|  |       | 2580 | 21.58 | 21.09 | 20.07 |

**LTE Band38(ANT31 DSI2/3/4/10)**

| Band 38         |                            |                 |                           |       |       |
|-----------------|----------------------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation<br>RB offset | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 |                            |                 | QPSK                      | 16QAM | 64QAM |
| 5MHz            | 1RB-High                   | 2617.5          | 23.21                     | 22.27 | 21.06 |
|                 |                            | 2595            | 23.36                     | 22.42 | 21.21 |
|                 |                            | 2572.5          | 23.37                     | 22.45 | 21.25 |
|                 | 1RB-Middle                 | 2617.5          | 23.25                     | 22.31 | 21.13 |
|                 |                            | 2595            | 23.44                     | 22.48 | 21.31 |
|                 |                            | 2572.5          | 23.41                     | 22.48 | 21.27 |
|                 | 1RB-Low                    | 2617.5          | 23.23                     | 22.29 | 21.11 |
|                 |                            | 2595            | 23.42                     | 22.48 | 21.29 |
|                 |                            | 2572.5          | 23.38                     | 22.43 | 21.25 |
|                 | 12RB-High                  | 2617.5          | 22.11                     | 21.11 | 20.16 |
|                 |                            | 2595            | 22.27                     | 21.26 | 20.31 |
|                 |                            | 2572.5          | 22.29                     | 21.27 | 20.31 |
|                 | 12RB-Middle                | 2617.5          | 22.13                     | 21.11 | 20.14 |
|                 |                            | 2595            | 22.31                     | 21.30 | 20.34 |
|                 |                            | 2572.5          | 22.26                     | 21.28 | 20.28 |
|                 | 12RB-Low                   | 2617.5          | 22.13                     | 21.15 | 20.19 |
|                 |                            | 2595            | 22.35                     | 21.32 | 20.36 |
|                 |                            | 2572.5          | 22.31                     | 21.30 | 20.32 |
|                 | 25RB                       | 2617.5          | 22.12                     | 21.16 | 20.15 |
|                 |                            | 2595            | 22.30                     | 21.34 | 20.34 |
|                 |                            | 2572.5          | 22.27                     | 21.34 | 20.30 |
| 10MHz           | 1RB-High                   | 2615            | 23.18                     | 22.25 | 21.04 |
|                 |                            | 2595            | 23.31                     | 22.39 | 21.16 |
|                 |                            | 2575            | 23.34                     | 22.46 | 21.21 |
|                 | 1RB-Middle                 | 2615            | 23.22                     | 22.33 | 21.10 |
|                 |                            | 2595            | 23.40                     | 22.51 | 21.28 |
|                 |                            | 2575            | 23.40                     | 22.51 | 21.27 |
|                 | 1RB-Low                    | 2615            | 23.27                     | 22.37 | 21.14 |
|                 |                            | 2595            | 23.44                     | 22.55 | 21.32 |
|                 |                            | 2575            | 23.37                     | 22.49 | 21.23 |
|                 | 25RB-High                  | 2615            | 22.09                     | 21.14 | 20.15 |
|                 |                            | 2595            | 22.26                     | 21.28 | 20.29 |
|                 |                            | 2575            | 22.31                     | 21.34 | 20.33 |
|                 | 25RB-Middle                | 2615            | 22.11                     | 21.14 | 20.15 |
|                 |                            | 2595            | 22.28                     | 21.31 | 20.31 |
|                 |                            | 2575            | 22.30                     | 21.35 | 20.34 |
|                 | 25RB-Low                   | 2615            | 22.17                     | 21.22 | 20.21 |
|                 |                            | 2595            | 22.34                     | 21.39 | 20.38 |
|                 |                            | 2575            | 22.29                     | 21.33 | 20.32 |
|                 | 50RB                       | 2615            | 22.16                     | 21.19 | 20.13 |
|                 |                            | 2595            | 22.32                     | 21.33 | 20.27 |
|                 |                            | 2575            | 22.34                     | 21.37 | 20.31 |
| 15MHz           | 1RB-High                   | 2612.5          | 23.09                     | 22.19 | 20.97 |
|                 |                            | 2595            | 23.19                     | 22.30 | 21.10 |
|                 |                            | 2577.5          | 23.30                     | 22.42 | 21.20 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       | 1RB-Middle  | 2612.5 | 23.17 | 22.31 | 21.07 |
|       |             | 2595   | 23.36 | 22.48 | 21.27 |
|       |             | 2577.5 | 23.34 | 22.48 | 21.27 |
|       | 1RB-Low     | 2612.5 | 23.20 | 22.33 | 21.12 |
|       |             | 2595   | 23.34 | 22.46 | 21.24 |
|       |             | 2577.5 | 23.30 | 22.43 | 21.23 |
|       | 36RB-High   | 2612.5 | 22.04 | 21.05 | 20.04 |
|       |             | 2595   | 22.19 | 21.21 | 20.20 |
|       |             | 2577.5 | 22.31 | 21.29 | 20.30 |
|       | 36RB-Middle | 2612.5 | 22.14 | 21.13 | 20.14 |
|       |             | 2595   | 22.29 | 21.30 | 20.30 |
|       |             | 2577.5 | 22.32 | 21.31 | 20.31 |
|       | 36RB-Low    | 2612.5 | 22.20 | 21.20 | 20.22 |
|       |             | 2595   | 22.31 | 21.31 | 20.33 |
|       |             | 2577.5 | 22.32 | 21.30 | 20.29 |
|       | 75RB        | 2612.5 | 22.16 | 21.19 | 20.16 |
|       |             | 2595   | 22.27 | 21.28 | 20.28 |
|       |             | 2577.5 | 22.33 | 21.34 | 20.34 |
| 20MHz | 1RB-High    | 2610   | 22.97 | 21.93 | 20.57 |
|       |             | 2595   | 22.96 | 21.92 | 20.57 |
|       |             | 2580   | 23.12 | 22.06 | 20.74 |
|       | 1RB-Middle  | 2610   | 23.09 | 22.02 | 20.68 |
|       |             | 2595   | 23.22 | 22.16 | 20.81 |
|       |             | 2580   | 23.28 | 22.24 | 20.88 |
|       | 1RB-Low     | 2610   | 23.11 | 22.05 | 20.69 |
|       |             | 2595   | 23.20 | 22.12 | 20.78 |
|       |             | 2580   | 23.18 | 22.10 | 20.77 |
|       | 50RB-High   | 2610   | 21.96 | 20.98 | 19.94 |
|       |             | 2595   | 22.02 | 21.02 | 19.99 |
|       |             | 2580   | 22.14 | 21.16 | 20.12 |
|       | 50RB-Middle | 2610   | 22.05 | 21.06 | 20.04 |
|       |             | 2595   | 22.13 | 21.13 | 20.10 |
|       |             | 2580   | 22.19 | 21.21 | 20.17 |
|       | 50RB-Low    | 2610   | 22.07 | 21.10 | 20.06 |
|       |             | 2595   | 22.17 | 21.19 | 20.14 |
|       |             | 2580   | 22.20 | 21.21 | 20.17 |
|       | 100RB       | 2610   | 22.00 | 21.02 | 19.99 |
|       |             | 2595   | 22.08 | 21.10 | 20.06 |
|       |             | 2580   | 22.15 | 21.17 | 20.11 |

#### LTE Band41(ANT13 DSI2/3)

| Band 41         |               |                 |                           |       |       |
|-----------------|---------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 | RB offset     |                 | QPSK                      | 16QAM | 64QAM |
| 5MHz            | 1RB-High      | 2687.5          | 16.75                     | 16.77 | 16.40 |
|                 |               | 2640.3          | 16.92                     | 16.93 | 16.59 |
|                 |               | 2593            | 16.93                     | 16.93 | 16.60 |
|                 |               | 2545.8          | 16.99                     | 16.97 | 16.65 |
|                 |               | 2498.5          | 16.65                     | 16.62 | 16.33 |
|                 | 1RB-Middle    | 2687.5          | 16.78                     | 16.77 | 16.38 |
|                 |               | 2640.3          | 16.95                     | 16.93 | 16.62 |
|                 |               | 2593            | 16.99                     | 16.93 | 16.66 |
|                 |               | 2545.8          | 17.03                     | 17.00 | 16.69 |
|                 |               | 2498.5          | 16.63                     | 16.57 | 16.30 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       | 1RB-Low     | 2687.5 | 16.78 | 16.76 | 16.40 |
|       |             | 2640.3 | 16.98 | 16.96 | 16.64 |
|       |             | 2593   | 16.98 | 16.95 | 16.64 |
|       |             | 2545.8 | 16.99 | 16.95 | 16.67 |
|       |             | 2498.5 | 16.60 | 16.55 | 16.25 |
|       | 12RB-High   | 2687.5 | 16.71 | 16.64 | 16.72 |
|       |             | 2640.3 | 16.89 | 16.84 | 16.93 |
|       |             | 2593   | 16.84 | 16.80 | 16.88 |
|       |             | 2545.8 | 16.94 | 16.90 | 16.97 |
|       |             | 2498.5 | 16.53 | 16.50 | 16.57 |
|       | 12RB-Middle | 2687.5 | 16.72 | 16.68 | 16.76 |
|       |             | 2640.3 | 16.86 | 16.83 | 16.92 |
|       |             | 2593   | 16.87 | 16.82 | 16.90 |
|       |             | 2545.8 | 16.94 | 16.89 | 16.99 |
|       |             | 2498.5 | 16.52 | 16.48 | 16.57 |
|       | 12RB-Low    | 2687.5 | 16.70 | 16.65 | 16.76 |
|       |             | 2640.3 | 16.91 | 16.87 | 16.96 |
|       |             | 2593   | 16.89 | 16.84 | 16.93 |
|       |             | 2545.8 | 16.92 | 16.88 | 16.97 |
|       |             | 2498.5 | 16.53 | 16.48 | 16.57 |
|       | 25RB        | 2687.5 | 16.71 | 16.75 | 16.79 |
|       |             | 2640.3 | 16.90 | 16.94 | 16.98 |
|       |             | 2593   | 16.88 | 16.92 | 16.93 |
|       |             | 2545.8 | 16.91 | 16.96 | 16.99 |
|       |             | 2498.5 | 16.53 | 16.58 | 16.60 |
| 10MHz | 1RB-High    | 2685   | 16.73 | 16.75 | 16.36 |
|       |             | 2639   | 16.87 | 16.86 | 16.53 |
|       |             | 2593   | 16.90 | 16.89 | 16.56 |
|       |             | 2547   | 16.90 | 16.90 | 16.56 |
|       |             | 2501   | 16.65 | 16.64 | 16.34 |
|       | 1RB-Middle  | 2685   | 16.74 | 16.76 | 16.38 |
|       |             | 2639   | 16.93 | 16.95 | 16.60 |
|       |             | 2593   | 16.93 | 16.95 | 16.62 |
|       |             | 2547   | 17.00 | 16.98 | 16.65 |
|       |             | 2501   | 16.61 | 16.61 | 16.29 |
|       | 1RB-Low     | 2685   | 16.72 | 16.74 | 16.36 |
|       |             | 2639   | 16.96 | 16.96 | 16.61 |
|       |             | 2593   | 16.90 | 16.92 | 16.57 |
|       |             | 2547   | 16.97 | 16.99 | 16.65 |
|       |             | 2501   | 16.55 | 16.53 | 16.22 |
|       | 25RB-High   | 2685   | 16.69 | 16.76 | 16.77 |
|       |             | 2639   | 16.86 | 16.89 | 16.93 |
|       |             | 2593   | 16.86 | 16.87 | 16.91 |
|       |             | 2547   | 16.86 | 16.94 | 16.98 |
|       |             | 2501   | 16.56 | 16.62 | 16.66 |
|       | 25RB-Middle | 2685   | 16.70 | 16.74 | 16.78 |
|       |             | 2639   | 16.89 | 16.91 | 16.96 |
|       |             | 2593   | 16.85 | 16.87 | 16.90 |
|       |             | 2547   | 16.95 | 16.96 | 17.00 |
|       |             | 2501   | 16.51 | 16.59 | 16.61 |
|       | 25RB-Low    | 2685   | 16.68 | 16.71 | 16.76 |
|       |             | 2639   | 16.93 | 16.97 | 17.00 |
|       |             | 2593   | 16.84 | 16.90 | 16.93 |
|       |             | 2547   | 16.90 | 16.96 | 16.99 |
|       |             | 2501   | 16.49 | 16.55 | 16.57 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       | 50RB        | 2685   | 16.71 | 16.74 | 16.73 |
|       |             | 2639   | 16.91 | 16.97 | 16.93 |
|       |             | 2593   | 16.84 | 16.88 | 16.89 |
|       |             | 2547   | 16.93 | 16.97 | 16.97 |
|       |             | 2501   | 16.54 | 16.58 | 16.58 |
| 15MHz | 1RB-High    | 2682.5 | 16.63 | 16.68 | 16.30 |
|       |             | 2637.8 | 16.78 | 16.81 | 16.46 |
|       |             | 2593   | 16.82 | 16.83 | 16.49 |
|       |             | 2548.3 | 16.80 | 16.83 | 16.48 |
|       |             | 2503.5 | 16.65 | 16.66 | 16.36 |
|       | 1RB-Middle  | 2682.5 | 16.72 | 16.75 | 16.37 |
|       |             | 2637.8 | 16.95 | 16.96 | 16.61 |
|       |             | 2593   | 16.93 | 16.94 | 16.61 |
|       |             | 2548.3 | 16.96 | 16.98 | 16.65 |
|       |             | 2503.5 | 16.60 | 16.62 | 16.32 |
|       | 1RB-Low     | 2682.5 | 16.65 | 16.68 | 16.32 |
|       |             | 2637.8 | 16.89 | 16.92 | 16.57 |
|       |             | 2593   | 16.85 | 16.88 | 16.54 |
|       |             | 2548.3 | 16.91 | 16.92 | 16.60 |
|       |             | 2503.5 | 16.45 | 16.47 | 16.16 |
|       | 36RB-High   | 2682.5 | 16.64 | 16.65 | 16.69 |
|       |             | 2637.8 | 16.85 | 16.84 | 16.86 |
|       |             | 2593   | 16.81 | 16.79 | 16.83 |
|       |             | 2548.3 | 16.85 | 16.86 | 16.87 |
|       |             | 2503.5 | 16.58 | 16.59 | 16.64 |
|       | 36RB-Middle | 2682.5 | 16.66 | 16.65 | 16.69 |
|       |             | 2637.8 | 16.89 | 16.87 | 16.91 |
|       |             | 2593   | 16.83 | 16.81 | 16.85 |
|       |             | 2548.3 | 16.87 | 16.88 | 16.91 |
|       |             | 2503.5 | 16.55 | 16.56 | 16.60 |
|       | 36RB-Low    | 2682.5 | 16.66 | 16.66 | 16.70 |
|       |             | 2637.8 | 16.90 | 16.89 | 16.93 |
|       |             | 2593   | 16.82 | 16.84 | 16.89 |
|       |             | 2548.3 | 16.88 | 16.89 | 16.95 |
|       |             | 2503.5 | 16.50 | 16.48 | 16.53 |
|       | 75RB        | 2682.5 | 16.70 | 16.71 | 16.72 |
|       |             | 2637.8 | 16.91 | 16.92 | 16.93 |
|       |             | 2593   | 16.88 | 16.90 | 16.92 |
|       |             | 2548.3 | 16.88 | 16.94 | 16.94 |
|       |             | 2503.5 | 16.57 | 16.61 | 16.63 |
| 20MHz | 1RB-High    | 2680   | 16.46 | 16.48 | 16.11 |
|       |             | 2636.5 | 16.48 | 16.50 | 16.12 |
|       |             | 2593   | 16.38 | 16.37 | 16.03 |
|       |             | 2549.5 | 16.37 | 16.37 | 16.02 |
|       |             | 2506   | 16.21 | 16.18 | 15.87 |
|       | 1RB-Middle  | 2680   | 16.61 | 16.61 | 16.24 |
|       |             | 2636.5 | 16.62 | 16.61 | 16.24 |
|       |             | 2593   | 16.61 | 16.59 | 16.24 |
|       |             | 2549.5 | 16.50 | 16.47 | 16.14 |
|       |             | 2506   | 16.26 | 16.22 | 15.90 |
|       | 1RB-Low     | 2680   | 16.57 | 16.57 | 16.21 |
|       |             | 2636.5 | 16.56 | 16.55 | 16.19 |
|       |             | 2593   | 16.56 | 16.53 | 16.18 |
|       |             | 2549.5 | 16.42 | 16.39 | 16.07 |
|       |             | 2506   | 16.13 | 16.10 | 15.77 |

|  |             |        |       |       |       |
|--|-------------|--------|-------|-------|-------|
|  | 50RB-High   | 2680   | 16.55 | 16.59 | 16.58 |
|  |             | 2636.5 | 16.54 | 16.56 | 16.59 |
|  |             | 2593   | 16.48 | 16.51 | 16.50 |
|  |             | 2549.5 | 16.43 | 16.48 | 16.47 |
|  |             | 2506   | 16.21 | 16.30 | 16.27 |
|  | 50RB-Middle | 2680   | 16.58 | 16.60 | 16.60 |
|  |             | 2636.5 | 16.59 | 16.64 | 16.62 |
|  |             | 2593   | 16.50 | 16.53 | 16.52 |
|  |             | 2549.5 | 16.44 | 16.48 | 16.47 |
|  |             | 2506   | 16.22 | 16.27 | 16.26 |
|  | 50RB-Low    | 2680   | 16.59 | 16.66 | 16.62 |
|  |             | 2636.5 | 16.63 | 16.68 | 16.64 |
|  |             | 2593   | 16.56 | 16.60 | 16.54 |
|  |             | 2549.5 | 16.44 | 16.51 | 16.49 |
|  |             | 2506   | 16.18 | 16.22 | 16.19 |
|  | 100RB       | 2680   | 16.58 | 16.60 | 16.59 |
|  |             | 2636.5 | 16.60 | 16.61 | 16.61 |
|  |             | 2593   | 16.51 | 16.53 | 16.52 |
|  |             | 2549.5 | 16.43 | 16.47 | 16.45 |
|  |             | 2506   | 16.22 | 16.23 | 16.23 |

#### LTE Band41(ANT13 DSI4)

| Band 41         |               |                 |                           |       |       |
|-----------------|---------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 | RB offset     |                 | QPSK                      | 16QAM | 64QAM |
| 5MHz            | 1RB-High      | 2687.5          | 23.12                     | 22.03 | 20.68 |
|                 |               | 2640.3          | 23.28                     | 22.20 | 20.88 |
|                 |               | 2593            | 23.37                     | 22.33 | 20.96 |
|                 |               | 2545.8          | 23.43                     | 22.36 | 21.04 |
|                 |               | 2498.5          | 23.12                     | 22.09 | 20.70 |
|                 | 1RB-Middle    | 2687.5          | 23.12                     | 22.06 | 20.70 |
|                 |               | 2640.3          | 23.34                     | 22.23 | 20.93 |
|                 |               | 2593            | 23.44                     | 22.35 | 21.00 |
|                 |               | 2545.8          | 23.53                     | 22.41 | 21.08 |
|                 |               | 2498.5          | 23.12                     | 22.04 | 20.69 |
|                 | 1RB-Low       | 2687.5          | 23.13                     | 22.07 | 20.70 |
|                 |               | 2640.3          | 23.34                     | 22.24 | 20.94 |
|                 |               | 2593            | 23.43                     | 22.35 | 20.99 |
|                 |               | 2545.8          | 23.48                     | 22.37 | 21.06 |
|                 |               | 2498.5          | 23.07                     | 22.00 | 20.64 |
|                 | 12RB-High     | 2687.5          | 22.01                     | 20.92 | 19.98 |
|                 |               | 2640.3          | 22.18                     | 21.12 | 20.18 |
|                 |               | 2593            | 22.24                     | 21.16 | 20.23 |
|                 |               | 2545.8          | 22.36                     | 21.25 | 20.33 |
|                 |               | 2498.5          | 21.99                     | 20.89 | 19.97 |
|                 | 12RB-Middle   | 2687.5          | 22.06                     | 20.97 | 20.01 |
|                 |               | 2640.3          | 22.20                     | 21.12 | 20.18 |
|                 |               | 2593            | 22.28                     | 21.19 | 20.26 |
|                 |               | 2545.8          | 22.37                     | 21.28 | 20.35 |
|                 |               | 2498.5          | 21.97                     | 20.90 | 19.96 |
|                 | 12RB-Low      | 2687.5          | 22.03                     | 20.94 | 20.02 |
|                 |               | 2640.3          | 22.24                     | 21.15 | 20.24 |
|                 |               | 2593            | 22.31                     | 21.22 | 20.28 |
|                 |               | 2545.8          | 22.35                     | 21.26 | 20.34 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       | 25RB        | 2498.5 | 21.97 | 20.90 | 19.96 |
|       |             | 2687.5 | 22.06 | 21.05 | 20.05 |
|       |             | 2640.3 | 22.24 | 21.25 | 20.25 |
|       |             | 2593   | 22.29 | 21.28 | 20.28 |
|       |             | 2545.8 | 22.33 | 21.36 | 20.34 |
|       |             | 2498.5 | 21.99 | 21.00 | 20.00 |
| 10MHz | 1RB-High    | 2685   | 23.06 | 21.99 | 20.65 |
|       |             | 2639   | 23.19 | 22.12 | 20.83 |
|       |             | 2593   | 23.27 | 22.30 | 20.91 |
|       |             | 2547   | 23.30 | 22.29 | 20.96 |
|       |             | 2501   | 23.11 | 22.10 | 20.71 |
|       |             | 2685   | 23.09 | 22.05 | 20.70 |
|       | 1RB-Middle  | 2639   | 23.26 | 22.19 | 20.94 |
|       |             | 2593   | 23.37 | 22.36 | 21.02 |
|       |             | 2547   | 23.44 | 22.42 | 21.09 |
|       |             | 2501   | 23.07 | 22.08 | 20.69 |
|       |             | 2685   | 23.05 | 22.00 | 20.65 |
|       |             | 2639   | 23.28 | 22.21 | 20.96 |
|       | 1RB-Low     | 2593   | 23.31 | 22.32 | 20.97 |
|       |             | 2547   | 23.40 | 22.37 | 21.05 |
|       |             | 2501   | 22.98 | 22.00 | 20.61 |
|       |             | 2685   | 22.02 | 21.02 | 20.07 |
|       |             | 2639   | 22.13 | 21.15 | 20.21 |
|       |             | 2593   | 22.22 | 21.24 | 20.26 |
|       | 25RB-High   | 2547   | 22.29 | 21.32 | 20.33 |
|       |             | 2501   | 22.01 | 21.06 | 20.06 |
|       |             | 2685   | 21.99 | 21.00 | 20.04 |
|       |             | 2639   | 22.17 | 21.19 | 20.22 |
|       |             | 2593   | 22.19 | 21.24 | 20.26 |
|       |             | 2547   | 22.31 | 21.38 | 20.36 |
|       | 25RB-Middle | 2501   | 21.94 | 21.01 | 20.01 |
|       |             | 2685   | 21.98 | 20.98 | 20.03 |
|       |             | 2639   | 22.21 | 21.23 | 20.27 |
|       |             | 2593   | 22.21 | 21.26 | 20.28 |
|       |             | 2547   | 22.29 | 21.35 | 20.36 |
|       |             | 2501   | 21.92 | 20.96 | 19.97 |
|       | 25RB-Low    | 2685   | 22.01 | 21.02 | 20.02 |
|       |             | 2639   | 22.17 | 21.19 | 20.22 |
|       |             | 2593   | 22.21 | 21.28 | 20.24 |
|       |             | 2547   | 22.29 | 21.34 | 20.34 |
|       |             | 2501   | 21.95 | 21.00 | 19.97 |
|       | 50RB        | 2685   | 22.01 | 21.02 | 20.02 |
|       |             | 2639   | 22.17 | 21.19 | 20.22 |
|       |             | 2593   | 22.21 | 21.28 | 20.24 |
|       |             | 2547   | 22.29 | 21.34 | 20.34 |
|       |             | 2501   | 21.95 | 21.00 | 19.97 |
|       |             | 2682.5 | 23.02 | 21.98 | 20.59 |
| 15MHz | 1RB-High    | 2637.8 | 23.17 | 22.11 | 20.79 |
|       |             | 2593   | 23.25 | 22.24 | 20.88 |
|       |             | 2548.3 | 23.27 | 22.23 | 20.86 |
|       |             | 2503.5 | 23.15 | 22.16 | 20.76 |
|       |             | 2682.5 | 23.09 | 22.05 | 20.66 |
|       |             | 2637.8 | 23.32 | 22.26 | 20.95 |
|       | 1RB-Middle  | 2593   | 23.37 | 22.36 | 20.98 |
|       |             | 2548.3 | 23.44 | 22.39 | 21.04 |
|       |             | 2503.5 | 23.11 | 22.10 | 20.72 |
|       |             | 2682.5 | 23.04 | 21.99 | 20.62 |
|       |             | 2637.8 | 23.29 | 22.23 | 20.91 |
|       |             | 2593   | 23.33 | 22.31 | 20.92 |
|       | 1RB-Low     | 2548.3 | 23.40 | 22.33 | 21.00 |
|       |             |        |       |       |       |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       | 36RB-High   | 2503.5 | 22.96 | 21.96 | 20.55 |
|       |             | 2682.5 | 21.97 | 20.94 | 19.95 |
|       |             | 2637.8 | 22.17 | 21.15 | 20.15 |
|       |             | 2593   | 22.20 | 21.19 | 20.18 |
|       |             | 2548.3 | 22.27 | 21.24 | 20.22 |
|       | 36RB-Middle | 2503.5 | 22.04 | 21.02 | 20.01 |
|       |             | 2682.5 | 21.95 | 20.95 | 19.96 |
|       |             | 2637.8 | 22.20 | 21.19 | 20.19 |
|       |             | 2593   | 22.21 | 21.20 | 20.18 |
|       |             | 2548.3 | 22.30 | 21.28 | 20.28 |
|       | 36RB-Low    | 2503.5 | 22.01 | 20.99 | 19.99 |
|       |             | 2682.5 | 21.98 | 20.92 | 19.95 |
|       |             | 2637.8 | 22.22 | 21.21 | 20.22 |
|       |             | 2593   | 22.23 | 21.22 | 20.22 |
|       |             | 2548.3 | 22.31 | 21.29 | 20.28 |
|       | 75RB        | 2503.5 | 21.92 | 20.90 | 19.90 |
|       |             | 2682.5 | 22.00 | 21.00 | 19.99 |
|       |             | 2637.8 | 22.23 | 21.24 | 20.21 |
|       |             | 2593   | 22.28 | 21.28 | 20.25 |
|       |             | 2548.3 | 22.32 | 21.32 | 20.30 |
| 20MHz | 1RB-High    | 2503.5 | 22.05 | 21.03 | 20.03 |
|       |             | 2680   | 22.99 | 21.96 | 20.55 |
|       |             | 2636.5 | 22.97 | 21.91 | 20.56 |
|       |             | 2593   | 22.90 | 21.86 | 20.44 |
|       |             | 2549.5 | 22.85 | 21.83 | 20.46 |
|       | 1RB-Middle  | 2506   | 22.73 | 21.69 | 20.28 |
|       |             | 2680   | 23.11 | 22.05 | 20.67 |
|       |             | 2636.5 | 23.14 | 22.09 | 20.73 |
|       |             | 2593   | 23.12 | 22.07 | 20.68 |
|       |             | 2549.5 | 23.02 | 21.97 | 20.58 |
|       | 1RB-Low     | 2506   | 22.78 | 21.73 | 20.34 |
|       |             | 2680   | 23.09 | 22.02 | 20.66 |
|       |             | 2636.5 | 23.03 | 21.99 | 20.63 |
|       |             | 2593   | 23.05 | 22.02 | 20.59 |
|       |             | 2549.5 | 22.93 | 21.87 | 20.53 |
|       | 50RB-High   | 2506   | 22.63 | 21.61 | 20.22 |
|       |             | 2680   | 22.03 | 21.03 | 20.01 |
|       |             | 2636.5 | 22.01 | 21.03 | 19.97 |
|       |             | 2593   | 21.94 | 20.96 | 19.90 |
|       |             | 2549.5 | 21.93 | 20.92 | 19.87 |
|       | 50RB-Middle | 2506   | 21.72 | 20.72 | 19.68 |
|       |             | 2680   | 22.06 | 21.06 | 20.03 |
|       |             | 2636.5 | 22.09 | 21.10 | 20.06 |
|       |             | 2593   | 21.96 | 21.00 | 19.93 |
|       |             | 2549.5 | 21.95 | 20.94 | 19.89 |
|       | 50RB-Low    | 2506   | 21.71 | 20.73 | 19.66 |
|       |             | 2680   | 22.08 | 21.08 | 20.04 |
|       |             | 2636.5 | 22.07 | 21.07 | 20.06 |
|       |             | 2593   | 22.02 | 21.02 | 19.97 |
|       |             | 2549.5 | 21.92 | 20.95 | 19.90 |
|       | 100RB       | 2506   | 21.67 | 20.63 | 19.63 |
|       |             | 2680   | 22.03 | 21.03 | 20.00 |
|       |             | 2636.5 | 22.05 | 21.05 | 20.01 |
|       |             | 2593   | 21.98 | 20.92 | 19.93 |
|       |             | 2549.5 | 21.90 | 20.91 | 19.87 |

|  |  |      |       |       |       |
|--|--|------|-------|-------|-------|
|  |  | 2506 | 21.69 | 20.69 | 19.64 |
|--|--|------|-------|-------|-------|

**LTE Band41(ANT13 DSI8/9/10)**

| Band 41         |               |                 |                           |       |       |
|-----------------|---------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 | RB offset     |                 | QPSK                      | 16QAM | 64QAM |
| 5MHz            | 1RB-High      | 2687.5          | 21.04                     | 21.09 | 20.73 |
|                 |               | 2640.3          | 21.26                     | 21.26 | 20.96 |
|                 |               | 2593            | 21.33                     | 21.37 | 20.97 |
|                 |               | 2545.8          | 21.39                     | 21.40 | 21.09 |
|                 |               | 2498.5          | 21.11                     | 21.13 | 20.76 |
|                 | 1RB-Middle    | 2687.5          | 21.11                     | 21.09 | 20.74 |
|                 |               | 2640.3          | 21.32                     | 21.30 | 20.99 |
|                 |               | 2593            | 21.37                     | 21.38 | 21.02 |
|                 |               | 2545.8          | 21.50                     | 21.45 | 21.13 |
|                 |               | 2498.5          | 21.10                     | 21.08 | 20.73 |
|                 | 1RB-Low       | 2687.5          | 21.09                     | 21.07 | 20.75 |
|                 |               | 2640.3          | 21.30                     | 21.30 | 21.01 |
|                 |               | 2593            | 21.34                     | 21.38 | 21.02 |
|                 |               | 2545.8          | 21.43                     | 21.41 | 21.10 |
|                 |               | 2498.5          | 21.04                     | 21.06 | 20.68 |
|                 | 12RB-High     | 2687.5          | 21.04                     | 20.99 | 20.06 |
|                 |               | 2640.3          | 21.23                     | 21.18 | 20.24 |
|                 |               | 2593            | 21.24                     | 21.19 | 20.25 |
|                 |               | 2545.8          | 21.36                     | 21.31 | 20.38 |
|                 |               | 2498.5          | 21.00                     | 20.97 | 20.02 |
|                 | 12RB-Middle   | 2687.5          | 21.05                     | 21.01 | 20.08 |
|                 |               | 2640.3          | 21.22                     | 21.18 | 20.26 |
|                 |               | 2593            | 21.27                     | 21.23 | 20.28 |
|                 |               | 2545.8          | 21.38                     | 21.34 | 20.40 |
|                 |               | 2498.5          | 21.01                     | 20.96 | 20.02 |
|                 | 12RB-Low      | 2687.5          | 21.06                     | 21.01 | 20.08 |
|                 |               | 2640.3          | 21.28                     | 21.23 | 20.32 |
|                 |               | 2593            | 21.30                     | 21.25 | 20.32 |
|                 |               | 2545.8          | 21.39                     | 21.32 | 20.41 |
|                 |               | 2498.5          | 21.01                     | 20.96 | 20.02 |
|                 | 25RB          | 2687.5          | 21.09                     | 21.09 | 20.11 |
|                 |               | 2640.3          | 21.27                     | 21.31 | 20.32 |
|                 |               | 2593            | 21.30                     | 21.31 | 20.32 |
|                 |               | 2545.8          | 21.36                     | 21.40 | 20.39 |
|                 |               | 2498.5          | 21.03                     | 21.04 | 20.05 |
| 10MHz           | 1RB-High      | 2685            | 21.05                     | 21.06 | 20.68 |
|                 |               | 2639            | 21.19                     | 21.21 | 20.89 |
|                 |               | 2593            | 21.28                     | 21.33 | 20.95 |
|                 |               | 2547            | 21.32                     | 21.33 | 20.97 |
|                 |               | 2501            | 21.11                     | 21.14 | 20.75 |
|                 | 1RB-Middle    | 2685            | 21.07                     | 21.11 | 20.74 |
|                 |               | 2639            | 21.27                     | 21.33 | 20.97 |
|                 |               | 2593            | 21.33                     | 21.40 | 21.02 |
|                 |               | 2547            | 21.42                     | 21.45 | 21.11 |
|                 |               | 2501            | 21.09                     | 21.16 | 20.74 |
|                 | 1RB-Low       | 2685            | 21.03                     | 21.07 | 20.69 |
|                 |               | 2639            | 21.30                     | 21.32 | 21.01 |
|                 |               | 2593            | 21.26                     | 21.34 | 20.95 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       |             | 2547   | 21.38 | 21.41 | 21.09 |
|       |             | 2501   | 21.01 | 21.04 | 20.65 |
|       | 25RB-High   | 2685   | 21.06 | 21.08 | 20.12 |
|       |             | 2639   | 21.23 | 21.25 | 20.25 |
|       |             | 2593   | 21.25 | 21.28 | 20.29 |
|       |             | 2547   | 21.31 | 21.37 | 20.35 |
|       |             | 2501   | 21.07 | 21.10 | 20.10 |
|       |             | 2685   | 21.06 | 21.07 | 20.10 |
|       | 25RB-Middle | 2639   | 21.23 | 21.28 | 20.28 |
|       |             | 2593   | 21.23 | 21.26 | 20.27 |
|       |             | 2547   | 21.37 | 21.40 | 20.41 |
|       |             | 2501   | 21.00 | 21.04 | 20.06 |
|       |             | 2685   | 21.03 | 21.06 | 20.08 |
|       | 25RB-Low    | 2639   | 21.29 | 21.33 | 20.33 |
|       |             | 2593   | 21.25 | 21.30 | 20.28 |
|       |             | 2547   | 21.33 | 21.40 | 20.39 |
|       |             | 2501   | 20.99 | 21.01 | 20.03 |
|       |             | 2685   | 21.06 | 21.10 | 20.06 |
|       | 50RB        | 2639   | 21.26 | 21.31 | 20.27 |
|       |             | 2593   | 21.27 | 21.29 | 20.24 |
|       |             | 2547   | 21.35 | 21.39 | 20.36 |
|       |             | 2501   | 21.02 | 21.06 | 20.00 |
|       |             | 2682.5 | 20.96 | 21.02 | 20.63 |
| 15MHz | 1RB-High    | 2637.8 | 21.12 | 21.18 | 20.84 |
|       |             | 2593   | 21.22 | 21.30 | 20.89 |
|       |             | 2548.3 | 21.21 | 21.26 | 20.90 |
|       |             | 2503.5 | 21.15 | 21.21 | 20.81 |
|       |             | 2682.5 | 21.04 | 21.09 | 20.74 |
|       | 1RB-Middle  | 2637.8 | 21.29 | 21.34 | 20.99 |
|       |             | 2593   | 21.34 | 21.37 | 21.02 |
|       |             | 2548.3 | 21.39 | 21.43 | 21.09 |
|       |             | 2503.5 | 21.11 | 21.16 | 20.76 |
|       |             | 2682.5 | 20.96 | 21.04 | 20.65 |
|       | 1RB-Low     | 2637.8 | 21.26 | 21.30 | 20.97 |
|       |             | 2593   | 21.25 | 21.31 | 20.93 |
|       |             | 2548.3 | 21.36 | 21.38 | 21.05 |
|       |             | 2503.5 | 20.95 | 21.00 | 20.61 |
|       |             | 2682.5 | 21.01 | 20.99 | 20.10 |
|       | 36RB-High   | 2637.8 | 21.20 | 21.22 | 20.20 |
|       |             | 2593   | 21.22 | 21.23 | 20.21 |
|       |             | 2548.3 | 21.28 | 21.28 | 20.26 |
|       |             | 2503.5 | 21.08 | 21.07 | 20.06 |
|       |             | 2682.5 | 20.97 | 21.00 | 20.00 |
|       | 36RB-Middle | 2637.8 | 21.24 | 21.24 | 20.24 |
|       |             | 2593   | 21.21 | 21.23 | 20.20 |
|       |             | 2548.3 | 21.30 | 21.31 | 20.31 |
|       |             | 2503.5 | 21.05 | 21.03 | 20.04 |
|       |             | 2682.5 | 21.00 | 20.99 | 20.00 |
|       | 36RB-Low    | 2637.8 | 21.26 | 21.27 | 20.27 |
|       |             | 2593   | 21.24 | 21.24 | 20.23 |
|       |             | 2548.3 | 21.33 | 21.32 | 20.33 |
|       |             | 2503.5 | 20.97 | 20.95 | 20.11 |
|       |             | 2682.5 | 21.04 | 21.05 | 20.03 |
|       | 75RB        | 2637.8 | 21.25 | 21.30 | 20.26 |
|       |             | 2593   | 21.29 | 21.31 | 20.28 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
| 20MHz | 1RB-High    | 2548.3 | 21.34 | 21.35 | 20.33 |
|       |             | 2503.5 | 21.08 | 21.09 | 20.06 |
|       |             | 2680   | 20.93 | 20.98 | 20.57 |
|       |             | 2636.5 | 20.92 | 20.98 | 20.62 |
|       |             | 2593   | 20.84 | 20.91 | 20.45 |
|       |             | 2549.5 | 20.84 | 20.86 | 20.51 |
|       | 1RB-Middle  | 2506   | 20.69 | 20.70 | 20.35 |
|       |             | 2680   | 21.05 | 21.08 | 20.70 |
|       |             | 2636.5 | 21.07 | 21.07 | 20.73 |
|       |             | 2593   | 21.04 | 21.07 | 20.68 |
|       |             | 2549.5 | 20.94 | 20.96 | 20.61 |
|       |             | 2506   | 20.74 | 20.77 | 20.37 |
|       | 1RB-Low     | 2680   | 21.03 | 21.06 | 20.68 |
|       |             | 2636.5 | 21.00 | 21.05 | 20.69 |
|       |             | 2593   | 20.99 | 21.02 | 20.65 |
|       |             | 2549.5 | 20.89 | 20.86 | 20.53 |
|       |             | 2506   | 20.61 | 20.63 | 20.24 |
|       | 50RB-High   | 2680   | 21.00 | 21.06 | 20.31 |
|       |             | 2636.5 | 21.00 | 21.02 | 20.29 |
|       |             | 2593   | 20.93 | 20.96 | 20.20 |
|       |             | 2549.5 | 20.91 | 20.92 | 20.21 |
|       |             | 2506   | 20.70 | 20.74 | 20.01 |
|       | 50RB-Middle | 2680   | 21.05 | 21.05 | 20.33 |
|       |             | 2636.5 | 21.06 | 21.10 | 20.37 |
|       |             | 2593   | 20.96 | 20.97 | 20.24 |
|       |             | 2549.5 | 20.92 | 20.94 | 20.21 |
|       |             | 2506   | 20.69 | 20.74 | 20.02 |
|       | 50RB-Low    | 2680   | 21.06 | 21.09 | 20.36 |
|       |             | 2636.5 | 21.07 | 21.11 | 20.36 |
|       |             | 2593   | 21.00 | 21.03 | 20.28 |
|       |             | 2549.5 | 20.92 | 20.94 | 20.21 |
|       |             | 2506   | 20.65 | 20.68 | 20.01 |
|       | 100RB       | 2680   | 21.03 | 21.06 | 20.30 |
|       |             | 2636.5 | 21.04 | 21.07 | 20.34 |
|       |             | 2593   | 20.97 | 20.99 | 20.24 |
|       |             | 2549.5 | 20.90 | 20.91 | 20.19 |
|       |             | 2506   | 20.68 | 20.70 | 20.03 |

#### LTE Band41(ANT31 DSI2/3/4/10)

| Band 41         |                            |                 |                           |       |       |
|-----------------|----------------------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation<br>RB offset | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 |                            |                 | QPSK                      | 16QAM | 64QAM |
| 5MHz            | 1RB-High                   | 2687.5          | 23.38                     | 22.50 | 21.27 |
|                 |                            | 2640.3          | 23.29                     | 22.37 | 21.20 |
|                 |                            | 2593            | 23.43                     | 22.55 | 21.32 |
|                 |                            | 2545.8          | 23.28                     | 22.39 | 21.19 |
|                 |                            | 2498.5          | 23.31                     | 22.41 | 21.17 |
|                 |                            | 2687.5          | 23.43                     | 22.52 | 21.29 |
|                 | 1RB-Middle                 | 2640.3          | 23.34                     | 22.37 | 21.21 |
|                 |                            | 2593            | 23.53                     | 22.60 | 21.43 |
|                 |                            | 2545.8          | 23.35                     | 22.42 | 21.24 |
|                 |                            | 2498.5          | 23.34                     | 22.42 | 21.23 |
|                 | 1RB-Low                    | 2687.5          | 23.42                     | 22.49 | 21.30 |
|                 |                            | 2640.3          | 23.30                     | 22.38 | 21.21 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       |             | 2593   | 23.50 | 22.61 | 21.41 |
|       |             | 2545.8 | 23.25 | 22.33 | 21.14 |
|       |             | 2498.5 | 23.31 | 22.41 | 21.19 |
|       | 12RB-High   | 2687.5 | 22.30 | 21.30 | 20.35 |
|       |             | 2640.3 | 22.21 | 21.21 | 20.27 |
|       |             | 2593   | 22.34 | 21.33 | 20.37 |
|       |             | 2545.8 | 22.23 | 21.21 | 20.24 |
|       |             | 2498.5 | 22.19 | 21.18 | 20.21 |
|       | 12RB-Middle | 2687.5 | 22.32 | 21.33 | 20.42 |
|       |             | 2640.3 | 22.20 | 21.22 | 20.23 |
|       |             | 2593   | 22.38 | 21.39 | 20.40 |
|       |             | 2545.8 | 22.22 | 21.21 | 20.22 |
|       |             | 2498.5 | 22.22 | 21.21 | 20.24 |
|       | 12RB-Low    | 2687.5 | 22.33 | 21.34 | 20.41 |
|       |             | 2640.3 | 22.22 | 21.23 | 20.27 |
|       |             | 2593   | 22.41 | 21.42 | 20.43 |
|       |             | 2545.8 | 22.19 | 21.18 | 20.23 |
|       |             | 2498.5 | 22.24 | 21.24 | 20.27 |
|       | 25RB        | 2687.5 | 22.35 | 21.38 | 20.39 |
|       |             | 2640.3 | 22.25 | 21.28 | 20.29 |
|       |             | 2593   | 22.38 | 21.40 | 20.42 |
|       |             | 2545.8 | 22.19 | 21.24 | 20.24 |
|       |             | 2498.5 | 22.22 | 21.26 | 20.25 |
| 10MHz | 1RB-High    | 2685   | 23.37 | 22.47 | 21.24 |
|       |             | 2639   | 23.27 | 22.36 | 21.15 |
|       |             | 2593   | 23.37 | 22.49 | 21.27 |
|       |             | 2547   | 23.26 | 22.39 | 21.14 |
|       |             | 2501   | 23.24 | 22.34 | 21.08 |
|       | 1RB-Middle  | 2685   | 23.42 | 22.54 | 21.33 |
|       |             | 2639   | 23.30 | 22.41 | 21.19 |
|       |             | 2593   | 23.49 | 22.63 | 21.39 |
|       |             | 2547   | 23.32 | 22.45 | 21.20 |
|       |             | 2501   | 23.30 | 22.45 | 21.16 |
|       | 1RB-Low     | 2685   | 23.39 | 22.51 | 21.28 |
|       |             | 2639   | 23.27 | 22.37 | 21.13 |
|       |             | 2593   | 23.46 | 22.59 | 21.37 |
|       |             | 2547   | 23.23 | 22.34 | 21.13 |
|       |             | 2501   | 23.28 | 22.41 | 21.13 |
|       | 25RB-High   | 2685   | 22.36 | 21.37 | 20.42 |
|       |             | 2639   | 22.21 | 21.25 | 20.26 |
|       |             | 2593   | 22.36 | 21.37 | 20.38 |
|       |             | 2547   | 22.22 | 21.25 | 20.25 |
|       |             | 2501   | 22.18 | 21.21 | 20.21 |
|       | 25RB-Middle | 2685   | 22.35 | 21.39 | 20.42 |
|       |             | 2639   | 22.22 | 21.26 | 20.25 |
|       |             | 2593   | 22.35 | 21.38 | 20.39 |
|       |             | 2547   | 22.23 | 21.27 | 20.26 |
|       |             | 2501   | 22.19 | 21.22 | 20.22 |
|       | 25RB-Low    | 2685   | 22.33 | 21.37 | 20.38 |
|       |             | 2639   | 22.25 | 21.28 | 20.27 |
|       |             | 2593   | 22.39 | 21.42 | 20.42 |
|       |             | 2547   | 22.17 | 21.21 | 20.22 |
|       |             | 2501   | 22.21 | 21.26 | 20.25 |
|       | 50RB        | 2685   | 22.38 | 21.41 | 20.36 |
|       |             | 2639   | 22.24 | 21.28 | 20.21 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       |             | 2593   | 22.39 | 21.39 | 20.35 |
|       |             | 2547   | 22.22 | 21.25 | 20.18 |
|       |             | 2501   | 22.20 | 21.23 | 20.17 |
| 15MHz | 1RB-High    | 2682.5 | 23.30 | 22.42 | 21.20 |
|       |             | 2637.8 | 23.18 | 22.32 | 21.12 |
|       |             | 2593   | 23.28 | 22.43 | 21.21 |
|       |             | 2548.3 | 23.20 | 22.35 | 21.14 |
|       |             | 2503.5 | 23.14 | 22.29 | 21.04 |
|       |             | 2682.5 | 23.41 | 22.51 | 21.32 |
|       | 1RB-Middle  | 2637.8 | 23.27 | 22.40 | 21.19 |
|       |             | 2593   | 23.47 | 22.62 | 21.39 |
|       |             | 2548.3 | 23.30 | 22.45 | 21.20 |
|       |             | 2503.5 | 23.24 | 22.41 | 21.15 |
|       |             | 2682.5 | 23.34 | 22.47 | 21.26 |
|       | 1RB-Low     | 2637.8 | 23.19 | 22.32 | 21.10 |
|       |             | 2593   | 23.43 | 22.58 | 21.37 |
|       |             | 2548.3 | 23.16 | 22.31 | 21.07 |
|       |             | 2503.5 | 23.19 | 22.36 | 21.10 |
|       |             | 2682.5 | 22.31 | 21.28 | 20.30 |
|       | 36RB-High   | 2637.8 | 22.20 | 21.21 | 20.21 |
|       |             | 2593   | 22.31 | 21.30 | 20.28 |
|       |             | 2548.3 | 22.20 | 21.21 | 20.19 |
|       |             | 2503.5 | 22.11 | 21.12 | 20.12 |
|       |             | 2682.5 | 22.32 | 21.30 | 20.31 |
|       | 36RB-Middle | 2637.8 | 22.21 | 21.23 | 20.22 |
|       |             | 2593   | 22.33 | 21.33 | 20.31 |
|       |             | 2548.3 | 22.20 | 21.19 | 20.18 |
|       |             | 2503.5 | 22.18 | 21.18 | 20.17 |
|       |             | 2682.5 | 22.32 | 21.31 | 20.31 |
|       | 36RB-Low    | 2637.8 | 22.21 | 21.21 | 20.21 |
|       |             | 2593   | 22.38 | 21.37 | 20.35 |
|       |             | 2548.3 | 22.16 | 21.16 | 20.15 |
|       |             | 2503.5 | 22.19 | 21.17 | 20.16 |
|       |             | 2682.5 | 22.34 | 21.35 | 20.33 |
|       | 75RB        | 2637.8 | 22.23 | 21.25 | 20.21 |
|       |             | 2593   | 22.38 | 21.37 | 20.37 |
|       |             | 2548.3 | 22.21 | 21.23 | 20.19 |
|       |             | 2503.5 | 22.19 | 21.20 | 20.19 |
|       |             | 2680   | 23.29 | 22.23 | 20.87 |
| 20MHz | 1RB-High    | 2636.5 | 23.18 | 22.16 | 20.80 |
|       |             | 2593   | 23.18 | 22.15 | 20.77 |
|       |             | 2549.5 | 23.15 | 22.12 | 20.74 |
|       |             | 2506   | 23.04 | 21.99 | 20.60 |
|       |             | 2680   | 23.44 | 22.41 | 21.03 |
|       | 1RB-Middle  | 2636.5 | 23.28 | 22.24 | 20.89 |
|       |             | 2593   | 23.43 | 22.39 | 20.99 |
|       |             | 2549.5 | 23.23 | 22.20 | 20.82 |
|       |             | 2506   | 23.18 | 22.13 | 20.75 |
|       |             | 2680   | 23.36 | 22.33 | 20.94 |
|       | 1RB-Low     | 2636.5 | 23.22 | 22.17 | 20.85 |
|       |             | 2593   | 23.40 | 22.39 | 21.02 |
|       |             | 2549.5 | 23.13 | 22.10 | 20.71 |
|       |             | 2506   | 23.11 | 22.07 | 20.70 |
|       | 50RB-High   | 2680   | 22.34 | 21.35 | 20.31 |
|       |             | 2636.5 | 22.17 | 21.20 | 20.16 |

|  |             |        |       |       |       |
|--|-------------|--------|-------|-------|-------|
|  |             | 2593   | 22.25 | 21.30 | 20.23 |
|  |             | 2549.5 | 22.18 | 21.20 | 20.13 |
|  |             | 2506   | 22.04 | 21.05 | 20.00 |
|  | 50RB-Middle | 2680   | 22.35 | 21.38 | 20.32 |
|  |             | 2636.5 | 22.24 | 21.27 | 20.24 |
|  |             | 2593   | 22.30 | 21.32 | 20.26 |
|  |             | 2549.5 | 22.14 | 21.18 | 20.13 |
|  |             | 2506   | 22.10 | 21.12 | 20.05 |
|  |             | 2680   | 22.38 | 21.40 | 20.35 |
|  | 50RB-Low    | 2636.5 | 22.25 | 21.28 | 20.25 |
|  |             | 2593   | 22.35 | 21.38 | 20.32 |
|  |             | 2549.5 | 22.12 | 21.15 | 20.09 |
|  |             | 2506   | 22.11 | 21.13 | 20.08 |
|  |             | 2680   | 22.35 | 21.36 | 20.31 |
|  | 100RB       | 2636.5 | 22.22 | 21.24 | 20.20 |
|  |             | 2593   | 22.31 | 21.32 | 20.28 |
|  |             | 2549.5 | 22.13 | 21.15 | 20.09 |
|  |             | 2506   | 22.07 | 21.09 | 20.03 |

### LTE Band66(ANT13 DSI2/3)

| Band 66         |                            |                 |                           |       |       |
|-----------------|----------------------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation<br>RB offset | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 |                            |                 | QPSK                      | 16QAM | 64QAM |
| 1.4MHz          | 1RB-High                   | 1779.3          | 13.13                     | 13.49 | 13.34 |
|                 |                            | 1745            | 13.17                     | 13.39 | 13.37 |
|                 |                            | 1710.7          | 13.34                     | 13.63 | 13.48 |
|                 | 1RB-Middle                 | 1779.3          | 13.15                     | 13.38 | 13.33 |
|                 |                            | 1745            | 13.20                     | 13.38 | 13.33 |
|                 |                            | 1710.7          | 13.35                     | 13.71 | 13.56 |
|                 | 1RB-Low                    | 1779.3          | 13.12                     | 13.45 | 13.27 |
|                 |                            | 1745            | 13.20                     | 13.49 | 13.33 |
|                 |                            | 1710.7          | 13.35                     | 13.58 | 13.57 |
|                 | 3RB-High                   | 1779.3          | 13.22                     | 13.23 | 13.33 |
|                 |                            | 1745            | 13.20                     | 13.12 | 13.29 |
|                 |                            | 1710.7          | 13.38                     | 13.41 | 13.50 |
|                 | 3RB-Middle                 | 1779.3          | 13.17                     | 13.24 | 13.24 |
|                 |                            | 1745            | 13.21                     | 13.18 | 13.29 |
|                 |                            | 1710.7          | 13.34                     | 13.44 | 13.45 |
|                 | 3RB-Low                    | 1779.3          | 13.20                     | 13.23 | 13.25 |
|                 |                            | 1745            | 13.22                     | 13.27 | 13.30 |
|                 |                            | 1710.7          | 13.41                     | 13.37 | 13.48 |
|                 | 6RB                        | 1779.3          | 13.16                     | 13.30 | 13.12 |
|                 |                            | 1745            | 13.23                     | 13.30 | 13.16 |
|                 |                            | 1710.7          | 13.42                     | 13.49 | 13.37 |
| 3MHz            | 1RB-High                   | 1778.5          | 13.12                     | 13.49 | 13.32 |
|                 |                            | 1745            | 13.14                     | 13.40 | 13.38 |
|                 |                            | 1711.5          | 13.33                     | 13.67 | 13.48 |
|                 | 1RB-Middle                 | 1778.5          | 13.13                     | 13.39 | 13.44 |
|                 |                            | 1745            | 13.19                     | 13.52 | 13.37 |
|                 |                            | 1711.5          | 13.37                     | 13.68 | 13.50 |
|                 | 1RB-Low                    | 1778.5          | 13.14                     | 13.34 | 13.29 |
|                 |                            | 1745            | 13.19                     | 13.40 | 13.41 |
|                 |                            | 1711.5          | 13.34                     | 13.65 | 13.53 |
|                 | 8RB-High                   | 1778.5          | 13.17                     | 13.24 | 13.20 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       |             | 1745   | 13.15 | 13.27 | 13.24 |
|       |             | 1711.5 | 13.35 | 13.45 | 13.44 |
|       |             | 1778.5 | 13.14 | 13.25 | 13.21 |
|       | 8RB-Middle  | 1745   | 13.18 | 13.24 | 13.24 |
|       |             | 1711.5 | 13.39 | 13.46 | 13.45 |
|       |             | 1778.5 | 13.18 | 13.25 | 13.22 |
|       | 8RB-Low     | 1745   | 13.22 | 13.30 | 13.30 |
|       |             | 1711.5 | 13.39 | 13.42 | 13.45 |
|       |             | 1778.5 | 13.16 | 13.17 | 13.21 |
|       | 15RB        | 1745   | 13.16 | 13.18 | 13.20 |
|       |             | 1711.5 | 13.39 | 13.41 | 13.36 |
|       |             | 1777.5 | 13.16 | 13.48 | 13.34 |
| 5MHz  | 1RB-High    | 1745   | 13.17 | 13.34 | 13.35 |
|       |             | 1712.5 | 13.33 | 13.68 | 13.61 |
|       |             | 1777.5 | 13.22 | 13.49 | 13.36 |
|       | 1RB-Middle  | 1745   | 13.21 | 13.44 | 13.46 |
|       |             | 1712.5 | 13.43 | 13.65 | 13.63 |
|       |             | 1777.5 | 13.09 | 13.35 | 13.31 |
|       | 1RB-Low     | 1745   | 13.22 | 13.45 | 13.40 |
|       |             | 1712.5 | 13.37 | 13.70 | 13.55 |
|       |             | 1777.5 | 13.14 | 13.19 | 13.18 |
|       | 12RB-High   | 1745   | 13.20 | 13.16 | 13.18 |
|       |             | 1712.5 | 13.37 | 13.37 | 13.42 |
|       |             | 1777.5 | 13.20 | 13.18 | 13.20 |
|       | 12RB-Middle | 1745   | 13.20 | 13.21 | 13.26 |
|       |             | 1712.5 | 13.44 | 13.42 | 13.45 |
|       |             | 1777.5 | 13.22 | 13.25 | 13.25 |
|       | 12RB-Low    | 1745   | 13.29 | 13.26 | 13.31 |
|       |             | 1712.5 | 13.38 | 13.48 | 13.51 |
|       |             | 1777.5 | 13.21 | 13.24 | 13.21 |
|       | 25RB        | 1745   | 13.23 | 13.27 | 13.24 |
|       |             | 1712.5 | 13.43 | 13.47 | 13.42 |
|       |             | 1775   | 13.16 | 13.38 | 13.36 |
| 10MHz | 1RB-High    | 1745   | 13.13 | 13.39 | 13.26 |
|       |             | 1715   | 13.36 | 13.68 | 13.57 |
|       |             | 1775   | 13.16 | 13.35 | 13.32 |
|       | 1RB-Middle  | 1745   | 13.25 | 13.40 | 13.37 |
|       |             | 1715   | 13.40 | 13.71 | 13.58 |
|       |             | 1775   | 13.09 | 13.42 | 13.34 |
|       | 1RB-Low     | 1745   | 13.22 | 13.52 | 13.42 |
|       |             | 1715   | 13.33 | 13.67 | 13.49 |
|       |             | 1775   | 13.19 | 13.18 | 13.17 |
|       | 25RB-High   | 1745   | 13.20 | 13.26 | 13.25 |
|       |             | 1715   | 13.48 | 13.51 | 13.52 |
|       |             | 1775   | 13.15 | 13.19 | 13.16 |
|       | 25RB-Middle | 1745   | 13.21 | 13.24 | 13.28 |
|       |             | 1715   | 13.43 | 13.44 | 13.42 |
|       |             | 1775   | 13.19 | 13.20 | 13.16 |
|       | 25RB-Low    | 1745   | 13.27 | 13.32 | 13.34 |
|       |             | 1715   | 13.37 | 13.42 | 13.45 |
|       |             | 1775   | 13.16 | 13.21 | 13.17 |
|       | 50RB        | 1745   | 13.27 | 13.24 | 13.29 |
|       |             | 1715   | 13.49 | 13.42 | 13.49 |
|       |             | 1772.5 | 13.12 | 13.41 | 13.28 |
| 15MHz | 1RB-High    | 1745   | 13.04 | 13.35 | 13.19 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       | 1RB-Middle  | 1717.5 | 13.32 | 13.64 | 13.48 |
|       |             | 1772.5 | 13.11 | 13.36 | 13.31 |
|       |             | 1745   | 13.20 | 13.49 | 13.35 |
|       |             | 1717.5 | 13.39 | 13.72 | 13.60 |
|       | 1RB-Low     | 1772.5 | 13.02 | 13.27 | 13.16 |
|       |             | 1745   | 13.21 | 13.55 | 13.44 |
|       |             | 1717.5 | 13.30 | 13.60 | 13.49 |
|       |             | 1772.5 | 13.11 | 13.21 | 13.14 |
|       | 36RB-High   | 1745   | 13.18 | 13.18 | 13.21 |
|       |             | 1717.5 | 13.39 | 13.45 | 13.43 |
|       |             | 1772.5 | 13.11 | 13.17 | 13.15 |
|       |             | 1745   | 13.26 | 13.21 | 13.29 |
|       | 36RB-Middle | 1717.5 | 13.39 | 13.39 | 13.42 |
|       |             | 1772.5 | 13.16 | 13.15 | 13.12 |
|       |             | 1745   | 13.30 | 13.25 | 13.33 |
|       |             | 1717.5 | 13.35 | 13.35 | 13.45 |
|       | 36RB-Low    | 1772.5 | 13.17 | 13.11 | 13.16 |
|       |             | 1745   | 13.26 | 13.24 | 13.26 |
|       |             | 1717.5 | 13.44 | 13.39 | 13.43 |
|       |             | 1772.5 | 13.17 | 13.11 | 13.16 |
|       | 75RB        | 1745   | 13.26 | 13.24 | 13.26 |
|       |             | 1717.5 | 13.44 | 13.39 | 13.43 |
| 20MHz | 1RB-High    | 1770   | 13.16 | 13.46 | 13.29 |
|       |             | 1745   | 13.23 | 13.48 | 13.35 |
|       |             | 1720   | 13.27 | 13.57 | 13.48 |
|       | 1RB-Middle  | 1770   | 13.26 | 13.53 | 13.34 |
|       |             | 1745   | 13.37 | 13.68 | 13.50 |
|       |             | 1720   | 13.45 | 13.82 | 13.73 |
|       | 1RB-Low     | 1770   | 13.19 | 13.51 | 13.36 |
|       |             | 1745   | 13.26 | 13.49 | 13.35 |
|       |             | 1720   | 13.37 | 13.68 | 13.50 |
|       | 50RB-High   | 1770   | 13.28 | 13.20 | 13.21 |
|       |             | 1745   | 13.34 | 13.36 | 13.33 |
|       |             | 1720   | 13.52 | 13.50 | 13.52 |
|       | 50RB-Middle | 1770   | 13.28 | 13.28 | 13.32 |
|       |             | 1745   | 13.42 | 13.37 | 13.38 |
|       |             | 1720   | 13.53 | 13.48 | 13.52 |
|       | 50RB-Low    | 1770   | 13.31 | 13.33 | 13.32 |
|       |             | 1745   | 13.38 | 13.45 | 13.44 |
|       |             | 1720   | 13.48 | 13.48 | 13.47 |
|       | 100RB       | 1770   | 13.26 | 13.25 | 13.23 |
|       |             | 1745   | 13.36 | 13.34 | 13.36 |
|       |             | 1720   | 13.45 | 13.46 | 13.51 |

#### LTE Band66(ANT13 DSI4)

| Band 66         |               |                 |                           |       |       |
|-----------------|---------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 | RB offset     |                 | QPSK                      | 16QAM | 64QAM |
| 1.4MHz          | 1RB-High      | 1779.3          | 22.73                     | 21.89 | 21.04 |
|                 |               | 1745            | 22.66                     | 21.95 | 20.96 |
|                 |               | 1710.7          | 22.93                     | 22.07 | 21.22 |
|                 | 1RB-Middle    | 1779.3          | 22.71                     | 21.93 | 21.01 |
|                 |               | 1745            | 22.68                     | 21.92 | 21.00 |
|                 |               | 1710.7          | 22.94                     | 22.16 | 21.20 |
|                 | 1RB-Low       | 1779.3          | 22.74                     | 21.92 | 21.05 |
|                 |               | 1745            | 22.69                     | 21.88 | 20.99 |
|                 |               | 1710.7          | 22.91                     | 22.07 | 21.15 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       | 3RB-High    | 1779.3 | 22.76 | 21.70 | 20.96 |
|       |             | 1745   | 22.69 | 21.61 | 20.85 |
|       |             | 1710.7 | 22.96 | 21.87 | 21.20 |
|       | 3RB-Middle  | 1779.3 | 22.72 | 21.71 | 20.96 |
|       |             | 1745   | 22.71 | 21.72 | 20.93 |
|       |             | 1710.7 | 22.93 | 21.93 | 21.19 |
|       | 3RB-Low     | 1779.3 | 22.79 | 21.76 | 20.97 |
|       |             | 1745   | 22.70 | 21.70 | 20.90 |
|       |             | 1710.7 | 22.96 | 21.88 | 21.10 |
|       | 6RB         | 1779.3 | 21.70 | 20.99 | 19.88 |
|       |             | 1745   | 21.69 | 20.87 | 19.79 |
|       |             | 1710.7 | 21.94 | 21.15 | 20.02 |
| 3MHz  | 1RB-High    | 1778.5 | 22.74 | 21.90 | 21.04 |
|       |             | 1745   | 22.64 | 21.91 | 20.97 |
|       |             | 1711.5 | 22.89 | 22.13 | 21.17 |
|       | 1RB-Middle  | 1778.5 | 22.73 | 22.10 | 20.96 |
|       |             | 1745   | 22.75 | 21.86 | 21.02 |
|       |             | 1711.5 | 22.95 | 22.24 | 21.16 |
|       | 1RB-Low     | 1778.5 | 22.69 | 21.97 | 21.08 |
|       |             | 1745   | 22.70 | 21.84 | 20.98 |
|       |             | 1711.5 | 22.95 | 22.16 | 21.20 |
|       | 8RB-High    | 1778.5 | 21.71 | 20.95 | 19.87 |
|       |             | 1745   | 21.65 | 20.87 | 19.78 |
|       |             | 1711.5 | 21.92 | 21.16 | 20.08 |
|       | 8RB-Middle  | 1778.5 | 21.69 | 20.90 | 19.88 |
|       |             | 1745   | 21.67 | 20.87 | 19.77 |
|       |             | 1711.5 | 21.92 | 21.16 | 20.07 |
|       | 8RB-Low     | 1778.5 | 21.71 | 20.95 | 19.87 |
|       |             | 1745   | 21.71 | 20.90 | 19.88 |
|       |             | 1711.5 | 21.92 | 21.14 | 20.07 |
|       | 15RB        | 1778.5 | 21.66 | 20.87 | 19.82 |
|       |             | 1745   | 21.67 | 20.83 | 19.75 |
|       |             | 1711.5 | 21.92 | 21.09 | 20.05 |
| 5MHz  | 1RB-High    | 1777.5 | 22.78 | 21.97 | 21.03 |
|       |             | 1745   | 22.66 | 21.81 | 21.00 |
|       |             | 1712.5 | 22.93 | 22.07 | 21.24 |
|       | 1RB-Middle  | 1777.5 | 22.77 | 21.98 | 21.02 |
|       |             | 1745   | 22.77 | 21.86 | 21.00 |
|       |             | 1712.5 | 23.03 | 22.18 | 21.27 |
|       | 1RB-Low     | 1777.5 | 22.70 | 21.96 | 20.92 |
|       |             | 1745   | 22.73 | 21.95 | 20.96 |
|       |             | 1712.5 | 22.97 | 22.09 | 21.23 |
|       | 12RB-High   | 1777.5 | 21.68 | 20.82 | 19.78 |
|       |             | 1745   | 21.63 | 20.79 | 19.75 |
|       |             | 1712.5 | 21.92 | 21.04 | 19.98 |
|       | 12RB-Middle | 1777.5 | 21.74 | 20.88 | 19.85 |
|       |             | 1745   | 21.71 | 20.82 | 19.84 |
|       |             | 1712.5 | 21.95 | 21.08 | 20.03 |
|       | 12RB-Low    | 1777.5 | 21.77 | 20.90 | 19.93 |
|       |             | 1745   | 21.73 | 20.86 | 19.91 |
|       |             | 1712.5 | 21.91 | 21.12 | 20.06 |
|       | 25RB        | 1777.5 | 21.76 | 20.85 | 19.86 |
|       |             | 1745   | 21.64 | 20.84 | 19.82 |
|       |             | 1712.5 | 21.94 | 21.11 | 20.06 |
| 10MHz | 1RB-High    | 1775   | 22.72 | 21.89 | 20.96 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       |             | 1745   | 22.65 | 21.79 | 20.86 |
|       |             | 1715   | 22.97 | 22.21 | 21.20 |
|       |             | 1775   | 22.71 | 21.84 | 20.97 |
|       | 1RB-Middle  | 1745   | 22.73 | 22.03 | 20.90 |
|       |             | 1715   | 22.99 | 22.11 | 21.22 |
|       |             | 1775   | 22.65 | 21.85 | 20.92 |
|       | 1RB-Low     | 1745   | 22.76 | 21.93 | 21.01 |
|       |             | 1715   | 22.96 | 22.20 | 21.22 |
|       |             | 1775   | 21.67 | 20.81 | 19.84 |
|       | 25RB-High   | 1745   | 21.65 | 20.88 | 19.76 |
|       |             | 1715   | 21.97 | 21.13 | 20.10 |
|       |             | 1775   | 21.69 | 20.82 | 19.86 |
|       | 25RB-Middle | 1745   | 21.73 | 20.86 | 19.82 |
|       |             | 1715   | 21.91 | 21.05 | 20.06 |
|       |             | 1775   | 21.71 | 20.84 | 19.89 |
|       | 25RB-Low    | 1745   | 21.70 | 20.94 | 19.91 |
|       |             | 1715   | 21.90 | 21.07 | 20.06 |
|       |             | 1775   | 21.72 | 20.87 | 19.87 |
|       | 50RB        | 1745   | 21.71 | 20.83 | 19.88 |
|       |             | 1715   | 21.97 | 21.08 | 20.05 |
|       |             | 1772.5 | 22.68 | 21.90 | 20.96 |
| 15MHz | 1RB-High    | 1745   | 22.54 | 21.87 | 20.87 |
|       |             | 1717.5 | 22.80 | 22.06 | 21.08 |
|       |             | 1772.5 | 22.65 | 21.84 | 20.97 |
|       | 1RB-Middle  | 1745   | 22.70 | 21.83 | 20.95 |
|       |             | 1717.5 | 22.92 | 22.13 | 21.24 |
|       |             | 1772.5 | 22.51 | 21.85 | 20.80 |
|       | 1RB-Low     | 1745   | 22.73 | 21.97 | 21.01 |
|       |             | 1717.5 | 22.88 | 22.16 | 21.13 |
|       |             | 1772.5 | 21.63 | 20.83 | 19.86 |
|       | 36RB-High   | 1745   | 21.62 | 20.81 | 19.75 |
|       |             | 1717.5 | 21.88 | 21.03 | 20.07 |
|       |             | 1772.5 | 21.63 | 20.83 | 19.84 |
|       | 36RB-Middle | 1745   | 21.67 | 20.80 | 19.84 |
|       |             | 1717.5 | 21.89 | 21.03 | 20.05 |
|       |             | 1772.5 | 21.61 | 20.73 | 19.75 |
|       | 36RB-Low    | 1745   | 21.67 | 20.87 | 19.87 |
|       |             | 1717.5 | 21.91 | 21.05 | 20.05 |
|       |             | 1772.5 | 21.63 | 20.75 | 19.77 |
|       | 75RB        | 1745   | 21.69 | 20.80 | 19.77 |
|       |             | 1717.5 | 21.90 | 21.00 | 20.00 |
|       |             | 1770   | 22.71 | 21.96 | 20.95 |
| 20MHz | 1RB-High    | 1745   | 22.76 | 21.86 | 21.05 |
|       |             | 1720   | 22.80 | 21.97 | 21.03 |
|       |             | 1770   | 22.78 | 22.06 | 21.00 |
|       | 1RB-Middle  | 1745   | 22.96 | 22.12 | 21.07 |
|       |             | 1720   | 23.03 | 22.29 | 21.19 |
|       |             | 1770   | 22.73 | 21.86 | 21.00 |
|       | 1RB-Low     | 1745   | 22.75 | 21.99 | 21.06 |
|       |             | 1720   | 22.98 | 22.15 | 21.26 |
|       |             | 1770   | 21.74 | 20.88 | 19.89 |
|       | 50RB-High   | 1745   | 21.80 | 20.99 | 19.96 |
|       |             | 1720   | 22.03 | 21.18 | 20.13 |
|       |             | 1770   | 21.77 | 20.94 | 19.88 |
|       | 50RB-Middle | 1745   | 21.89 | 21.03 | 19.98 |

|  |          |      |       |       |       |
|--|----------|------|-------|-------|-------|
|  | 50RB-Low | 1720 | 22.02 | 21.14 | 20.12 |
|  |          | 1770 | 21.76 | 20.97 | 19.93 |
|  |          | 1745 | 21.91 | 21.05 | 20.00 |
|  |          | 1720 | 21.97 | 21.13 | 20.13 |
|  | 100RB    | 1770 | 21.77 | 20.87 | 19.88 |
|  |          | 1745 | 21.85 | 20.97 | 19.92 |
|  |          | 1720 | 22.00 | 21.14 | 20.10 |
|  |          |      |       |       |       |
|  |          |      |       |       |       |

**LTE Band66(ANT13 DSI8/9/10)**

| Band 66         |                            |                 |                           |       |       |
|-----------------|----------------------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation<br>RB offset | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 |                            |                 | QPSK                      | 16QAM | 64QAM |
| 1.4MHz          | 1RB-High                   | 1779.3          | 17.73                     | 17.98 | 17.92 |
|                 |                            | 1745            | 17.70                     | 18.07 | 17.91 |
|                 |                            | 1710.7          | 17.89                     | 18.25 | 18.06 |
|                 | 1RB-Middle                 | 1779.3          | 17.75                     | 18.11 | 17.91 |
|                 |                            | 1745            | 17.75                     | 18.09 | 17.90 |
|                 |                            | 1710.7          | 17.88                     | 18.23 | 18.15 |
|                 | 1RB-Low                    | 1779.3          | 17.70                     | 18.15 | 17.92 |
|                 |                            | 1745            | 17.72                     | 18.07 | 17.93 |
|                 |                            | 1710.7          | 17.88                     | 18.28 | 18.04 |
|                 | 3RB-High                   | 1779.3          | 17.77                     | 17.69 | 17.84 |
|                 |                            | 1745            | 17.70                     | 17.71 | 17.74 |
|                 |                            | 1710.7          | 17.94                     | 17.95 | 18.08 |
|                 | 3RB-Middle                 | 1779.3          | 17.74                     | 17.74 | 17.87 |
|                 |                            | 1745            | 17.73                     | 17.75 | 17.82 |
|                 |                            | 1710.7          | 17.93                     | 17.95 | 18.04 |
|                 | 3RB-Low                    | 1779.3          | 17.72                     | 17.69 | 17.85 |
|                 |                            | 1745            | 17.72                     | 17.72 | 17.80 |
|                 |                            | 1710.7          | 17.93                     | 17.96 | 18.01 |
|                 | 6RB                        | 1779.3          | 17.75                     | 17.87 | 17.70 |
|                 |                            | 1745            | 17.76                     | 17.86 | 17.73 |
|                 |                            | 1710.7          | 17.91                     | 18.03 | 17.89 |
| 3MHz            | 1RB-High                   | 1778.5          | 17.72                     | 17.99 | 17.93 |
|                 |                            | 1745            | 17.65                     | 18.05 | 17.81 |
|                 |                            | 1711.5          | 17.88                     | 18.26 | 18.12 |
|                 | 1RB-Middle                 | 1778.5          | 17.70                     | 18.02 | 17.97 |
|                 |                            | 1745            | 17.70                     | 18.11 | 17.90 |
|                 |                            | 1711.5          | 17.94                     | 18.24 | 18.12 |
|                 | 1RB-Low                    | 1778.5          | 17.70                     | 18.05 | 17.88 |
|                 |                            | 1745            | 17.73                     | 17.91 | 17.86 |
|                 |                            | 1711.5          | 17.90                     | 18.18 | 18.01 |
|                 | 8RB-High                   | 1778.5          | 17.73                     | 17.82 | 17.77 |
|                 |                            | 1745            | 17.68                     | 17.78 | 17.73 |
|                 |                            | 1711.5          | 17.92                     | 18.00 | 17.98 |
|                 | 8RB-Middle                 | 1778.5          | 17.74                     | 17.80 | 17.81 |
|                 |                            | 1745            | 17.72                     | 17.78 | 17.76 |
|                 |                            | 1711.5          | 17.89                     | 18.00 | 17.95 |
|                 | 8RB-Low                    | 1778.5          | 17.73                     | 17.80 | 17.76 |
|                 |                            | 1745            | 17.72                     | 17.81 | 17.81 |
|                 |                            | 1711.5          | 17.91                     | 18.00 | 17.98 |
|                 | 15RB                       | 1778.5          | 17.72                     | 17.76 | 17.78 |
|                 |                            | 1745            | 17.66                     | 17.72 | 17.68 |
|                 |                            | 1711.5          | 17.92                     | 17.96 | 17.96 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
| 5MHz  | 1RB-High    | 1777.5 | 17.73 | 18.03 | 17.92 |
|       |             | 1745   | 17.71 | 17.90 | 17.87 |
|       |             | 1712.5 | 17.90 | 18.29 | 18.05 |
|       | 1RB-Middle  | 1777.5 | 17.76 | 18.01 | 17.90 |
|       |             | 1745   | 17.77 | 18.08 | 17.95 |
|       |             | 1712.5 | 17.97 | 18.29 | 18.16 |
|       | 1RB-Low     | 1777.5 | 17.71 | 18.08 | 17.84 |
|       |             | 1745   | 17.75 | 18.00 | 17.96 |
|       |             | 1712.5 | 17.93 | 18.25 | 18.07 |
|       | 12RB-High   | 1777.5 | 17.69 | 17.69 | 17.73 |
|       |             | 1745   | 17.68 | 17.67 | 17.72 |
|       |             | 1712.5 | 17.91 | 17.92 | 17.95 |
|       | 12RB-Middle | 1777.5 | 17.72 | 17.78 | 17.77 |
|       |             | 1745   | 17.74 | 17.77 | 17.77 |
|       |             | 1712.5 | 17.95 | 17.98 | 17.97 |
|       | 12RB-Low    | 1777.5 | 17.78 | 17.82 | 17.81 |
|       |             | 1745   | 17.79 | 17.75 | 17.86 |
|       |             | 1712.5 | 17.93 | 17.92 | 18.01 |
|       | 25RB        | 1777.5 | 17.77 | 17.73 | 17.76 |
|       |             | 1745   | 17.68 | 17.76 | 17.72 |
|       |             | 1712.5 | 17.93 | 17.97 | 17.95 |
| 10MHz | 1RB-High    | 1775   | 17.71 | 17.95 | 17.84 |
|       |             | 1745   | 17.63 | 17.87 | 17.93 |
|       |             | 1715   | 17.88 | 18.31 | 18.12 |
|       | 1RB-Middle  | 1775   | 17.73 | 18.10 | 17.88 |
|       |             | 1745   | 17.77 | 18.10 | 18.00 |
|       |             | 1715   | 17.90 | 18.19 | 18.06 |
|       | 1RB-Low     | 1775   | 17.64 | 18.03 | 17.84 |
|       |             | 1745   | 17.75 | 18.07 | 17.99 |
|       |             | 1715   | 17.90 | 18.29 | 18.12 |
|       | 25RB-High   | 1775   | 17.73 | 17.73 | 17.74 |
|       |             | 1745   | 17.74 | 17.72 | 17.75 |
|       |             | 1715   | 18.02 | 18.01 | 18.01 |
|       | 25RB-Middle | 1775   | 17.75 | 17.75 | 17.72 |
|       |             | 1745   | 17.76 | 17.77 | 17.80 |
|       |             | 1715   | 17.91 | 17.96 | 17.95 |
|       | 25RB-Low    | 1775   | 17.71 | 17.72 | 17.73 |
|       |             | 1745   | 17.81 | 17.83 | 17.81 |
|       |             | 1715   | 17.92 | 17.94 | 17.96 |
|       | 50RB        | 1775   | 17.72 | 17.79 | 17.76 |
|       |             | 1745   | 17.79 | 17.81 | 17.82 |
|       |             | 1715   | 17.97 | 17.99 | 18.00 |
| 15MHz | 1RB-High    | 1772.5 | 17.67 | 18.01 | 17.87 |
|       |             | 1745   | 17.59 | 18.01 | 17.85 |
|       |             | 1717.5 | 17.83 | 18.13 | 18.07 |
|       | 1RB-Middle  | 1772.5 | 17.69 | 18.09 | 17.91 |
|       |             | 1745   | 17.73 | 17.91 | 17.95 |
|       |             | 1717.5 | 17.92 | 18.33 | 18.13 |
|       | 1RB-Low     | 1772.5 | 17.57 | 17.97 | 17.72 |
|       |             | 1745   | 17.74 | 17.88 | 17.95 |
|       |             | 1717.5 | 17.87 | 18.23 | 18.10 |
|       | 36RB-High   | 1772.5 | 17.68 | 17.73 | 17.78 |
|       |             | 1745   | 17.73 | 17.71 | 17.78 |
|       |             | 1717.5 | 17.91 | 17.92 | 17.98 |
|       | 36RB-Middle | 1772.5 | 17.72 | 17.72 | 17.74 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       |             | 1745   | 17.72 | 17.79 | 17.79 |
|       |             | 1717.5 | 17.88 | 17.96 | 17.96 |
|       |             | 1772.5 | 17.70 | 17.67 | 17.72 |
|       | 36RB-Low    | 1745   | 17.82 | 17.77 | 17.85 |
|       |             | 1717.5 | 17.87 | 17.96 | 17.99 |
|       |             | 1772.5 | 17.74 | 17.70 | 17.71 |
|       | 75RB        | 1745   | 17.76 | 17.73 | 17.75 |
|       |             | 1717.5 | 17.97 | 17.92 | 17.91 |
|       |             | 1770   | 17.78 | 18.03 | 18.05 |
| 20MHz | 1RB-High    | 1745   | 17.78 | 18.00 | 18.02 |
|       |             | 1720   | 17.86 | 18.18 | 18.01 |
|       |             | 1770   | 17.81 | 18.07 | 18.00 |
|       | 1RB-Middle  | 1745   | 17.93 | 18.32 | 18.18 |
|       |             | 1720   | 18.05 | 18.30 | 18.21 |
|       |             | 1770   | 17.75 | 18.16 | 18.00 |
|       | 1RB-Low     | 1745   | 17.81 | 18.06 | 17.98 |
|       |             | 1720   | 17.97 | 18.36 | 18.12 |
|       |             | 1770   | 17.83 | 17.80 | 17.84 |
|       | 50RB-High   | 1745   | 17.90 | 17.90 | 17.89 |
|       |             | 1720   | 18.10 | 18.08 | 18.10 |
|       |             | 1770   | 17.84 | 17.89 | 17.88 |
|       | 50RB-Middle | 1745   | 17.96 | 17.99 | 17.97 |
|       |             | 1720   | 18.08 | 18.07 | 18.08 |
|       |             | 1770   | 17.88 | 17.88 | 17.85 |
|       | 50RB-Low    | 1745   | 17.95 | 18.00 | 18.00 |
|       |             | 1720   | 18.05 | 18.00 | 18.05 |
|       |             | 1770   | 17.84 | 17.83 | 17.83 |
|       | 100RB       | 1745   | 17.92 | 17.89 | 17.92 |
|       |             | 1720   | 18.08 | 18.08 | 18.10 |

### LTE Band66(ANT31 DSI2/3)

| Band 66         |               |                 |                           |       |       |
|-----------------|---------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 | RB offset     |                 | QPSK                      | 16QAM | 64QAM |
| 1.4MHz          | 1RB-High      | 1779.3          | 23.04                     | 22.79 | 21.87 |
|                 |               | 1745            | 23.08                     | 22.77 | 21.81 |
|                 |               | 1710.7          | 23.22                     | 22.92 | 21.90 |
|                 | 1RB-Middle    | 1779.3          | 23.05                     | 22.81 | 21.91 |
|                 |               | 1745            | 23.12                     | 22.78 | 21.84 |
|                 |               | 1710.7          | 23.19                     | 22.79 | 22.03 |
|                 | 1RB-Low       | 1779.3          | 23.07                     | 22.79 | 21.78 |
|                 |               | 1745            | 23.12                     | 22.76 | 21.97 |
|                 |               | 1710.7          | 23.19                     | 22.91 | 22.00 |
|                 | 3RB-High      | 1779.3          | 23.10                     | 22.61 | 21.82 |
|                 |               | 1745            | 23.09                     | 22.59 | 21.78 |
|                 |               | 1710.7          | 23.23                     | 22.70 | 21.91 |
|                 | 3RB-Middle    | 1779.3          | 23.09                     | 22.59 | 21.82 |
|                 |               | 1745            | 23.15                     | 22.63 | 21.83 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       | 3RB-Low     | 1710.7 | 23.22 | 22.72 | 21.94 |
|       |             | 1779.3 | 23.11 | 22.55 | 21.84 |
|       |             | 1745   | 23.12 | 22.56 | 21.84 |
|       | 6RB         | 1710.7 | 23.22 | 22.71 | 21.94 |
|       |             | 1779.3 | 22.60 | 21.77 | 20.63 |
|       |             | 1745   | 22.63 | 21.82 | 20.70 |
|       |             | 1710.7 | 22.71 | 21.91 | 20.79 |
| 3MHz  | 1RB-High    | 1778.5 | 23.03 | 22.69 | 21.80 |
|       |             | 1745   | 23.07 | 22.79 | 21.88 |
|       |             | 1711.5 | 23.15 | 22.85 | 21.99 |
|       | 1RB-Middle  | 1778.5 | 23.09 | 22.80 | 21.90 |
|       |             | 1745   | 23.15 | 22.81 | 21.82 |
|       |             | 1711.5 | 23.27 | 22.85 | 22.03 |
|       | 1RB-Low     | 1778.5 | 23.05 | 22.74 | 21.85 |
|       |             | 1745   | 23.12 | 22.75 | 21.90 |
|       |             | 1711.5 | 23.19 | 22.90 | 21.92 |
|       | 8RB-High    | 1778.5 | 22.58 | 21.75 | 20.75 |
|       |             | 1745   | 22.55 | 21.79 | 20.74 |
|       |             | 1711.5 | 22.70 | 21.89 | 20.82 |
|       | 8RB-Middle  | 1778.5 | 22.52 | 21.75 | 20.73 |
|       |             | 1745   | 22.57 | 21.78 | 20.72 |
|       |             | 1711.5 | 22.67 | 21.92 | 20.84 |
|       | 8RB-Low     | 1778.5 | 22.56 | 21.80 | 20.72 |
|       |             | 1745   | 22.59 | 21.82 | 20.79 |
|       |             | 1711.5 | 22.66 | 21.87 | 20.80 |
|       | 15RB        | 1778.5 | 22.55 | 21.74 | 20.67 |
|       |             | 1745   | 22.52 | 21.74 | 20.72 |
|       |             | 1711.5 | 22.67 | 21.87 | 20.83 |
| 5MHz  | 1RB-High    | 1777.5 | 23.08 | 22.81 | 21.84 |
|       |             | 1745   | 23.10 | 22.77 | 21.86 |
|       |             | 1712.5 | 23.22 | 22.97 | 21.90 |
|       | 1RB-Middle  | 1777.5 | 23.08 | 22.92 | 21.91 |
|       |             | 1745   | 23.21 | 22.81 | 21.98 |
|       |             | 1712.5 | 23.28 | 22.97 | 22.07 |
|       | 1RB-Low     | 1777.5 | 23.06 | 22.84 | 21.86 |
|       |             | 1745   | 23.15 | 22.84 | 21.92 |
|       |             | 1712.5 | 23.22 | 22.87 | 21.93 |
|       | 12RB-High   | 1777.5 | 22.51 | 21.67 | 20.67 |
|       |             | 1745   | 22.53 | 21.67 | 20.70 |
|       |             | 1712.5 | 22.63 | 21.78 | 20.80 |
|       | 12RB-Middle | 1777.5 | 22.56 | 21.70 | 20.74 |
|       |             | 1745   | 22.63 | 21.76 | 20.78 |
|       |             | 1712.5 | 22.73 | 21.84 | 20.85 |
|       | 12RB-Low    | 1777.5 | 22.57 | 21.78 | 20.74 |
|       |             | 1745   | 22.65 | 21.82 | 20.85 |
|       |             | 1712.5 | 22.73 | 21.83 | 20.89 |
|       | 25RB        | 1777.5 | 22.57 | 21.75 | 20.70 |
|       |             | 1745   | 22.58 | 21.74 | 20.70 |
|       |             | 1712.5 | 22.75 | 21.88 | 20.85 |
| 10MHz | 1RB-High    | 1775   | 23.03 | 22.72 | 21.77 |
|       |             | 1745   | 23.05 | 22.66 | 21.76 |
|       |             | 1715   | 23.22 | 23.01 | 22.02 |
|       | 1RB-Middle  | 1775   | 23.04 | 22.89 | 21.88 |
|       |             | 1745   | 23.15 | 22.73 | 21.99 |
|       |             | 1715   | 23.26 | 22.85 | 22.02 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       | 1RB-Low     | 1775   | 23.02 | 22.72 | 21.76 |
|       |             | 1745   | 23.12 | 22.75 | 21.96 |
|       |             | 1715   | 23.23 | 22.80 | 21.92 |
|       | 25RB-High   | 1775   | 22.58 | 21.74 | 20.70 |
|       |             | 1745   | 22.56 | 21.72 | 20.69 |
|       |             | 1715   | 22.74 | 21.90 | 20.88 |
|       | 25RB-Middle | 1775   | 22.59 | 21.75 | 20.64 |
|       |             | 1745   | 22.64 | 21.83 | 20.81 |
|       |             | 1715   | 22.75 | 21.88 | 20.81 |
|       | 25RB-Low    | 1775   | 22.50 | 21.67 | 20.64 |
|       |             | 1745   | 22.65 | 21.85 | 20.82 |
|       |             | 1715   | 22.74 | 21.91 | 20.85 |
| 15MHz | 1RB-High    | 1775   | 22.58 | 21.70 | 20.68 |
|       |             | 1745   | 22.62 | 21.80 | 20.78 |
|       |             | 1715   | 22.77 | 21.91 | 20.90 |
|       | 1RB-Middle  | 1772.5 | 22.96 | 22.67 | 21.78 |
|       |             | 1745   | 23.00 | 22.65 | 21.75 |
|       |             | 1717.5 | 23.13 | 22.89 | 21.90 |
|       | 1RB-Low     | 1772.5 | 23.02 | 22.76 | 21.82 |
|       |             | 1745   | 23.09 | 22.75 | 21.89 |
|       |             | 1717.5 | 23.23 | 22.96 | 22.00 |
|       | 36RB-High   | 1772.5 | 22.91 | 22.61 | 21.74 |
|       |             | 1745   | 23.09 | 22.86 | 21.89 |
|       |             | 1717.5 | 23.15 | 22.81 | 21.92 |
|       | 36RB-Middle | 1772.5 | 22.58 | 21.72 | 20.74 |
|       |             | 1745   | 22.48 | 21.65 | 20.67 |
|       |             | 1717.5 | 22.70 | 21.90 | 20.88 |
|       | 36RB-Low    | 1772.5 | 22.51 | 21.67 | 20.67 |
|       |             | 1745   | 22.58 | 21.77 | 20.75 |
|       |             | 1717.5 | 22.69 | 21.83 | 20.85 |
|       | 75RB        | 1772.5 | 22.44 | 21.64 | 20.66 |
|       |             | 1745   | 22.64 | 21.80 | 20.76 |
|       |             | 1717.5 | 22.69 | 21.83 | 20.84 |
| 20MHz | 1RB-High    | 1772.5 | 22.55 | 21.69 | 20.68 |
|       |             | 1745   | 22.58 | 21.76 | 20.68 |
|       |             | 1717.5 | 22.74 | 21.85 | 20.82 |
|       | 1RB-Middle  | 1770   | 22.96 | 22.62 | 21.76 |
|       |             | 1745   | 23.01 | 22.54 | 21.65 |
|       |             | 1720   | 22.98 | 22.74 | 21.76 |
|       | 1RB-Low     | 1770   | 23.07 | 22.71 | 21.78 |
|       |             | 1745   | 23.11 | 22.74 | 21.90 |
|       |             | 1720   | 23.24 | 23.01 | 21.98 |
|       | 50RB-High   | 1770   | 23.00 | 22.68 | 21.74 |
|       |             | 1745   | 22.97 | 22.61 | 21.75 |
|       |             | 1720   | 23.16 | 22.81 | 21.82 |
|       | 50RB-Middle | 1770   | 22.65 | 21.76 | 20.78 |
|       |             | 1745   | 22.49 | 21.64 | 20.60 |
|       |             | 1720   | 22.78 | 21.88 | 20.87 |
|       | 50RB-Low    | 1770   | 22.57 | 21.68 | 20.69 |
|       |             | 1745   | 22.61 | 21.76 | 20.75 |
|       |             | 1720   | 22.75 | 21.84 | 20.79 |
|       | 100RB       | 1770   | 22.50 | 21.68 | 20.62 |
|       |             | 1745   | 22.65 | 21.77 | 20.75 |
|       |             | 1720   | 22.74 | 21.81 | 20.86 |
|       |             | 1770   | 22.59 | 21.74 | 20.67 |

|  |  |      |       |       |       |
|--|--|------|-------|-------|-------|
|  |  | 1745 | 22.50 | 21.69 | 20.66 |
|  |  | 1720 | 22.78 | 21.90 | 20.86 |

**LTE Band66(ANT31 DSI4)**

| Band 66         |                            |                 |                           |       |       |
|-----------------|----------------------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation<br>RB offset | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 |                            |                 | QPSK                      | 16QAM | 64QAM |
| 1.4MHz          | 1RB-High                   | 1779.3          | 20.65                     | 21.00 | 20.76 |
|                 |                            | 1745            | 20.67                     | 20.92 | 20.85 |
|                 |                            | 1710.7          | 20.77                     | 21.06 | 20.89 |
|                 | 1RB-Middle                 | 1779.3          | 20.66                     | 20.94 | 20.87 |
|                 |                            | 1745            | 20.70                     | 20.94 | 20.89 |
|                 |                            | 1710.7          | 20.77                     | 21.12 | 20.94 |
|                 | 1RB-Low                    | 1779.3          | 20.63                     | 20.90 | 20.90 |
|                 |                            | 1745            | 20.68                     | 20.92 | 20.92 |
|                 |                            | 1710.7          | 20.77                     | 21.05 | 20.93 |
|                 | 3RB-High                   | 1779.3          | 20.67                     | 20.63 | 20.77 |
|                 |                            | 1745            | 20.70                     | 20.70 | 20.81 |
|                 |                            | 1710.7          | 20.76                     | 20.70 | 20.86 |
|                 | 3RB-Middle                 | 1779.3          | 20.70                     | 20.70 | 20.77 |
|                 |                            | 1745            | 20.71                     | 20.74 | 20.80 |
|                 |                            | 1710.7          | 20.79                     | 20.76 | 20.92 |
|                 | 3RB-Low                    | 1779.3          | 20.65                     | 20.73 | 20.73 |
|                 |                            | 1745            | 20.74                     | 20.70 | 20.78 |
|                 |                            | 1710.7          | 20.76                     | 20.82 | 20.91 |
|                 | 6RB                        | 1779.3          | 20.65                     | 20.75 | 20.67 |
|                 |                            | 1745            | 20.75                     | 20.79 | 20.72 |
|                 |                            | 1710.7          | 20.79                     | 20.88 | 20.77 |
| 3MHz            | 1RB-High                   | 1778.5          | 20.65                     | 20.91 | 20.83 |
|                 |                            | 1745            | 20.69                     | 20.93 | 20.87 |
|                 |                            | 1711.5          | 20.72                     | 20.95 | 20.94 |
|                 | 1RB-Middle                 | 1778.5          | 20.64                     | 20.90 | 20.88 |
|                 |                            | 1745            | 20.73                     | 20.87 | 20.85 |
|                 |                            | 1711.5          | 20.77                     | 21.07 | 20.92 |
|                 | 1RB-Low                    | 1778.5          | 20.61                     | 20.92 | 20.80 |
|                 |                            | 1745            | 20.72                     | 20.95 | 20.87 |
|                 |                            | 1711.5          | 20.76                     | 21.07 | 20.94 |
|                 | 8RB-High                   | 1778.5          | 20.63                     | 20.76 | 20.69 |
|                 |                            | 1745            | 20.63                     | 20.70 | 20.73 |
|                 |                            | 1711.5          | 20.75                     | 20.89 | 20.83 |
|                 | 8RB-Middle                 | 1778.5          | 20.65                     | 20.72 | 20.66 |
|                 |                            | 1745            | 20.66                     | 20.74 | 20.71 |
|                 |                            | 1711.5          | 20.78                     | 20.85 | 20.85 |
|                 | 8RB-Low                    | 1778.5          | 20.67                     | 20.73 | 20.69 |
|                 |                            | 1745            | 20.73                     | 20.76 | 20.79 |
|                 |                            | 1711.5          | 20.79                     | 20.88 | 20.84 |
|                 | 15RB                       | 1778.5          | 20.62                     | 20.67 | 20.67 |
|                 |                            | 1745            | 20.67                     | 20.70 | 20.70 |
|                 |                            | 1711.5          | 20.80                     | 20.82 | 20.77 |
| 5MHz            | 1RB-High                   | 1777.5          | 20.73                     | 20.91 | 20.85 |
|                 |                            | 1745            | 20.72                     | 20.87 | 20.80 |
|                 |                            | 1712.5          | 20.82                     | 21.10 | 20.93 |
|                 | 1RB-Middle                 | 1777.5          | 20.68                     | 21.03 | 20.89 |
|                 |                            | 1745            | 20.75                     | 21.01 | 20.89 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       | 1RB-Low     | 1712.5 | 20.84 | 21.15 | 21.02 |
|       |             | 1777.5 | 20.64 | 20.98 | 20.83 |
|       |             | 1745   | 20.76 | 20.89 | 20.84 |
|       | 12RB-High   | 1712.5 | 20.79 | 20.95 | 20.98 |
|       |             | 1777.5 | 20.66 | 20.67 | 20.70 |
|       |             | 1745   | 20.63 | 20.69 | 20.66 |
|       | 12RB-Middle | 1712.5 | 20.71 | 20.75 | 20.76 |
|       |             | 1777.5 | 20.66 | 20.66 | 20.71 |
|       |             | 1745   | 20.72 | 20.75 | 20.79 |
|       | 12RB-Low    | 1712.5 | 20.83 | 20.82 | 20.80 |
|       |             | 1777.5 | 20.69 | 20.71 | 20.73 |
|       |             | 1745   | 20.81 | 20.76 | 20.83 |
|       | 25RB        | 1712.5 | 20.85 | 20.81 | 20.89 |
|       |             | 1777.5 | 20.69 | 20.68 | 20.69 |
|       |             | 1745   | 20.69 | 20.75 | 20.73 |
| 10MHz | 1RB-High    | 1712.5 | 20.84 | 20.83 | 20.84 |
|       |             | 1775   | 20.67 | 21.00 | 20.76 |
|       |             | 1745   | 20.67 | 20.91 | 20.75 |
|       | 1RB-Middle  | 1715   | 20.85 | 21.10 | 21.02 |
|       |             | 1775   | 20.67 | 20.96 | 20.79 |
|       |             | 1745   | 20.77 | 21.02 | 20.91 |
|       | 1RB-Low     | 1715   | 20.80 | 21.10 | 20.97 |
|       |             | 1775   | 20.60 | 20.95 | 20.80 |
|       |             | 1745   | 20.76 | 21.05 | 20.96 |
|       | 25RB-High   | 1715   | 20.79 | 21.00 | 20.87 |
|       |             | 1775   | 20.68 | 20.73 | 20.72 |
|       |             | 1745   | 20.65 | 20.69 | 20.67 |
|       | 25RB-Middle | 1715   | 20.86 | 20.86 | 20.84 |
|       |             | 1775   | 20.71 | 20.68 | 20.65 |
|       |             | 1745   | 20.74 | 20.81 | 20.79 |
|       | 25RB-Low    | 1715   | 20.82 | 20.85 | 20.80 |
|       |             | 1775   | 20.61 | 20.60 | 20.65 |
|       |             | 1745   | 20.82 | 20.81 | 20.82 |
|       | 50RB        | 1715   | 20.88 | 20.90 | 20.89 |
|       |             | 1775   | 20.74 | 20.69 | 20.70 |
|       |             | 1745   | 20.74 | 20.75 | 20.76 |
| 15MHz | 1RB-High    | 1715   | 20.91 | 20.88 | 20.84 |
|       |             | 1772.5 | 20.62 | 20.94 | 20.75 |
|       |             | 1745   | 20.60 | 20.90 | 20.71 |
|       | 1RB-Middle  | 1717.5 | 20.69 | 21.12 | 20.96 |
|       |             | 1772.5 | 20.62 | 20.96 | 20.75 |
|       |             | 1745   | 20.73 | 20.96 | 20.86 |
|       | 1RB-Low     | 1717.5 | 20.83 | 21.16 | 21.06 |
|       |             | 1772.5 | 20.53 | 20.90 | 20.70 |
|       |             | 1745   | 20.72 | 20.94 | 20.96 |
|       | 36RB-High   | 1717.5 | 20.74 | 20.97 | 20.90 |
|       |             | 1772.5 | 20.72 | 20.76 | 20.73 |
|       |             | 1745   | 20.60 | 20.65 | 20.71 |
|       | 36RB-Middle | 1717.5 | 20.84 | 20.85 | 20.85 |
|       |             | 1772.5 | 20.65 | 20.67 | 20.67 |
|       |             | 1745   | 20.72 | 20.77 | 20.77 |
|       | 36RB-Low    | 1717.5 | 20.80 | 20.82 | 20.82 |
|       |             | 1772.5 | 20.56 | 20.62 | 20.62 |
|       |             | 1745   | 20.75 | 20.76 | 20.83 |
|       |             | 1717.5 | 20.81 | 20.79 | 20.82 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
| 20MHz | 75RB        | 1772.5 | 20.63 | 20.65 | 20.65 |
|       |             | 1745   | 20.73 | 20.72 | 20.74 |
|       |             | 1717.5 | 20.81 | 20.82 | 20.79 |
|       | 1RB-High    | 1770   | 20.56 | 20.85 | 20.76 |
|       |             | 1745   | 20.60 | 20.72 | 20.69 |
|       |             | 1720   | 20.57 | 20.92 | 20.71 |
|       | 1RB-Middle  | 1770   | 20.57 | 20.95 | 20.78 |
|       |             | 1745   | 20.69 | 20.92 | 20.80 |
|       |             | 1720   | 20.77 | 21.15 | 20.91 |
|       | 1RB-Low     | 1770   | 20.56 | 20.84 | 20.77 |
|       |             | 1745   | 20.54 | 20.80 | 20.70 |
|       |             | 1720   | 20.72 | 20.98 | 20.89 |
|       | 50RB-High   | 1770   | 20.80 | 20.78 | 20.79 |
|       |             | 1745   | 20.57 | 20.61 | 20.60 |
|       |             | 1720   | 20.94 | 20.88 | 20.85 |
|       | 50RB-Middle | 1770   | 20.71 | 20.64 | 20.63 |
|       |             | 1745   | 20.71 | 20.69 | 20.73 |
|       |             | 1720   | 20.86 | 20.78 | 20.81 |
|       | 50RB-Low    | 1770   | 20.67 | 20.61 | 20.67 |
|       |             | 1745   | 20.77 | 20.70 | 20.76 |
|       |             | 1720   | 20.87 | 20.82 | 20.82 |
|       | 100RB       | 1770   | 20.70 | 20.70 | 20.70 |
|       |             | 1745   | 20.64 | 20.59 | 20.62 |
|       |             | 1720   | 20.83 | 20.85 | 20.86 |

#### LTE Band66(ANT31 DSI8/9/10)

| Band 66         |                            |                 |                           |       |       |
|-----------------|----------------------------|-----------------|---------------------------|-------|-------|
| Bandwidth (MHz) | RB allocation<br>RB offset | Frequency (MHz) | Actual output power (dBm) |       |       |
|                 |                            |                 | QPSK                      | 16QAM | 64QAM |
| 1.4MHz          | 1RB-High                   | 1779.3          | 19.55                     | 19.97 | 19.76 |
|                 |                            | 1745            | 19.61                     | 19.87 | 19.75 |
|                 |                            | 1710.7          | 19.71                     | 19.98 | 19.83 |
|                 | 1RB-Middle                 | 1779.3          | 19.59                     | 19.92 | 19.72 |
|                 |                            | 1745            | 19.67                     | 19.86 | 19.81 |
|                 |                            | 1710.7          | 19.70                     | 19.86 | 19.85 |
|                 | 1RB-Low                    | 1779.3          | 19.54                     | 19.92 | 19.71 |
|                 |                            | 1745            | 19.63                     | 19.99 | 19.74 |
|                 |                            | 1710.7          | 19.69                     | 20.05 | 19.91 |
|                 | 3RB-High                   | 1779.3          | 19.63                     | 19.65 | 19.74 |
|                 |                            | 1745            | 19.63                     | 19.62 | 19.74 |
|                 |                            | 1710.7          | 19.69                     | 19.67 | 19.88 |
|                 | 3RB-Middle                 | 1779.3          | 19.59                     | 19.64 | 19.73 |
|                 |                            | 1745            | 19.66                     | 19.70 | 19.72 |
|                 |                            | 1710.7          | 19.72                     | 19.73 | 19.84 |
|                 | 3RB-Low                    | 1779.3          | 19.62                     | 19.57 | 19.68 |
|                 |                            | 1745            | 19.66                     | 19.59 | 19.73 |
|                 |                            | 1710.7          | 19.71                     | 19.68 | 19.85 |
|                 | 6RB                        | 1779.3          | 19.57                     | 19.72 | 19.60 |
|                 |                            | 1745            | 19.63                     | 19.75 | 19.66 |
|                 |                            | 1710.7          | 19.73                     | 19.82 | 19.70 |
| 3MHz            | 1RB-High                   | 1778.5          | 19.54                     | 19.94 | 19.69 |
|                 |                            | 1745            | 19.62                     | 19.94 | 19.82 |
|                 |                            | 1711.5          | 19.69                     | 19.97 | 19.82 |
|                 | 1RB-Middle                 | 1778.5          | 19.55                     | 19.91 | 19.90 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       |             | 1745   | 19.66 | 19.95 | 19.83 |
|       |             | 1711.5 | 19.75 | 20.02 | 19.85 |
|       |             | 1778.5 | 19.55 | 20.00 | 19.80 |
|       | 1RB-Low     | 1745   | 19.66 | 19.86 | 19.84 |
|       |             | 1711.5 | 19.73 | 20.02 | 19.92 |
|       |             | 1778.5 | 19.59 | 19.72 | 19.60 |
|       | 8RB-High    | 1745   | 19.62 | 19.69 | 19.67 |
|       |             | 1711.5 | 19.76 | 19.76 | 19.74 |
|       |             | 1778.5 | 19.58 | 19.66 | 19.63 |
|       | 8RB-Middle  | 1745   | 19.64 | 19.69 | 19.68 |
|       |             | 1711.5 | 19.76 | 19.80 | 19.78 |
|       |             | 1778.5 | 19.62 | 19.65 | 19.62 |
|       | 8RB-Low     | 1745   | 19.67 | 19.77 | 19.74 |
|       |             | 1711.5 | 19.74 | 19.78 | 19.76 |
|       |             | 1778.5 | 19.57 | 19.62 | 19.60 |
| 5MHz  | 1RB-High    | 1777.5 | 19.58 | 19.91 | 19.71 |
|       |             | 1745   | 19.66 | 19.91 | 19.80 |
|       |             | 1712.5 | 19.73 | 20.15 | 19.93 |
|       | 1RB-Middle  | 1777.5 | 19.63 | 19.98 | 19.80 |
|       |             | 1745   | 19.68 | 19.97 | 19.90 |
|       |             | 1712.5 | 19.77 | 20.04 | 19.90 |
|       | 1RB-Low     | 1777.5 | 19.58 | 20.01 | 19.80 |
|       |             | 1745   | 19.69 | 19.93 | 19.82 |
|       |             | 1712.5 | 19.74 | 19.99 | 19.94 |
|       | 12RB-High   | 1777.5 | 19.61 | 19.58 | 19.64 |
|       |             | 1745   | 19.60 | 19.59 | 19.61 |
|       |             | 1712.5 | 19.72 | 19.65 | 19.72 |
|       | 12RB-Middle | 1777.5 | 19.64 | 19.59 | 19.64 |
|       |             | 1745   | 19.68 | 19.70 | 19.75 |
|       |             | 1712.5 | 19.76 | 19.75 | 19.76 |
|       | 12RB-Low    | 1777.5 | 19.62 | 19.63 | 19.64 |
|       |             | 1745   | 19.75 | 19.70 | 19.73 |
|       |             | 1712.5 | 19.81 | 19.75 | 19.78 |
|       | 25RB        | 1777.5 | 19.63 | 19.66 | 19.65 |
|       |             | 1745   | 19.67 | 19.67 | 19.68 |
|       |             | 1712.5 | 19.79 | 19.79 | 19.77 |
| 10MHz | 1RB-High    | 1775   | 19.57 | 19.84 | 19.75 |
|       |             | 1745   | 19.61 | 19.93 | 19.70 |
|       |             | 1715   | 19.73 | 20.07 | 20.01 |
|       | 1RB-Middle  | 1775   | 19.57 | 20.01 | 19.78 |
|       |             | 1745   | 19.72 | 20.02 | 19.77 |
|       |             | 1715   | 19.78 | 19.97 | 19.93 |
|       | 1RB-Low     | 1775   | 19.52 | 19.90 | 19.70 |
|       |             | 1745   | 19.69 | 20.01 | 19.83 |
|       |             | 1715   | 19.72 | 19.99 | 19.84 |
|       | 25RB-High   | 1775   | 19.63 | 19.65 | 19.69 |
|       |             | 1745   | 19.62 | 19.60 | 19.61 |
|       |             | 1715   | 19.79 | 19.84 | 19.80 |
|       | 25RB-Middle | 1775   | 19.57 | 19.63 | 19.60 |
|       |             | 1745   | 19.72 | 19.72 | 19.73 |
|       |             | 1715   | 19.78 | 19.77 | 19.78 |
|       | 25RB-Low    | 1775   | 19.57 | 19.57 | 19.60 |
|       |             | 1745   | 19.74 | 19.78 | 19.77 |

|       |             |        |       |       |       |
|-------|-------------|--------|-------|-------|-------|
|       | 50RB        | 1715   | 19.83 | 19.79 | 19.81 |
|       |             | 1775   | 19.67 | 19.64 | 19.67 |
|       |             | 1745   | 19.67 | 19.74 | 19.74 |
|       |             | 1715   | 19.82 | 19.84 | 19.84 |
| 15MHz | 1RB-High    | 1772.5 | 19.53 | 19.89 | 19.71 |
|       |             | 1745   | 19.52 | 19.85 | 19.72 |
|       |             | 1717.5 | 19.66 | 20.12 | 19.84 |
|       | 1RB-Middle  | 1772.5 | 19.54 | 19.96 | 19.73 |
|       |             | 1745   | 19.64 | 19.98 | 19.84 |
|       |             | 1717.5 | 19.69 | 20.18 | 19.94 |
|       | 1RB-Low     | 1772.5 | 19.40 | 19.87 | 19.60 |
|       |             | 1745   | 19.64 | 19.88 | 19.88 |
|       |             | 1717.5 | 19.67 | 19.95 | 19.79 |
|       | 36RB-High   | 1772.5 | 19.62 | 19.64 | 19.66 |
|       |             | 1745   | 19.59 | 19.60 | 19.58 |
|       |             | 1717.5 | 19.74 | 19.77 | 19.80 |
|       | 36RB-Middle | 1772.5 | 19.53 | 19.56 | 19.60 |
|       |             | 1745   | 19.67 | 19.68 | 19.74 |
|       |             | 1717.5 | 19.73 | 19.77 | 19.78 |
|       | 36RB-Low    | 1772.5 | 19.53 | 19.57 | 19.55 |
|       |             | 1745   | 19.72 | 19.67 | 19.71 |
|       |             | 1717.5 | 19.72 | 19.81 | 19.77 |
|       | 75RB        | 1772.5 | 19.59 | 19.58 | 19.60 |
|       |             | 1745   | 19.64 | 19.68 | 19.61 |
|       |             | 1717.5 | 19.79 | 19.73 | 19.76 |
| 20MHz | 1RB-High    | 1770   | 19.51 | 19.91 | 19.65 |
|       |             | 1745   | 19.53 | 19.87 | 19.76 |
|       |             | 1720   | 19.48 | 20.00 | 19.68 |
|       | 1RB-Middle  | 1770   | 19.52 | 19.84 | 19.67 |
|       |             | 1745   | 19.71 | 19.85 | 19.89 |
|       |             | 1720   | 19.72 | 19.93 | 19.95 |
|       | 1RB-Low     | 1770   | 19.50 | 19.85 | 19.70 |
|       |             | 1745   | 19.48 | 19.88 | 19.63 |
|       |             | 1720   | 19.67 | 19.92 | 19.77 |
|       | 50RB-High   | 1770   | 19.73 | 19.69 | 19.68 |
|       |             | 1745   | 19.57 | 19.55 | 19.53 |
|       |             | 1720   | 19.83 | 19.78 | 19.80 |
|       | 50RB-Middle | 1770   | 19.63 | 19.61 | 19.59 |
|       |             | 1745   | 19.67 | 19.68 | 19.66 |
|       |             | 1720   | 19.79 | 19.74 | 19.77 |
|       | 50RB-Low    | 1770   | 19.60 | 19.60 | 19.57 |
|       |             | 1745   | 19.69 | 19.68 | 19.70 |
|       |             | 1720   | 19.82 | 19.76 | 19.77 |
|       | 100RB       | 1770   | 19.64 | 19.65 | 19.62 |
|       |             | 1745   | 19.57 | 19.60 | 19.60 |
|       |             | 1720   | 19.82 | 19.78 | 19.78 |

The following tests were conducted according to the test requirements outlined in section 6.2 of the 3GPP TS36.101 specification. 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 1, 2 and 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      |
| 256 QAM    | ≥ 1                                                           |         |       |        |        |        | ≤ 5      |

### LTE Carrier Aggregation Conducted Power (Uplink)

This device supports uplink carrier aggregation for LTE CA\_7C, CA\_38C and CA\_41C with a maximum of two 20MHz component carriers. For intra band contiguous carrier aggregation scenarios, 3GPP specifies that the aggregate maximum allowed output power is equivalent to the single carrier scenario. For the non-contiguously allocated resource blocks which the MPR level is determined by various RB separation and RB sizes requirement, and the allowed MPR levels, settings and the conducted powers are permanently implemented in this device per the 3GPP requirements.

According to FCC guidance, the output power with uplink CA active was measured for the high / middle / low channel configuration with the highest reported SAR for each exposure condition, the power was measured with wideband signal integration over both component carriers.

In applying the power measurement procedures of KDB 941225 D05A for DL CA to qualify for UL SAR test exclusion, power measurement is required only for the subset in each row with the largest combination of frequency bands and CCs

Maximum output power measurement is required for each UL CA configuration for the required test channels described in KDB 941225 D05. The required test channel should be associated with the UL PCC. For channels at the ends of a frequency band, the SCC and subsequent CCs are added to the side within the transmission band. Otherwise, the CCs should be added alternatively to either side of the PCC.

## 7C ANT13

| UL LTE CA Class | DSI2/3        |            |            |       |              |               |            |       |              |         |                       |
|-----------------|---------------|------------|------------|-------|--------------|---------------|------------|-------|--------------|---------|-----------------------|
|                 | PCC           |            |            |       |              | SCC           |            |       |              | Power   |                       |
|                 | PCC Bandwidth | UL channel | DL channel | UL RB | UL RB OFFSET | SCC Bandwidth | DL channel | UL RB | UL RB OFFSET | tune up | conducted power (dBm) |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 99           | 20M           | 3152       | 1     | 0            | 16      | 13.63                 |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 99           | 15M           | 3179       | 1     | 0            | 16      | 13.75                 |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 99           | 10M           | 3206       | 1     | 0            | 16      | 13.82                 |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 99           | 20M           | 3048       | 1     | 0            | 16      | 14.55                 |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 99           | 15M           | 3021       | 1     | 0            | 16      | 14.54                 |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 99           | 10M           | 2994       | 1     | 0            | 16      | 14.5                  |
| CA_7C           | 15M           | 21375      | 3375       | 1     | 74           | 15M           | 3225       | 1     | 0            | 16      | 13.9                  |
| CA_7C           | 15M           | 20825      | 2825       | 1     | 74           | 15M           | 2975       | 1     | 0            | 16      | 14.63                 |
| CA_7C           | 15M           | 20825      | 2825       | 1     | 74           | 10M           | 2945       | 1     | 0            | 16      | 14.65                 |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 0            | 20M           | 3152       | 1     | 99           | 16      | 14.56                 |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 0            | 15M           | 3179       | 1     | 74           | 16      | 14.54                 |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 0            | 10M           | 3206       | 1     | 49           | 16      | 14.52                 |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 0            | 20M           | 3048       | 1     | 99           | 16      | 13.25                 |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 0            | 15M           | 3021       | 1     | 74           | 16      | 13.4                  |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 0            | 10M           | 2994       | 1     | 49           | 16      | 13.46                 |
| CA_7C           | 15M           | 21375      | 3375       | 1     | 0            | 15M           | 3225       | 1     | 74           | 16      | 14.67                 |
| CA_7C           | 15M           | 20825      | 2825       | 1     | 0            | 15M           | 2975       | 1     | 74           | 16      | 13.65                 |
| CA_7C           | 15M           | 20825      | 2825       | 1     | 0            | 10M           | 2945       | 1     | 49           | 16      | 13.74                 |

| UL LTE CA Class | DSI4          |            |            |       |              |               |            |       |              |         |                       |  |
|-----------------|---------------|------------|------------|-------|--------------|---------------|------------|-------|--------------|---------|-----------------------|--|
|                 | PCC           |            |            |       |              | SCC           |            |       |              |         | Power                 |  |
|                 | PCC Bandwidth | UL channel | DL channel | UL RB | UL RB OFFSET | SCC Bandwidth | DL channel | UL RB | UL RB OFFSET | tune up | conducted power (dBm) |  |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 99           | 20M           | 3152       | 1     | 0            | 23.5    | 13.49                 |  |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 99           | 15M           | 3179       | 1     | 0            | 23.5    | 13.61                 |  |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 99           | 10M           | 3206       | 1     | 0            | 23.5    | 13.68                 |  |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 99           | 20M           | 3048       | 1     | 0            | 23.5    | 22.02                 |  |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 99           | 15M           | 3021       | 1     | 0            | 23.5    | 22.01                 |  |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 99           | 10M           | 2994       | 1     | 0            | 23.5    | 21.95                 |  |
| CA_7C           | 15M           | 21375      | 3375       | 1     | 74           | 15M           | 3225       | 1     | 0            | 23.5    | 13.76                 |  |
| CA_7C           | 15M           | 20825      | 2825       | 1     | 74           | 15M           | 2975       | 1     | 0            | 23.5    | 22.15                 |  |
| CA_7C           | 15M           | 20825      | 2825       | 1     | 74           | 10M           | 2945       | 1     | 0            | 23.5    | 22.18                 |  |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 0            | 20M           | 3152       | 1     | 99           | 23.5    | 22.04                 |  |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 0            | 15M           | 3179       | 1     | 74           | 23.5    | 22.01                 |  |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 0            | 10M           | 3206       | 1     | 49           | 23.5    | 21.98                 |  |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 0            | 20M           | 3048       | 1     | 99           | 23.5    | 13.11                 |  |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 0            | 15M           | 3021       | 1     | 74           | 23.5    | 13.26                 |  |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 0            | 10M           | 2994       | 1     | 49           | 23.5    | 13.32                 |  |
| CA_7C           | 15M           | 21375      | 3375       | 1     | 0            | 15M           | 3225       | 1     | 74           | 23.5    | 22.21                 |  |
| CA_7C           | 15M           | 20825      | 2825       | 1     | 0            | 15M           | 2975       | 1     | 74           | 23.5    | 13.51                 |  |
| CA_7C           | 15M           | 20825      | 2825       | 1     | 0            | 10M           | 2945       | 1     | 49           | 23.5    | 13.6                  |  |

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|-----------------|---------------|------------|------------|-------|--------------|---------------|------------|-------|--------------|---------|-----------------------|
| UL LTE CA Class | PCC           |            |            |       |              | SCC           |            |       |              | Power   |                       |
|                 | PCC Bandwidth | UL channel | DL channel | UL RB | UL RB OFFSET | SCC Bandwidth | DL channel | UL RB | UL RB OFFSET | tune up | conducted power (dBm) |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 99           | 20M           | 3152       | 1     | 0            | 18.5    | 13.48                 |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 99           | 15M           | 3179       | 1     | 0            | 18.5    | 13.6                  |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 99           | 10M           | 3206       | 1     | 0            | 18.5    | 13.68                 |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 99           | 20M           | 3048       | 1     | 0            | 18.5    | 17                    |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 99           | 15M           | 3021       | 1     | 0            | 18.5    | 16.99                 |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 99           | 10M           | 2994       | 1     | 0            | 18.5    | 16.94                 |
| CA_7C           | 15M           | 21375      | 3375       | 1     | 74           | 15M           | 3225       | 1     | 0            | 18.5    | 13.74                 |
| CA_7C           | 15M           | 20825      | 2825       | 1     | 74           | 15M           | 2975       | 1     | 0            | 18.5    | 17.09                 |
| CA_7C           | 15M           | 20825      | 2825       | 1     | 74           | 10M           | 2945       | 1     | 0            | 18.5    | 17.12                 |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 0            | 20M           | 3152       | 1     | 99           | 18.5    | 17.01                 |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 0            | 15M           | 3179       | 1     | 74           | 18.5    | 16.99                 |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 0            | 10M           | 3206       | 1     | 49           | 18.5    | 16.96                 |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 0            | 20M           | 3048       | 1     | 99           | 18.5    | 13.11                 |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 0            | 15M           | 3021       | 1     | 74           | 18.5    | 13.25                 |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 0            | 10M           | 2994       | 1     | 49           | 18.5    | 13.31                 |
| CA_7C           | 15M           | 21375      | 3375       | 1     | 0            | 15M           | 3225       | 1     | 74           | 18.5    | 17.14                 |
| CA_7C           | 15M           | 20825      | 2825       | 1     | 0            | 15M           | 2975       | 1     | 74           | 18.5    | 13.52                 |
| CA_7C           | 15M           | 20825      | 2825       | 1     | 0            | 10M           | 2945       | 1     | 49           | 18.5    | 13.59                 |

## 7C ANT31

| DSI2/3          |               |            |            |       |              |               |            |       |              |         |                       |
|-----------------|---------------|------------|------------|-------|--------------|---------------|------------|-------|--------------|---------|-----------------------|
| UL LTE CA Class | PCC           |            |            |       |              | SCC           |            |       |              | Power   |                       |
|                 | PCC Bandwidth | UL channel | DL channel | UL RB | UL RB OFFSET | SCC Bandwidth | DL channel | UL RB | UL RB OFFSET | tune up | conducted power (dBm) |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 99           | 20M           | 3152       | 1     | 0            | 24      | 13.75                 |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 99           | 15M           | 3179       | 1     | 0            | 24      | 13.87                 |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 99           | 10M           | 3206       | 1     | 0            | 24      | 13.94                 |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 99           | 20M           | 3048       | 1     | 0            | 24      | 22.56                 |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 99           | 15M           | 3021       | 1     | 0            | 24      | 22.55                 |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 99           | 10M           | 2994       | 1     | 0            | 24      | 22.49                 |
| CA_7C           | 15M           | 21375      | 3375       | 1     | 74           | 15M           | 3225       | 1     | 0            | 24      | 14.02                 |
| CA_7C           | 15M           | 20825      | 2825       | 1     | 74           | 15M           | 2975       | 1     | 0            | 24      | 22.69                 |
| CA_7C           | 15M           | 20825      | 2825       | 1     | 74           | 10M           | 2945       | 1     | 0            | 24      | 22.72                 |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 0            | 20M           | 3152       | 1     | 99           | 24      | 22.58                 |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 0            | 15M           | 3179       | 1     | 74           | 24      | 22.55                 |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 0            | 10M           | 3206       | 1     | 49           | 24      | 22.52                 |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 0            | 20M           | 3048       | 1     | 99           | 24      | 13.37                 |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 0            | 15M           | 3021       | 1     | 74           | 24      | 13.52                 |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 0            | 10M           | 2994       | 1     | 49           | 24      | 13.58                 |
| CA_7C           | 15M           | 21375      | 3375       | 1     | 0            | 15M           | 3225       | 1     | 74           | 24      | 22.75                 |
| CA_7C           | 15M           | 20825      | 2825       | 1     | 0            | 15M           | 2975       | 1     | 74           | 24      | 13.77                 |
| CA_7C           | 15M           | 20825      | 2825       | 1     | 0            | 10M           | 2945       | 1     | 49           | 24      | 13.86                 |

| UL LTE CA Class | DSI4          |            |            |       |              |               |            |       |              |         |                       |  |
|-----------------|---------------|------------|------------|-------|--------------|---------------|------------|-------|--------------|---------|-----------------------|--|
|                 | PCC           |            |            |       |              | SCC           |            |       |              |         | Power                 |  |
|                 | PCC Bandwidth | UL channel | DL channel | UL RB | UL RB OFFSET | SCC Bandwidth | DL channel | UL RB | UL RB OFFSET | tune up | conducted power (dBm) |  |
| CA 7C           | 20M           | 21350      | 3350       | 1     | 99           | 20M           | 3152       | 1     | 0            | 22      | 13.72                 |  |
| CA 7C           | 20M           | 21350      | 3350       | 1     | 99           | 15M           | 3179       | 1     | 0            | 22      | 13.84                 |  |
| CA 7C           | 20M           | 21350      | 3350       | 1     | 99           | 10M           | 3206       | 1     | 0            | 22      | 13.91                 |  |
| CA 7C           | 20M           | 20850      | 2850       | 1     | 99           | 20M           | 3048       | 1     | 0            | 22      | 20.56                 |  |
| CA 7C           | 20M           | 20850      | 2850       | 1     | 99           | 15M           | 3021       | 1     | 0            | 22      | 20.54                 |  |
| CA 7C           | 20M           | 20850      | 2850       | 1     | 99           | 10M           | 2994       | 1     | 0            | 22      | 20.49                 |  |
| CA 7C           | 15M           | 21375      | 3375       | 1     | 74           | 15M           | 3225       | 1     | 0            | 22      | 13.99                 |  |
| CA 7C           | 15M           | 20825      | 2825       | 1     | 74           | 15M           | 2975       | 1     | 0            | 22      | 20.67                 |  |
| CA 7C           | 15M           | 20825      | 2825       | 1     | 74           | 10M           | 2945       | 1     | 0            | 22      | 20.7                  |  |
| CA 7C           | 20M           | 21350      | 3350       | 1     | 0            | 20M           | 3152       | 1     | 99           | 22      | 20.57                 |  |
| CA 7C           | 20M           | 21350      | 3350       | 1     | 0            | 15M           | 3179       | 1     | 74           | 22      | 20.54                 |  |
| CA 7C           | 20M           | 21350      | 3350       | 1     | 0            | 10M           | 3206       | 1     | 49           | 22      | 20.51                 |  |
| CA 7C           | 20M           | 20850      | 2850       | 1     | 0            | 20M           | 3048       | 1     | 99           | 22      | 13.34                 |  |
| CA 7C           | 20M           | 20850      | 2850       | 1     | 0            | 15M           | 3021       | 1     | 74           | 22      | 13.49                 |  |
| CA 7C           | 20M           | 20850      | 2850       | 1     | 0            | 10M           | 2994       | 1     | 49           | 22      | 13.55                 |  |
| CA 7C           | 15M           | 21375      | 3375       | 1     | 0            | 15M           | 3225       | 1     | 74           | 22      | 20.73                 |  |
| CA 7C           | 15M           | 20825      | 2825       | 1     | 0            | 15M           | 2975       | 1     | 74           | 22      | 13.74                 |  |
| CA 7C           | 15M           | 20825      | 2825       | 1     | 0            | 10M           | 2945       | 1     | 49           | 22      | 13.83                 |  |

| DSi8/9/10      |               |            |            |       |              |               |            |       |              |         |                       |
|----------------|---------------|------------|------------|-------|--------------|---------------|------------|-------|--------------|---------|-----------------------|
| UL TE CA Class | PCC           |            |            |       |              | SCC           |            |       |              | Power   |                       |
|                | PCC Bandwidth | UL channel | DL channel | UL RB | UL RB OFFSET | SCC Bandwidth | DL channel | UL RB | UL RB OFFSET | tune up | conducted power (dBm) |
| CA_7C          | 20M           | 21350      | 3350       | 1     | 99           | 20M           | 3152       | 1     | 0            | 21      | 13.72                 |
| CA_7C          | 20M           | 21350      | 3350       | 1     | 99           | 15M           | 3179       | 1     | 0            | 21      | 13.82                 |
| CA_7C          | 20M           | 21350      | 3350       | 1     | 99           | 10M           | 3206       | 1     | 0            | 21      | 13.92                 |
| CA_7C          | 20M           | 20850      | 2850       | 1     | 99           | 20M           | 3048       | 1     | 0            | 21      | 19.56                 |
| CA_7C          | 20M           | 20850      | 2850       | 1     | 99           | 15M           | 3021       | 1     | 0            | 21      | 19.54                 |
| CA_7C          | 20M           | 20850      | 2850       | 1     | 99           | 10M           | 2994       | 1     | 0            | 21      | 19.49                 |
| CA_7C          | 15M           | 21375      | 3375       | 1     | 74           | 15M           | 3225       | 1     | 0            | 21      | 13.97                 |
| CA_7C          | 15M           | 20825      | 2825       | 1     | 74           | 15M           | 2975       | 1     | 0            | 21      | 19.66                 |
| CA_7C          | 15M           | 20825      | 2825       | 1     | 74           | 10M           | 2945       | 1     | 0            | 21      | 19.69                 |
| CA_7C          | 20M           | 21350      | 3350       | 1     | 0            | 20M           | 3152       | 1     | 99           | 21      | 19.57                 |
| CA_7C          | 20M           | 21350      | 3350       | 1     | 0            | 15M           | 3179       | 1     | 74           | 21      | 19.54                 |
| CA_7C          | 20M           | 21350      | 3350       | 1     | 0            | 10M           | 3206       | 1     | 49           | 21      | 19.52                 |
| CA_7C          | 20M           | 20850      | 2850       | 1     | 0            | 20M           | 3048       | 1     | 99           | 21      | 13.33                 |
| CA_7C          | 20M           | 20850      | 2850       | 1     | 0            | 15M           | 3021       | 1     | 74           | 21      | 13.5                  |
| CA_7C          | 20M           | 20850      | 2850       | 1     | 0            | 10M           | 2994       | 1     | 49           | 21      | 13.53                 |
| CA_7C          | 15M           | 21375      | 3375       | 1     | 0            | 15M           | 3225       | 1     | 74           | 21      | 19.72                 |
| CA_7C          | 15M           | 20825      | 2825       | 1     | 0            | 15M           | 2975       | 1     | 74           | 21      | 13.74                 |
| CA_7C          | 15M           | 20825      | 2825       | 1     | 0            | 10M           | 2945       | 1     | 49           | 21      | 13.83                 |

### 38C ANT13

| DSI2/3          |               |            |    |           |               |         |    |           |         |                       |
|-----------------|---------------|------------|----|-----------|---------------|---------|----|-----------|---------|-----------------------|
| UL LTE CA Class | PCC           |            |    |           | SCC           |         |    |           | Power   |                       |
|                 | PCC Bandwidth | UL channel | RB | RB OFFSET | SCC Bandwidth | channel | RB | RB OFFSET | tune up | conducted power (dBm) |
| CA 38C          | 20M           | 38150      | 1  | 99        | 20M           | 37952   | 1  | 0         | 19      | 13.98                 |
| CA 38C          | 20M           | 37850      | 1  | 99        | 20M           | 38048   | 1  | 0         | 19      | 17.87                 |
| CA 38C          | 15M           | 38175      | 1  | 74        | 15M           | 38025   | 1  | 0         | 19      | 14.33                 |
| CA 38C          | 15M           | 37825      | 1  | 74        | 15M           | 37975   | 1  | 0         | 19      | 18.03                 |
| CA 38C          | 20M           | 38150      | 1  | 0         | 20M           | 37952   | 1  | 99        | 19      | 17.95                 |
| CA 38C          | 20M           | 37850      | 1  | 0         | 20M           | 38048   | 1  | 99        | 19      | 13.77                 |
| CA 38C          | 15M           | 38175      | 1  | 0         | 15M           | 38025   | 1  | 74        | 19      | 18.08                 |
| CA 38C          | 15M           | 37825      | 1  | 0         | 15M           | 37975   | 1  | 74        | 19      | 14.15                 |

| DSI4            |               |         |    |           |               |         |    |           |         |                       |
|-----------------|---------------|---------|----|-----------|---------------|---------|----|-----------|---------|-----------------------|
| UL LTE CA Class | PCC           |         |    |           | SCC           |         |    |           | Power   |                       |
|                 | PCC Bandwidth | channel | RB | RB OFFSET | SCC Bandwidth | channel | RB | RB OFFSET | tune up | conducted power (dBm) |
| CA 38C          | 20M           | 38150   | 1  | 99        | 20M           | 37952   | 1  | 0         | 24      | 13.97                 |
| CA 38C          | 20M           | 37850   | 1  | 99        | 20M           | 38048   | 1  | 0         | 24      | 22.79                 |
| CA 38C          | 15M           | 38175   | 1  | 74        | 15M           | 38025   | 1  | 0         | 24      | 14.33                 |
| CA 38C          | 15M           | 37825   | 1  | 74        | 15M           | 37975   | 1  | 0         | 24      | 22.99                 |
| CA 38C          | 20M           | 38150   | 1  | 0         | 20M           | 37952   | 1  | 99        | 24      | 22.89                 |
| CA 38C          | 20M           | 37850   | 1  | 0         | 20M           | 38048   | 1  | 99        | 24      | 13.78                 |
| CA 38C          | 15M           | 38175   | 1  | 0         | 15M           | 38025   | 1  | 74        | 24      | 23.06                 |
| CA 38C          | 15M           | 37825   | 1  | 0         | 15M           | 37975   | 1  | 74        | 24      | 14.12                 |

| DSI8/9/10       |               |         |    |           |               |         |    |           |         |                       |
|-----------------|---------------|---------|----|-----------|---------------|---------|----|-----------|---------|-----------------------|
| UL LTE CA Class | PCC           |         |    |           | SCC           |         |    |           | Power   |                       |
|                 | PCC Bandwidth | channel | RB | RB OFFSET | SCC Bandwidth | channel | RB | RB OFFSET | tune up | conducted power (dBm) |
| CA 38C          | 20M           | 38150   | 1  | 99        | 20M           | 37952   | 1  | 0         | 22.5    | 13.96                 |
| CA 38C          | 20M           | 37850   | 1  | 99        | 20M           | 38048   | 1  | 0         | 22.5    | 21.28                 |
| CA 38C          | 15M           | 38175   | 1  | 74        | 15M           | 38025   | 1  | 0         | 22.5    | 14.31                 |
| CA 38C          | 15M           | 37825   | 1  | 74        | 15M           | 37975   | 1  | 0         | 22.5    | 21.48                 |
| CA 38C          | 20M           | 38150   | 1  | 0         | 20M           | 37952   | 1  | 99        | 22.5    | 21.38                 |
| CA 38C          | 20M           | 37850   | 1  | 0         | 20M           | 38048   | 1  | 99        | 22.5    | 13.78                 |
| CA 38C          | 15M           | 38175   | 1  | 0         | 15M           | 38025   | 1  | 74        | 22.5    | 21.53                 |
| CA 38C          | 15M           | 37825   | 1  | 0         | 15M           | 37975   | 1  | 74        | 22.5    | 14.11                 |

### 38C ANT31

| DSI2/3/4/8/9/10 |               |         |    |           |               |         |    |           |         |                       |
|-----------------|---------------|---------|----|-----------|---------------|---------|----|-----------|---------|-----------------------|
| UL LTE CA Class | PCC           |         |    |           | SCC           |         |    |           | Power   |                       |
|                 | PCC Bandwidth | channel | RB | RB OFFSET | SCC Bandwidth | channel | RB | RB OFFSET | tune up | conducted power (dBm) |
| CA 38C          | 20M           | 38150   | 1  | 99        | 20M           | 37952   | 1  | 0         | 24      | 14.17                 |
| CA 38C          | 20M           | 37850   | 1  | 99        | 20M           | 38048   | 1  | 0         | 24      | 22.98                 |
| CA 38C          | 15M           | 38175   | 1  | 74        | 15M           | 38025   | 1  | 0         | 24      | 14.52                 |
| CA 38C          | 15M           | 37825   | 1  | 74        | 15M           | 37975   | 1  | 0         | 24      | 23.18                 |
| CA 38C          | 20M           | 38150   | 1  | 0         | 20M           | 37952   | 1  | 99        | 24      | 23.08                 |
| CA 38C          | 20M           | 37850   | 1  | 0         | 20M           | 38048   | 1  | 99        | 24      | 13.96                 |
| CA 38C          | 15M           | 38175   | 1  | 0         | 15M           | 38025   | 1  | 74        | 24      | 23.25                 |
| CA 38C          | 15M           | 37825   | 1  | 0         | 15M           | 37975   | 1  | 74        | 24      | 14.34                 |

## 41C ANT13

| UL LTE CA Class | DSI2/3        |         |    |           |               |         |    |           |         |                       |  |
|-----------------|---------------|---------|----|-----------|---------------|---------|----|-----------|---------|-----------------------|--|
|                 | PCC           |         |    |           |               | SCC     |    |           |         | Power                 |  |
|                 | PCC Bandwidth | channel | RB | RB OFFSET | SCC Bandwidth | channel | RB | RB OFFSET | tune up | conducted power (dEm) |  |
| CA 41C          | 20M           | 41490   | 1  | 99        | 20M           | 41292   | 1  | 0         | 17.5    | 13.86                 |  |
| CA 41C          | 20M           | 41490   | 1  | 99        | 15M           | 41319   | 1  | 0         | 17.5    | 14.03                 |  |
| CA 41C          | 20M           | 41490   | 1  | 99        | 10M           | 41346   | 1  | 0         | 17.5    | 14.01                 |  |
| CA 41C          | 20M           | 41490   | 1  | 99        | 5M            | 41373   | 1  | 0         | 17.5    | 14.02                 |  |
| CA 41C          | 20M           | 39750   | 1  | 99        | 20M           | 39948   | 1  | 0         | 17.5    | 16.16                 |  |
| CA 41C          | 20M           | 39750   | 1  | 99        | 15M           | 39921   | 1  | 0         | 17.5    | 16.2                  |  |
| CA 41C          | 20M           | 39750   | 1  | 99        | 10M           | 39894   | 1  | 0         | 17.5    | 16.07                 |  |
| CA 41C          | 20M           | 39750   | 1  | 99        | 5M            | 39867   | 1  | 0         | 17.5    | 16.06                 |  |
| CA 41C          | 15M           | 41515   | 1  | 74        | 15M           | 41365   | 1  | 0         | 17.5    | 14.19                 |  |
| CA 41C          | 15M           | 41515   | 1  | 74        | 10M           | 41395   | 1  | 0         | 17.5    | 14.09                 |  |
| CA 41C          | 15M           | 39725   | 1  | 74        | 10M           | 39845   | 1  | 0         | 17.5    | 16.29                 |  |
| CA 41C          | 20M           | 41490   | 1  | 0         | 20M           | 41292   | 1  | 99        | 17.5    | 16.23                 |  |
| CA 41C          | 20M           | 41490   | 1  | 0         | 15M           | 41319   | 1  | 74        | 17.5    | 16.31                 |  |
| CA 41C          | 20M           | 41490   | 1  | 0         | 10M           | 41346   | 1  | 49        | 17.5    | 16.19                 |  |
| CA 41C          | 20M           | 41490   | 1  | 0         | 5M            | 41373   | 1  | 24        | 17.5    | 16.16                 |  |
| CA 41C          | 20M           | 39750   | 1  | 0         | 20M           | 39948   | 1  | 99        | 17.5    | 13.65                 |  |
| CA 41C          | 20M           | 39750   | 1  | 0         | 15M           | 39921   | 1  | 74        | 17.5    | 13.86                 |  |
| CA 41C          | 20M           | 39750   | 1  | 0         | 10M           | 39894   | 1  | 49        | 17.5    | 13.83                 |  |
| CA 41C          | 20M           | 39750   | 1  | 0         | 5M            | 39867   | 1  | 24        | 17.5    | 13.98                 |  |
| CA 41C          | 15M           | 41515   | 1  | 0         | 15M           | 41365   | 1  | 74        | 17.5    | 16.38                 |  |
| CA 41C          | 15M           | 41515   | 1  | 0         | 10M           | 41395   | 1  | 49        | 17.5    | 16.26                 |  |
| CA 41C          | 15M           | 39725   | 1  | 0         | 10M           | 39845   | 1  | 49        | 17.5    | 14.02                 |  |

| UL LTE CA Class | DSI4          |         |    |           |               |         |    |           |         |                       |
|-----------------|---------------|---------|----|-----------|---------------|---------|----|-----------|---------|-----------------------|
|                 | PCC           |         |    |           | SCC           |         |    |           | Power   |                       |
|                 | PCC Bandwidth | channel | RB | RB OFFSET | SCC Bandwidth | channel | RB | RB OFFSET | tune up | conducted power (dBm) |
| CA 41C          | 20M           | 41490   | 1  | 99        | 20M           | 41292   | 1  | 0         | 24      | 13.86                 |
| CA 41C          | 20M           | 41490   | 1  | 99        | 15M           | 41319   | 1  | 0         | 24      | 14.02                 |
| CA 41C          | 20M           | 41490   | 1  | 99        | 10M           | 41346   | 1  | 0         | 24      | 14.02                 |
| CA 41C          | 20M           | 41490   | 1  | 99        | 5M            | 41373   | 1  | 0         | 24      | 14.03                 |
| CA 41C          | 20M           | 39750   | 1  | 99        | 20M           | 39948   | 1  | 0         | 24      | 22.66                 |
| CA 41C          | 20M           | 39750   | 1  | 99        | 15M           | 39921   | 1  | 0         | 24      | 22.72                 |
| CA 41C          | 20M           | 39750   | 1  | 99        | 10M           | 39894   | 1  | 0         | 24      | 22.54                 |
| CA 41C          | 20M           | 39750   | 1  | 99        | 5M            | 39867   | 1  | 0         | 24      | 22.52                 |
| CA 41C          | 15M           | 41515   | 1  | 74        | 15M           | 41365   | 1  | 0         | 24      | 14.16                 |
| CA 41C          | 15M           | 41515   | 1  | 74        | 10M           | 41395   | 1  | 0         | 24      | 14.12                 |
| CA 41C          | 15M           | 39725   | 1  | 74        | 10M           | 39845   | 1  | 0         | 24      | 22.76                 |
| CA 41C          | 20M           | 41490   | 1  | 0         | 20M           | 41292   | 1  | 99        | 24      | 22.68                 |
| CA 41C          | 20M           | 41490   | 1  | 0         | 15M           | 41319   | 1  | 74        | 24      | 22.79                 |
| CA 41C          | 20M           | 41490   | 1  | 0         | 10M           | 41346   | 1  | 49        | 24      | 22.62                 |
| CA 41C          | 20M           | 41490   | 1  | 0         | 5M            | 41373   | 1  | 24        | 24      | 22.58                 |
| CA 41C          | 20M           | 39750   | 1  | 0         | 20M           | 39948   | 1  | 99        | 24      | 13.64                 |
| CA 41C          | 20M           | 39750   | 1  | 0         | 15M           | 39921   | 1  | 74        | 24      | 13.86                 |
| CA 41C          | 20M           | 39750   | 1  | 0         | 10M           | 39894   | 1  | 49        | 24      | 13.82                 |
| CA 41C          | 20M           | 39750   | 1  | 0         | 5M            | 39867   | 1  | 24        | 24      | 14                    |
| CA 41C          | 15M           | 41515   | 1  | 0         | 15M           | 41365   | 1  | 74        | 24      | 22.89                 |
| CA 41C          | 15M           | 41515   | 1  | 0         | 10M           | 41395   | 1  | 49        | 24      | 22.72                 |
| CA 41C          | 15M           | 39725   | 1  | 0         | 10M           | 39845   | 1  | 49        | 24      | 14.01                 |

| UL LTE CA Class | DS18/9/10     |         |    |           |               |         |    |           | Power   |                       |
|-----------------|---------------|---------|----|-----------|---------------|---------|----|-----------|---------|-----------------------|
|                 | PCC           |         |    |           | SCC           |         |    |           |         |                       |
|                 | PCC Bandwidth | channel | RB | RB OFFSET | SCC Bandwidth | channel | RB | RB OFFSET | tune up | conducted power (dBm) |
| CA 41C          | 20M           | 41490   | 1  | 99        | 20M           | 41292   | 1  | 0         | 22      | 13.87                 |
| CA 41C          | 20M           | 41490   | 1  | 99        | 15M           | 41319   | 1  | 0         | 22      | 14.01                 |
| CA 41C          | 20M           | 41490   | 1  | 99        | 10M           | 41346   | 1  | 0         | 22      | 14.13                 |
| CA 41C          | 20M           | 41490   | 1  | 99        | 5M            | 41373   | 1  | 0         | 22      | 14.05                 |
| CA 41C          | 20M           | 39750   | 1  | 99        | 20M           | 39948   | 1  | 0         | 22      | 20.6                  |
| CA 41C          | 20M           | 39750   | 1  | 99        | 15M           | 39921   | 1  | 0         | 22      | 20.67                 |
| CA 41C          | 20M           | 39750   | 1  | 99        | 10M           | 39894   | 1  | 0         | 22      | 20.51                 |
| CA 41C          | 20M           | 39750   | 1  | 99        | 5M            | 39867   | 1  | 0         | 22      | 20.5                  |
| CA 41C          | 15M           | 41515   | 1  | 74        | 15M           | 41365   | 1  | 0         | 22      | 14.14                 |
| CA 41C          | 15M           | 41515   | 1  | 74        | 10M           | 41395   | 1  | 0         | 22      | 14.07                 |
| CA 41C          | 15M           | 39725   | 1  | 74        | 10M           | 39845   | 1  | 0         | 22      | 20.75                 |
| CA 41C          | 20M           | 41490   | 1  | 0         | 20M           | 41292   | 1  | 99        | 22      | 20.67                 |
| CA 41C          | 20M           | 41490   | 1  | 0         | 15M           | 41319   | 1  | 74        | 22      | 20.77                 |
| CA 41C          | 20M           | 41490   | 1  | 0         | 10M           | 41346   | 1  | 49        | 22      | 20.62                 |
| CA 41C          | 20M           | 41490   | 1  | 0         | 5M            | 41373   | 1  | 24        | 22      | 20.58                 |
| CA 41C          | 20M           | 39750   | 1  | 0         | 20M           | 39948   | 1  | 99        | 22      | 13.66                 |
| CA 41C          | 20M           | 39750   | 1  | 0         | 15M           | 39921   | 1  | 74        | 22      | 13.86                 |
| CA 41C          | 20M           | 39750   | 1  | 0         | 10M           | 39894   | 1  | 49        | 22      | 13.8                  |
| CA 41C          | 20M           | 39750   | 1  | 0         | 5M            | 39867   | 1  | 24        | 22      | 13.95                 |
| CA 41C          | 15M           | 41515   | 1  | 0         | 15M           | 41365   | 1  | 74        | 22      | 20.86                 |
| CA 41C          | 15M           | 41515   | 1  | 0         | 10M           | 41395   | 1  | 49        | 22      | 20.71                 |
| CA 41C          | 15M           | 39725   | 1  | 0         | 10M           | 39845   | 1  | 49        | 22      | 14.02                 |

## 41C ANT31

| DSI2/3/4/8/9/10 |               |         |    |           |               |         |    |           |         |                       |
|-----------------|---------------|---------|----|-----------|---------------|---------|----|-----------|---------|-----------------------|
| UL LTE CA Class | PCC           |         |    |           | SCC           |         |    |           | Power   |                       |
|                 | PCC Bandwidth | channel | RB | RB OFFSET | SCC Bandwidth | channel | RB | RB OFFSET | tune up | conducted power (dBm) |
| CA 41C          | 20M           | 41490   | 1  | 99        | 20M           | 41292   | 1  | 0         | 24      | 14.1                  |
| CA 41C          | 20M           | 41490   | 1  | 99        | 15M           | 41319   | 1  | 0         | 24      | 14.28                 |
| CA 41C          | 20M           | 41490   | 1  | 99        | 10M           | 41346   | 1  | 0         | 24      | 14.23                 |
| CA 41C          | 20M           | 41490   | 1  | 99        | 5M            | 41373   | 1  | 0         | 24      | 14.27                 |
| CA 41C          | 20M           | 39750   | 1  | 99        | 20M           | 39948   | 1  | 0         | 24      | 23.19                 |
| CA 41C          | 20M           | 39750   | 1  | 99        | 15M           | 39921   | 1  | 0         | 24      | 23.24                 |
| CA 41C          | 20M           | 39750   | 1  | 99        | 10M           | 39894   | 1  | 0         | 24      | 23.06                 |
| CA 41C          | 20M           | 39750   | 1  | 99        | 5M            | 39867   | 1  | 0         | 24      | 23.05                 |
| CA 41C          | 15M           | 41515   | 1  | 74        | 15M           | 41365   | 1  | 0         | 24      | 14.41                 |
| CA 41C          | 15M           | 41515   | 1  | 74        | 10M           | 41395   | 1  | 0         | 24      | 14.32                 |
| CA 41C          | 15M           | 39725   | 1  | 74        | 10M           | 39845   | 1  | 0         | 24      | 23.13                 |
| CA 41C          | 20M           | 41490   | 1  | 0         | 20M           | 41292   | 1  | 99        | 24      | 23.06                 |
| CA 41C          | 20M           | 41490   | 1  | 0         | 15M           | 41319   | 1  | 74        | 24      | 23.17                 |
| CA 41C          | 20M           | 41490   | 1  | 0         | 10M           | 41346   | 1  | 49        | 24      | 23                    |
| CA 41C          | 20M           | 41490   | 1  | 0         | 5M            | 41373   | 1  | 24        | 24      | 22.96                 |
| CA 41C          | 20M           | 39750   | 1  | 0         | 20M           | 39948   | 1  | 99        | 24      | 13.89                 |
| CA 41C          | 20M           | 39750   | 1  | 0         | 15M           | 39921   | 1  | 74        | 24      | 14.12                 |
| CA 41C          | 20M           | 39750   | 1  | 0         | 10M           | 39894   | 1  | 49        | 24      | 14.09                 |
| CA 41C          | 20M           | 39750   | 1  | 0         | 5M            | 39867   | 1  | 24        | 24      | 14.24                 |
| CA 41C          | 15M           | 41515   | 1  | 0         | 15M           | 41365   | 1  | 74        | 24      | 23.27                 |
| CA 41C          | 15M           | 41515   | 1  | 0         | 10M           | 41395   | 1  | 49        | 24      | 23.1                  |
| CA 41C          | 15M           | 39725   | 1  | 0         | 10M           | 39845   | 1  | 49        | 24      | 14.28                 |

## LTE Carrier Aggregation Conducted Power (Downlink)

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. SAR test is not required since maximum output power when downlink carrier aggregation active is not more than ¼ dB higher than the maximum output power measured when downlink carrier aggregation inactive.

### Maximum Output Powers

#### ANT13 DSI2/3

| DL LTE CA Class | PCC           |            |            |       |              | SCC           |            | Power   |                       |
|-----------------|---------------|------------|------------|-------|--------------|---------------|------------|---------|-----------------------|
|                 | PCC Bandwidth | UL channel | DL channel | UL RB | UL RB OFFSET | SCC Bandwidth | DL channel | tune up | conducted power (dBm) |
| CA 7C           | 15M           | 21375      | 3350       | 36    | 0            | 15M           | 3225       | 16      | 15.05                 |
| CA 38C          | 20M           | 37850      | 37850      | 1     | 50           | 20M           | 38048      | 19      | 18.22                 |
| CA 41C          | 15M           | 41515      | 41515      | 1     | 37           | 15M           | 41365      | 17.5    | 16.62                 |
| CA 66C          | 20M           | 132072     | 66536      | 50    | 25           | 20M           | 33734      | 14.5    | 13.48                 |
| CA 4A-4A        | 20M           | 20050      | 2050       | 1     | 0            | 20M           | 2300       | 16.5    | 15.54                 |
| CA 7A-7A        | 10M           | 21400      | 3400       | 25    | 0            | 20M           | 2850       | 16      | 15.12                 |
| CA 41A-41A      | 15M           | 39725      | 39725      | 1     | 74           | 15M           | 41515      | 17.5    | 16.57                 |
| CA 66A-66A      | 20M           | 132072     | 66536      | 50    | 25           | 20M           | 67236      | 14.5    | 13.45                 |
| CA 2A-4A        | 5M            | 19175      | 1175       | 1     | 24           | 20M           | 2175       | 15.5    | 14.54                 |
| CA 2A-5A        | 5M            | 19175      | 1175       | 1     | 24           | 10M           | 2525       | 15.5    | 14.57                 |
| CA 2A-7A        | 5M            | 19175      | 1175       | 1     | 24           | 20M           | 3100       | 15.5    | 14.6                  |
| CA 2A-28A       | 5M            | 19175      | 1175       | 1     | 24           | 20M           | 9460       | 15.5    | 14.59                 |
| CA 2A-66A       | 5M            | 19175      | 1175       | 1     | 24           | 20M           | 66786      | 15.5    | 14.6                  |
| CA 4A-2A        | 5M            | 19975      | 1975       | 1     | 12           | 20M           | 900        | 16.5    | 15.58                 |
| CA 4A-5A        | 5M            | 19975      | 1975       | 1     | 12           | 10M           | 2525       | 16.5    | 15.58                 |
| CA 4A-7A        | 5M            | 19975      | 1975       | 1     | 12           | 20M           | 3100       | 16.5    | 15.58                 |
| CA 4A-28A       | 5M            | 19975      | 1975       | 1     | 12           | 20M           | 9460       | 16.5    | 15.6                  |
| CA 5A-1A        | 10M           | 20450      | 2450       | 25    | 0            | 20M           | 300        | 20      | 18.98                 |
| CA 5A-2A        | 10M           | 20450      | 2450       | 25    | 0            | 20M           | 900        | 20      | 18.91                 |
| CA 5A-3A        | 10M           | 20450      | 2450       | 25    | 0            | 20M           | 1575       | 20      | 18.92                 |
| CA 5A-7A        | 10M           | 20450      | 2450       | 25    | 0            | 20M           | 3100       | 20      | 18.92                 |
| CA 5A-41A       | 10M           | 20450      | 2450       | 25    | 0            | 20M           | 40620      | 20      | 18.91                 |
| CA 7A-1A        | 10M           | 21100      | 3100       | 1     | 24           | 20M           | 300        | 16      | 15.11                 |
| CA 7A-3A        | 10M           | 21100      | 3100       | 1     | 24           | 20M           | 1575       | 16      | 15.08                 |
| CA 7A-5A        | 10M           | 21100      | 3100       | 1     | 24           | 10M           | 2525       | 16      | 15.09                 |
| CA 7A-8A        | 10M           | 21100      | 3100       | 1     | 24           | 10M           | 3625       | 16      | 15.08                 |
| CA 7A-28A       | 10M           | 21100      | 3100       | 1     | 24           | 20M           | 9460       | 16      | 15.08                 |
| CA 38A-1A       | 20M           | 37850      | 37850      | 1     | 50           | 20M           | 300        | 19      | 18.22                 |
| CA 38A-3A       | 20M           | 37850      | 37850      | 1     | 50           | 20M           | 1575       | 19      | 18.28                 |
| CA 38A-8A       | 20M           | 37850      | 37850      | 1     | 50           | 10M           | 3625       | 19      | 18.29                 |
| CA 38A-28A      | 20M           | 37850      | 37850      | 1     | 50           | 20M           | 9460       | 19      | 18.24                 |
| CA 38A-41A      | 20M           | 37850      | 37850      | 1     | 50           | 20M           | 40620      | 19      | 18.22                 |
| CA 41A-1A       | 5M            | 40148      | 40148      | 1     | 12           | 20M           | 300        | 17.5    | 16.96                 |
| CA 41A-3A       | 5M            | 40148      | 40148      | 1     | 12           | 20M           | 1575       | 17.5    | 16.96                 |
| CA 41A-5A       | 5M            | 40148      | 40148      | 1     | 12           | 10M           | 2525       | 17.5    | 16.96                 |
| CA 41A-8A       | 5M            | 40148      | 40148      | 1     | 12           | 10M           | 3625       | 17.5    | 17                    |
| CA 41A-28A      | 5M            | 40148      | 40148      | 1     | 12           | 20M           | 9460       | 17.5    | 16.96                 |
| CA 66A-2A       | 20M           | 132072     | 66536      | 50    | 25           | 20M           | 900        | 14.5    | 13.46                 |
| CA 66A-28A      | 20M           | 132072     | 66536      | 50    | 25           | 20M           | 9460       | 14.5    | 13.5                  |

## ANT13 DSI4

| DL LTE CA Class | PCC           |            |            |       |              | SCC           |            | Power   |                       |
|-----------------|---------------|------------|------------|-------|--------------|---------------|------------|---------|-----------------------|
|                 | PCC Bandwidth | UL channel | DL channel | UL RB | UL RB OFFSET | SCC Bandwidth | DL channel | tune up | conducted power (dBm) |
| CA 7C           | 15M           | 21375      | 3350       | 1     | 37           | 15M           | 3225       | 23.5    | 22.74                 |
| CA 38C          | 20M           | 37850      | 37850      | 1     | 50           | 20M           | 38048      | 24      | 23.21                 |
| CA 41C          | 15M           | 41515      | 41515      | 1     | 37           | 15M           | 41365      | 24      | 22.95                 |
| CA 66C          | 20M           | 132072     | 66536      | 1     | 50           | 20M           | 33734      | 24      | 22.91                 |
| CA 4A-4A        | 20M           | 20050      | 2050       | 1     | 50           | 20M           | 2300       | 24      | 22.96                 |
| CA 7A-7A        | 10M           | 21400      | 3400       | 1     | 0            | 20M           | 2850       | 23.5    | 22.78                 |
| CA 41A-41A      | 15M           | 39725      | 39725      | 1     | 74           | 15M           | 41515      | 24      | 23.03                 |
| CA 66A-66A      | 20M           | 132072     | 66536      | 1     | 50           | 20M           | 67236      | 24      | 22.94                 |
| CA 2A-4A        | 10M           | 18900      | 900        | 1     | 24           | 20M           | 2175       | 24      | 23.08                 |
| CA 2A-5A        | 10M           | 18900      | 900        | 1     | 24           | 10M           | 2525       | 24      | 23.08                 |
| CA 2A-7A        | 10M           | 18900      | 900        | 1     | 24           | 20M           | 3100       | 24      | 23.06                 |
| CA 2A-28A       | 10M           | 18900      | 900        | 1     | 24           | 20M           | 9460       | 24      | 23.03                 |
| CA 2A-66A       | 10M           | 18900      | 900        | 1     | 24           | 20M           | 66786      | 24      | 23.03                 |
| CA 4A-2A        | 20M           | 20050      | 2050       | 1     | 50           | 20M           | 900        | 24      | 23.14                 |
| CA 4A-5A        | 20M           | 20050      | 2050       | 1     | 50           | 10M           | 2525       | 24      | 23.07                 |
| CA 4A-7A        | 20M           | 20050      | 2050       | 1     | 50           | 20M           | 3100       | 24      | 23.07                 |
| CA 4A-28A       | 20M           | 20050      | 2050       | 1     | 50           | 20M           | 9460       | 24      | 23.07                 |
| CA 5A-1A        | 10M           | 20450      | 2450       | 1     | 24           | 20M           | 300        | 24.5    | 23.38                 |
| CA 5A-2A        | 10M           | 20450      | 2450       | 1     | 24           | 20M           | 900        | 24.5    | 23.34                 |
| CA 5A-3A        | 10M           | 20450      | 2450       | 1     | 24           | 20M           | 1575       | 24.5    | 23.31                 |
| CA 5A-7A        | 10M           | 20450      | 2450       | 1     | 24           | 20M           | 3100       | 24.5    | 23.38                 |
| CA 5A-41A       | 10M           | 20450      | 2450       | 1     | 24           | 20M           | 40620      | 24.5    | 23.38                 |
| CA 7A-1A        | 5M            | 21100      | 3100       | 1     | 24           | 20M           | 300        | 23.5    | 22.75                 |
| CA 7A-3A        | 5M            | 21100      | 3100       | 1     | 24           | 20M           | 1575       | 23.5    | 22.72                 |
| CA 7A-5A        | 5M            | 21100      | 3100       | 1     | 24           | 10M           | 2525       | 23.5    | 22.72                 |
| CA 7A-8A        | 5M            | 21100      | 3100       | 1     | 24           | 10M           | 3625       | 23.5    | 22.75                 |
| CA 7A-28A       | 5M            | 21100      | 3100       | 1     | 24           | 20M           | 9460       | 23.5    | 22.79                 |
| CA 38A-1A       | 5M            | 38000      | 38000      | 1     | 12           | 20M           | 300        | 24      | 23.27                 |
| CA 38A-3A       | 5M            | 38000      | 38000      | 1     | 12           | 20M           | 1575       | 24      | 23.22                 |
| CA 38A-8A       | 5M            | 38000      | 38000      | 1     | 12           | 10M           | 3625       | 24      | 23.29                 |
| CA 38A-28A      | 5M            | 38000      | 38000      | 1     | 12           | 20M           | 9460       | 24      | 23.31                 |
| CA 38A-41A      | 5M            | 38000      | 38000      | 1     | 12           | 20M           | 40620      | 24      | 23.31                 |
| CA 41A-1A       | 5M            | 40148      | 40148      | 1     | 12           | 20M           | 300        | 24      | 23.41                 |
| CA 41A-3A       | 5M            | 40148      | 40148      | 1     | 12           | 20M           | 1575       | 24      | 23.41                 |
| CA 41A-5A       | 5M            | 40148      | 40148      | 1     | 12           | 10M           | 2525       | 24      | 23.44                 |
| CA 41A-8A       | 5M            | 40148      | 40148      | 1     | 12           | 10M           | 3625       | 24      | 23.48                 |
| CA 41A-28A      | 5M            | 40148      | 40148      | 1     | 12           | 20M           | 9460       | 24      | 23.48                 |
| CA 66A-2A       | 20M           | 132072     | 66536      | 1     | 50           | 20M           | 900        | 24      | 22.96                 |
| CA 66A-28A      | 20M           | 132072     | 66536      | 1     | 50           | 20M           | 9460       | 24      | 22.94                 |

# ANT13 DSI8/9/10

| DL LTE CA Class | PCC           |            |            |       |              | SCC           |            | Power   |                       |
|-----------------|---------------|------------|------------|-------|--------------|---------------|------------|---------|-----------------------|
|                 | PCC Bandwidth | UL channel | DL channel | UL RB | UL RB OFFSET | SCC Bandwidth | DL channel | tune up | conducted power (dBm) |
| CA 7C           | 15M           | 21375      | 3350       | 36    | 0            | 15M           | 3225       | 18.5    | 17.86                 |
| CA 38C          | 20M           | 37850      | 37850      | 1     | 50           | 20M           | 38048      | 22.5    | 21.56                 |
| CA 41C          | 15M           | 41515      | 41515      | 1     | 37           | 15M           | 41365      | 22      | 21                    |
| CA 66C          | 20M           | 132072     | 66536      | 50    | 50           | 20M           | 33734      | 19      | 18.01                 |
| CA 4A-4A        | 20M           | 20050      | 2050       | 50    | 0            | 20M           | 2300       | 18.5    | 17.58                 |
| CA 7A-7A        | 10M           | 21400      | 3400       | 25    | 0            | 20M           | 2850       | 18.5    | 17.88                 |
| CA 41A-41A      | 15M           | 39725      | 39725      | 1     | 74           | 15M           | 41515      | 22      | 21.09                 |
| CA 66A-66A      | 20M           | 132072     | 66536      | 50    | 50           | 20M           | 67236      | 19      | 17.99                 |
| CA 2A-4A        | 5M            | 18900      | 900        | 12    | 0            | 20M           | 2175       | 18.5    | 17.52                 |
| CA 2A-5A        | 5M            | 18900      | 900        | 12    | 0            | 10M           | 2525       | 18.5    | 17.5                  |
| CA 2A-7A        | 5M            | 18900      | 900        | 12    | 0            | 20M           | 3100       | 18.5    | 17.54                 |
| CA 2A-28A       | 5M            | 18900      | 900        | 12    | 0            | 20M           | 9460       | 18.5    | 17.52                 |
| CA 2A-66A       | 5M            | 18900      | 900        | 12    | 0            | 20M           | 66786      | 18.5    | 17.52                 |
| CA 4A-2A        | 20M           | 20050      | 2050       | 50    | 0            | 20M           | 900        | 18.5    | 17.62                 |
| CA 4A-5A        | 20M           | 20050      | 2050       | 50    | 0            | 10M           | 2525       | 18.5    | 17.62                 |
| CA 4A-7A        | 20M           | 20050      | 2050       | 50    | 0            | 20M           | 3100       | 18.5    | 17.56                 |
| CA 4A-28A       | 20M           | 20050      | 2050       | 50    | 0            | 20M           | 9460       | 18.5    | 17.6                  |
| CA 7A-1A        | 10M           | 21100      | 3100       | 1     | 24           | 20M           | 300        | 18.5    | 17.87                 |
| CA 7A-3A        | 10M           | 21100      | 3100       | 1     | 24           | 20M           | 1575       | 18.5    | 17.94                 |
| CA 7A-5A        | 10M           | 21100      | 3100       | 1     | 24           | 10M           | 2525       | 18.5    | 17.91                 |
| CA 7A-8A        | 10M           | 21100      | 3100       | 1     | 24           | 10M           | 3625       | 18.5    | 17.94                 |
| CA 7A-28A       | 10M           | 21100      | 3100       | 1     | 24           | 20M           | 9460       | 18.5    | 17.89                 |
| CA 38A-1A       | 5M            | 38000      | 38000      | 1     | 12           | 20M           | 300        | 22.5    | 21.63                 |
| CA 38A-3A       | 5M            | 38000      | 38000      | 1     | 12           | 20M           | 1575       | 22.5    | 21.67                 |
| CA 38A-8A       | 5M            | 38000      | 38000      | 1     | 12           | 10M           | 3625       | 22.5    | 21.67                 |
| CA 38A-28A      | 5M            | 38000      | 38000      | 1     | 12           | 20M           | 9460       | 22.5    | 21.63                 |
| CA 38A-41A      | 5M            | 38000      | 38000      | 1     | 12           | 20M           | 40620      | 22.5    | 21.67                 |
| CA 41A-1A       | 5M            | 40148      | 40148      | 1     | 12           | 20M           | 300        | 22      | 21.44                 |
| CA 41A-3A       | 5M            | 40148      | 40148      | 1     | 12           | 20M           | 1575       | 22      | 21.41                 |
| CA 41A-5A       | 5M            | 40148      | 40148      | 1     | 12           | 10M           | 2525       | 22      | 21.46                 |
| CA 41A-8A       | 5M            | 40148      | 40148      | 1     | 12           | 10M           | 3625       | 22      | 21.46                 |
| CA 41A-28A      | 5M            | 40148      | 40148      | 1     | 12           | 20M           | 9460       | 22      | 21.46                 |
| CA 66A-2A       | 20M           | 132072     | 66536      | 50    | 50           | 20M           | 900        | 19      | 17.99                 |
| CA 66A-28A      | 20M           | 132072     | 66536      | 50    | 50           | 20M           | 9460       | 19      | 18.06                 |

## ANT31/41 DSI2

| DL LTE CA Class | PCC           |            |            |       |              | SCC           |            | Power   |                       |
|-----------------|---------------|------------|------------|-------|--------------|---------------|------------|---------|-----------------------|
|                 | PCC Bandwidth | UL channel | DL channel | UL RB | UL RB OFFSET | SCC Bandwidth | DL channel | tune up | conducted power (dBm) |
| CA 7C           | 15M           | 21375      | 3350       | 1     | 37           | 15M           | 3225       | 24      | 23.3                  |
| CA 38C          | 20M           | 37850      | 37850      | 1     | 50           | 20M           | 38048      | 24      | 23.16                 |
| CA 41C          | 15M           | 41515      | 41515      | 1     | 37           | 15M           | 41365      | 24      | 23.29                 |
| CA 66C          | 20M           | 132072     | 66536      | 1     | 50           | 20M           | 33734      | 24      | 23.15                 |
| CA 4A-4A        | 20M           | 20050      | 2050       | 1     | 0            | 20M           | 2300       | 24.8    | 23.72                 |
| CA 7A-7A        | 10M           | 21400      | 3400       | 1     | 24           | 20M           | 2850       | 24      | 23.41                 |
| CA 41A-41A      | 15M           | 39725      | 39725      | 1     | 37           | 15M           | 41515      | 24      | 23.19                 |
| CA 66A-66A      | 20M           | 132072     | 66536      | 1     | 50           | 20M           | 67236      | 24.5    | 23.15                 |
| CA 2A-4A        | 20M           | 18900      | 900        | 1     | 50           | 20M           | 2175       | 24.8    | 23.59                 |
| CA 2A-5A        | 20M           | 18900      | 900        | 1     | 50           | 10M           | 2525       | 24.8    | 23.52                 |
| CA 2A-7A        | 20M           | 18900      | 900        | 1     | 50           | 20M           | 3100       | 24.8    | 23.59                 |
| CA 2A-28A       | 20M           | 18900      | 900        | 1     | 50           | 20M           | 9460       | 24.8    | 23.61                 |
| CA 2A-66A       | 20M           | 18900      | 900        | 1     | 50           | 20M           | 66786      | 24.8    | 23.57                 |
| CA 4A-2A        | 5M            | 19975      | 1975       | 1     | 12           | 20M           | 900        | 24.8    | 23.8                  |
| CA 4A-5A        | 5M            | 19975      | 1975       | 1     | 12           | 10M           | 2525       | 24.8    | 23.8                  |
| CA 4A-7A        | 5M            | 19975      | 1975       | 1     | 12           | 20M           | 3100       | 24.8    | 23.84                 |
| CA 4A-28A       | 5M            | 19975      | 1975       | 1     | 12           | 20M           | 9460       | 24.8    | 23.8                  |
| CA 5A-1A        | 10M           | 20450      | 2450       | 1     | 24           | 20M           | 300        | 24.5    | 23.28                 |
| CA 5A-2A        | 10M           | 20450      | 2450       | 1     | 24           | 20M           | 900        | 24.5    | 23.32                 |
| CA 5A-3A        | 10M           | 20450      | 2450       | 1     | 24           | 20M           | 1575       | 24.5    | 23.25                 |
| CA 5A-7A        | 10M           | 20450      | 2450       | 1     | 24           | 20M           | 3100       | 24.5    | 23.23                 |
| CA 5A-41A       | 10M           | 20450      | 2450       | 1     | 24           | 20M           | 40620      | 24.5    | 23.25                 |
| CA 7A-1A        | 5M            | 21425      | 3425       | 1     | 12           | 20M           | 300        | 24      | 23.4                  |
| CA 7A-3A        | 5M            | 21425      | 3425       | 1     | 12           | 20M           | 1575       | 24      | 23.35                 |
| CA 7A-5A        | 5M            | 21425      | 3425       | 1     | 12           | 10M           | 2525       | 24      | 23.35                 |
| CA 7A-8A        | 5M            | 21425      | 3425       | 1     | 12           | 10M           | 3625       | 24      | 23.35                 |
| CA 7A-28A       | 5M            | 21425      | 3425       | 1     | 12           | 20M           | 9460       | 24      | 23.35                 |
| CA 38A-1A       | 10M           | 38000      | 38000      | 1     | 0            | 20M           | 300        | 24      | 23.37                 |
| CA 38A-3A       | 10M           | 38000      | 38000      | 1     | 0            | 20M           | 1575       | 24      | 23.3                  |
| CA 38A-8A       | 10M           | 38000      | 38000      | 1     | 0            | 10M           | 3625       | 24      | 23.35                 |
| CA 38A-28A      | 10M           | 38000      | 38000      | 1     | 0            | 20M           | 9460       | 24      | 23.3                  |
| CA 38A-41A      | 10M           | 38000      | 38000      | 1     | 0            | 20M           | 40620      | 24      | 23.3                  |
| CA 41A-1A       | 5M            | 40620      | 40620      | 1     | 12           | 20M           | 300        | 24      | 23.39                 |
| CA 41A-3A       | 5M            | 40620      | 40620      | 1     | 12           | 20M           | 1575       | 24      | 23.48                 |
| CA 41A-5A       | 5M            | 40620      | 40620      | 1     | 12           | 10M           | 2525       | 24      | 23.48                 |
| CA 41A-8A       | 5M            | 40620      | 40620      | 1     | 12           | 10M           | 3625       | 24      | 23.44                 |
| CA 41A-28A      | 5M            | 40620      | 40620      | 1     | 12           | 20M           | 9460       | 24      | 23.39                 |
| CA 66A-2A       | 5M            | 131997     | 66461      | 1     | 12           | 20M           | 900        | 24.5    | 23.14                 |
| CA 66A-28A      | 5M            | 131997     | 66461      | 1     | 12           | 20M           | 9460       | 24.5    | 23.19                 |

## ANT31/41 DSI4

| DL LTE CA Class | PCC           |            |            |       |              | SCC           |            | Power   |                       |
|-----------------|---------------|------------|------------|-------|--------------|---------------|------------|---------|-----------------------|
|                 | PCC Bandwidth | UL channel | DL channel | UL RB | UL RB OFFSET | SCC Bandwidth | DL channel | tune up | conducted power (dBm) |
| CA 7C           | 15M           | 21375      | 3350       | 1     | 37           | 15M           | 3225       | 22      | 21.35                 |
| CA 66C          | 20M           | 132072     | 66536      | 50    | 50           | 20M           | 33734      | 21.8    | 20.81                 |
| CA 4A-4A        | 20M           | 20050      | 2050       | 1     | 50           | 20M           | 2300       | 21.8    | 20.81                 |
| CA 7A-7A        | 10M           | 21400      | 3400       | 1     | 24           | 20M           | 2850       | 22      | 21.41                 |
| CA 66A-66A      | 20M           | 132072     | 66536      | 1     | 50           | 20M           | 67236      | 21.8    | 20.84                 |
| CA 2A-4A        | 5M            | 18900      | 900        | 1     | 12           | 20M           | 2175       | 23.3    | 22.06                 |
| CA 2A-5A        | 5M            | 18900      | 900        | 1     | 12           | 10M           | 2525       | 23.3    | 22.06                 |
| CA 2A-7A        | 5M            | 18900      | 900        | 1     | 12           | 20M           | 3100       | 23.3    | 22.06                 |
| CA 2A-28A       | 5M            | 18900      | 900        | 1     | 12           | 20M           | 9460       | 23.3    | 22.04                 |
| CA 2A-66A       | 5M            | 18900      | 900        | 1     | 12           | 20M           | 66786      | 23.3    | 22.13                 |
| CA 4A-2A        | 10M           | 20000      | 2000       | 1     | 49           | 20M           | 900        | 21.8    | 20.91                 |
| CA 4A-5A        | 10M           | 20000      | 2000       | 1     | 49           | 10M           | 2525       | 21.8    | 20.85                 |
| CA 4A-7A        | 10M           | 20000      | 2000       | 1     | 49           | 20M           | 3100       | 21.8    | 20.87                 |
| CA 4A-28A       | 10M           | 20000      | 2000       | 1     | 49           | 20M           | 9460       | 21.8    | 20.89                 |
| CA 7A-1A        | 5M            | 21425      | 3425       | 1     | 12           | 20M           | 300        | 22      | 21.36                 |
| CA 7A-3A        | 5M            | 21425      | 3425       | 1     | 12           | 20M           | 1575       | 22      | 21.38                 |
| CA 7A-5A        | 5M            | 21425      | 3425       | 1     | 12           | 10M           | 2525       | 22      | 21.38                 |
| CA 7A-8A        | 5M            | 21425      | 3425       | 1     | 12           | 10M           | 3625       | 22      | 21.36                 |
| CA 7A-28A       | 5M            | 21425      | 3425       | 1     | 12           | 20M           | 9460       | 22      | 21.38                 |
| CA 66A-2A       | 20M           | 132072     | 66536      | 50    | 50           | 20M           | 900        | 21.8    | 20.9                  |
| CA 66A-28A      | 20M           | 132072     | 66536      | 50    | 50           | 20M           | 9460       | 21.8    | 20.86                 |

## ANT31/41 DSI8/9/10

| DL LTE CA Class | PCC           |            |            |       |              | SCC           |            | Power   |                       |
|-----------------|---------------|------------|------------|-------|--------------|---------------|------------|---------|-----------------------|
|                 | PCC Bandwidth | UL channel | DL channel | UL RB | UL RB OFFSET | SCC Bandwidth | DL channel | tune up | conducted power (dBm) |
| CA 7C           | 15M           | 21375      | 3350       | 1     | 37           | 15M           | 3225       | 21      | 19.97                 |
| CA 66C          | 20M           | 132072     | 66536      | 50    | 50           | 20M           | 33734      | 20.8    | 19.73                 |
| CA 4A-4A        | 20M           | 20050      | 2050       | 1     | 0            | 20M           | 2300       | 20.5    | 19.73                 |
| CA 7A-7A        | 10M           | 21400      | 3400       | 25    | 0            | 20M           | 2850       | 21      | 20.09                 |
| CA 66A-66A      | 20M           | 132072     | 66536      | 50    | 50           | 20M           | 67236      | 20.8    | 19.77                 |
| CA 2A-4A        | 20M           | 18900      | 900        | 50    | 0            | 20M           | 2175       | 21.5    | 20.61                 |
| CA 2A-5A        | 20M           | 18900      | 900        | 50    | 0            | 10M           | 2525       | 21.5    | 20.67                 |
| CA 2A-7A        | 20M           | 18900      | 900        | 50    | 0            | 20M           | 3100       | 21.5    | 20.65                 |
| CA 2A-28A       | 20M           | 18900      | 900        | 50    | 0            | 20M           | 9460       | 21.5    | 20.65                 |
| CA 2A-66A       | 20M           | 18900      | 900        | 50    | 0            | 20M           | 66786      | 21.5    | 20.61                 |
| CA 4A-2A        | 10M           | 20000      | 2000       | 25    | 25           | 20M           | 900        | 20.5    | 19.8                  |
| CA 4A-5A        | 10M           | 20000      | 2000       | 25    | 25           | 10M           | 2525       | 20.5    | 19.78                 |
| CA 4A-7A        | 10M           | 20000      | 2000       | 25    | 25           | 20M           | 3100       | 20.5    | 19.86                 |
| CA 4A-28A       | 10M           | 20000      | 2000       | 25    | 25           | 20M           | 9460       | 20.5    | 19.78                 |
| CA 7A-1A        | 20M           | 21350      | 3350       | 50    | 25           | 20M           | 300        | 21      | 20.16                 |
| CA 7A-3A        | 20M           | 21350      | 3350       | 50    | 25           | 20M           | 1575       | 21      | 20.12                 |
| CA 7A-5A        | 20M           | 21350      | 3350       | 50    | 25           | 10M           | 2525       | 21      | 20.14                 |
| CA 7A-8A        | 20M           | 21350      | 3350       | 50    | 25           | 10M           | 3625       | 21      | 20.1                  |
| CA 7A-28A       | 20M           | 21350      | 3350       | 50    | 25           | 20M           | 9460       | 21      | 20.08                 |
| CA 66A-2A       | 20M           | 132072     | 66536      | 50    | 50           | 20M           | 900        | 20.8    | 19.77                 |
| CA 66A-28A      | 20M           | 132072     | 66536      | 50    | 50           | 20M           | 9460       | 20.8    | 19.75                 |

## LTE Carrier Aggregation 4x4 MIMO RF Conduction Powers

This device supports downlink 4x4 MIMO operations for some LTE bands.

Per May 2017 TCB Workshop Notes, SAR for 4x4 DL MIMO was not needed since the maximum average output power in 4x4 DL MIMO mode was not more than 0.25 dB higher than the maximum output power with 4x4 DL MIMO inactive. Additionally, SAR for 4x4 MIMO Downlink Carrier Aggregation was not needed since the maximum average output power in 4x4 MIMO Downlink Carrier Aggregation mode was not more than 0.25 dB higher than the maximum output power with 4x4 MIMO Downlink and downlink carrier aggregation inactive.

### Maximum Output Powers

## ANT13 DSI2/3

| DL LTE CA Class    | PCC           |            |            |       |              | DSI2/3        |            |            |       |              | SCC           |            |            |       |              | Power   |                       |
|--------------------|---------------|------------|------------|-------|--------------|---------------|------------|------------|-------|--------------|---------------|------------|------------|-------|--------------|---------|-----------------------|
|                    | PCC Bandwidth | UL channel | DL channel | UL RB | UL RB OFFSET | PCC Bandwidth | UL channel | DL channel | UL RB | UL RB OFFSET | SCC Bandwidth | UL channel | DL channel | UL RB | UL RB OFFSET | tune up | conducted power (dBm) |
| CA_7C-7C           | 15M           | 21375      | 3350       | 36    | 0            | 15M           | 3225       | 36         | 0     | 0            | 15M           | 3350       | 15M        | 3225  | 16           | 15.02   |                       |
| CA_38C-38C         | 20M           | 37850      | 37850      | 1     | 50           | 20M           | 38048      | 1          | 50    | 0            | 20M           | 37850      | 20M        | 38048 | 19           | 18.24   |                       |
| CA_41C-41C         | 15M           | 41515      | 41515      | 1     | 37           | 15M           | 41365      | 1          | 37    | 0            | 15M           | 41515      | 15M        | 41365 | 17.5         | 16.6    |                       |
| CA_66C-66C         | 20M           | 132072     | 66536      | 50    | 25           | 20M           | 33734      | 50         | 25    | 0            | 20M           | 66536      | 20M        | 33734 | 14.5         | 13.47   |                       |
| CA_4A+4A-4A+4A     | 20M           | 20050      | 2050       | 1     | 0            | 20M           | 2300       | 1          | 0     | 0            | 20M           | 2050       | 20M        | 2300  | 16.5         | 15.56   |                       |
| CA_7A+7A-7A+7A     | 10M           | 21400      | 3400       | 25    | 0            | 20M           | 2850       | 25         | 0     | 0            | 10M           | 3400       | 20M        | 2850  | 16           | 15.13   |                       |
| CA_41A+41A-41A+41A | 15M           | 39725      | 39725      | 1     | 74           | 15M           | 41515      | 1          | 74    | 0            | 15M           | 39725      | 15M        | 41515 | 17.5         | 16.66   |                       |
| CA_66A+66A-66A+66A | 20M           | 132072     | 66536      | 50    | 25           | 20M           | 67236      | 50         | 25    | 0            | 20M           | 66536      | 20M        | 67236 | 14.5         | 13.46   |                       |
| CA_2A+2A-4A+4A     | 5M            | 19175      | 1175       | 1     | 24           | 20M           | 700        | 1          | 0     | 0            | 20M           | 2050       | 20M        | 2300  | 15.5         | 14.54   |                       |
| CA_2A+2A-5A+5A     | 5M            | 19175      | 1175       | 1     | 24           | 20M           | 700        | 1          | 0     | 0            | 10M           | 2450       | 10M        | 2600  | 15.5         | 14.56   |                       |
| CA_2A+2A-7A+7A     | 5M            | 19175      | 1175       | 1     | 24           | 20M           | 700        | 1          | 0     | 0            | 10M           | 3400       | 20M        | 2850  | 15.5         | 14.67   |                       |
| CA_2A+2A-66A+66A   | 5M            | 19175      | 1175       | 1     | 24           | 20M           | 700        | 1          | 0     | 0            | 20M           | 66536      | 20M        | 67236 | 15.5         | 14.62   |                       |
| CA_4A+4A-2A+2A     | 20M           | 20050      | 2050       | 1     | 0            | 20M           | 2300       | 1          | 0     | 0            | 5M            | 1175       | 20M        | 700   | 15.5         | 15.57   |                       |
| CA_4A+4A-5A+5A     | 20M           | 20050      | 2050       | 1     | 0            | 20M           | 2300       | 1          | 0     | 0            | 10M           | 2450       | 10M        | 2600  | 15.5         | 15.54   |                       |
| CA_4A+4A-7A+7A     | 20M           | 20050      | 2050       | 1     | 0            | 20M           | 2300       | 1          | 0     | 0            | 10M           | 3400       | 20M        | 2850  | 15.5         | 15.58   |                       |
| CA_5A+5A-1A+1A     | 10M           | 20450      | 2450       | 25    | 0            | 10M           | 2600       | 25         | 0     | 0            | 20M           | 250        | 20M        | 500   | 20           | 18.95   |                       |
| CA_5A+5A-2A+2A     | 10M           | 20450      | 2450       | 25    | 0            | 10M           | 2600       | 25         | 0     | 0            | 5M            | 1175       | 20M        | 700   | 20           | 18.91   |                       |
| CA_5A+5A-3A+3A     | 10M           | 20450      | 2450       | 25    | 0            | 10M           | 2600       | 25         | 0     | 0            | 20M           | 1300       | 20M        | 1850  | 20           | 18.91   |                       |
| CA_5A+5A-7A+7A     | 10M           | 20450      | 2450       | 25    | 0            | 10M           | 2600       | 25         | 0     | 0            | 10M           | 3400       | 20M        | 2850  | 20           | 18.88   |                       |
| CA_5A+5A-41A+41A   | 10M           | 20450      | 2450       | 25    | 0            | 10M           | 2600       | 25         | 0     | 0            | 15M           | 39725      | 15M        | 41515 | 20           | 18.87   |                       |
| CA_7A+7A-1A+1A     | 10M           | 21400      | 3400       | 25    | 0            | 20M           | 2850       | 25         | 0     | 0            | 20M           | 250        | 20M        | 500   | 16           | 15.13   |                       |
| CA_7A+7A-3A+3A     | 10M           | 21400      | 3400       | 25    | 0            | 20M           | 2850       | 25         | 0     | 0            | 20M           | 1300       | 20M        | 1850  | 16           | 15.07   |                       |
| CA_7A+7A-5A+5A     | 10M           | 21400      | 3400       | 25    | 0            | 20M           | 2850       | 25         | 0     | 0            | 10M           | 2450       | 10M        | 2600  | 16           | 15.05   |                       |
| CA_41A+41A-1A+1A   | 15M           | 39725      | 39725      | 1     | 74           | 15M           | 41515      | 1          | 74    | 0            | 20M           | 250        | 20M        | 500   | 17.5         | 16.94   |                       |
| CA_41A+41A-3A+3A   | 15M           | 39725      | 39725      | 1     | 74           | 15M           | 41515      | 1          | 74    | 0            | 20M           | 1300       | 20M        | 1850  | 17.5         | 16.92   |                       |
| CA_41A+41A-5A+5A   | 15M           | 39725      | 39725      | 1     | 74           | 15M           | 41515      | 1          | 74    | 0            | 10M           | 2450       | 10M        | 2600  | 17.5         | 16.96   |                       |
| CA_66A+66A-2A+2A   | 20M           | 132072     | 66536      | 50    | 25           | 20M           | 67236      | 50         | 25    | 0            | 5M            | 1175       | 20M        | 700   | 14.5         | 13.43   |                       |

## ANT13 DSI4

| DL LTE CA Class    | PCC           |            |            |       |              | DSI4          |            |            |       |              | SCC           |            |            |       |              | Power   |                       |
|--------------------|---------------|------------|------------|-------|--------------|---------------|------------|------------|-------|--------------|---------------|------------|------------|-------|--------------|---------|-----------------------|
|                    | PCC Bandwidth | UL channel | DL channel | UL RB | UL RB OFFSET | PCC Bandwidth | UL channel | DL channel | UL RB | UL RB OFFSET | SCC Bandwidth | UL channel | DL channel | UL RB | UL RB OFFSET | tune up | conducted power (dBm) |
| CA_7C-7C           | 15M           | 21375      | 3350       | 36    | 0            | 15M           | 3225       | 36         | 0     | 0            | 15M           | 3350       | 15M        | 3225  | 16           | 15.02   |                       |
| CA_38C-38C         | 20M           | 37850      | 37850      | 1     | 50           | 20M           | 38048      | 1          | 50    | 0            | 20M           | 37850      | 20M        | 38048 | 24           | 23.23   |                       |
| CA_41C-41C         | 15M           | 41515      | 41515      | 1     | 37           | 15M           | 41365      | 1          | 37    | 0            | 15M           | 41515      | 15M        | 41365 | 24           | 22.94   |                       |
| CA_66C-66C         | 20M           | 132072     | 66536      | 50    | 25           | 20M           | 33734      | 50         | 25    | 0            | 20M           | 66536      | 20M        | 33734 | 24           | 22.93   |                       |
| CA_4A+4A-4A+4A     | 20M           | 20050      | 2050       | 1     | 0            | 20M           | 2300       | 1          | 0     | 0            | 20M           | 2050       | 20M        | 2300  | 24           | 22.97   |                       |
| CA_7A+7A-7A+7A     | 10M           | 21400      | 3400       | 25    | 0            | 20M           | 2850       | 25         | 0     | 0            | 10M           | 3400       | 20M        | 2850  | 24           | 22.79   |                       |
| CA_41A+41A-41A+41A | 15M           | 39725      | 39725      | 1     | 74           | 15M           | 41515      | 1          | 74    | 0            | 15M           | 39725      | 15M        | 41515 | 24           | 23.02   |                       |
| CA_66A+66A-66A+66A | 20M           | 132072     | 66536      | 50    | 25           | 20M           | 67236      | 50         | 25    | 0            | 20M           | 66536      | 20M        | 67236 | 24           | 22.91   |                       |
| CA_2A+2A-4A+4A     | 5M            | 19175      | 1175       | 1     | 24           | 20M           | 700        | 1          | 0     | 0            | 20M           | 2050       | 20M        | 2300  | 24           | 23.06   |                       |
| CA_2A+2A-5A+5A     | 5M            | 19175      | 1175       | 1     | 24           | 20M           | 700        | 1          | 0     | 0            | 10M           | 2450       | 10M        | 2600  | 24           | 23.1    |                       |
| CA_2A+2A-7A+7A     | 5M            | 19175      | 1175       | 1     | 24           | 20M           | 700        | 1          | 0     | 0            | 10M           | 3400       | 20M        | 2850  | 24           | 23.08   |                       |
| CA_2A+2A-66A+66A   | 5M            | 19175      | 1175       | 1     | 24           | 20M           | 700        | 1          | 0     | 0            | 20M           | 66536      | 20M        | 67236 | 24           | 23.04   |                       |
| CA_4A+4A-2A+2A     | 20M           | 20050      | 2050       | 1     | 0            | 20M           | 2300       | 1          | 0     | 0            | 5M            | 1175       | 20M        | 700   | 24           | 23.1    |                       |
| CA_4A+4A-5A+5A     | 20M           | 20050      | 2050       | 1     | 0            | 20M           | 2300       | 1          | 0     | 0            | 10M           | 2450       | 10M        | 2600  | 24           | 23.07   |                       |
| CA_4A+4A-7A+7A     | 20M           | 20050      | 2050       | 1     | 0            | 20M           | 2300       | 1          | 0     | 0            | 10M           | 3400       | 20M        | 2850  | 24           | 23.07   |                       |
| CA_5A+5A-1A+1A     | 10M           | 20450      | 2450       | 25    | 0            | 10M           | 2600       | 25         | 0     | 0            | 20M           | 250        | 20M        | 500   | 24.5         | 23.36   |                       |
| CA_5A+5A-2A+2A     | 10M           | 20450      | 2450       | 25    | 0            | 10M           | 2600       | 25         | 0     | 0            | 5M            | 1175       | 20M        | 700   | 24.5         | 23.35   |                       |
| CA_5A+5A-3A+3A     | 10M           | 20450      | 2450       | 25    | 0            | 10M           | 2600       | 25         | 0     | 0            | 20M           | 1300       | 20M        | 1850  | 24.5         | 23.32   |                       |
| CA_5A+5A-7A+7A     | 10M           | 20450      | 2450       | 25    | 0            | 10M           | 2600       | 25         | 0     | 0            | 10M           | 3400       | 20M        | 2850  | 24.5         | 23.34   |                       |
| CA_5A+5A-41A+41A   | 10M           | 20450      | 2450       | 25    | 0            | 10M           | 2600       | 25         | 0     | 0            | 15M           | 39725      | 15M        | 41515 | 24.5         | 23.37   |                       |
| CA_7A+7A-1A+1A     | 10M           | 21400      | 3400       | 25    | 0            | 20M           | 2850       | 25         | 0     | 0            | 20M           | 250        | 20M        | 500   | 23.5         | 22.71   |                       |
| CA_7A+7A-3A+3A     | 10M           | 21400      | 3400       | 25    | 0            | 20M           | 2850       | 25         | 0     | 0            | 20M           | 1300       | 20M        | 1850  | 23.5         | 22.69   |                       |
| CA_7A+7A-5A+5A     | 10M           | 21400      | 3400       | 25    | 0            | 20M           | 2850       | 25         | 0     | 0            | 10M           | 2450       | 10M        | 2600  | 23.5         | 22.7    |                       |
| CA_41A+41A-1A+1A   | 15M           | 39725      | 39725      | 1     | 74           | 15M           | 41515      | 1          | 74    | 0            | 20M           | 250        | 20M        | 500   | 24           | 23.4    |                       |
| CA_41A+41A-3A+3A   | 15M           | 39725      | 39725      | 1     | 74           | 15M           | 41515      | 1          | 74    | 0            | 20M           | 1300       | 20M        | 1850  | 24           | 23.39   |                       |
| CA_41A+41A-5A+5A   | 15M           | 39725      | 39725      | 1     | 74           | 15M           | 41515      | 1          | 74    | 0            | 10M           | 2450       | 10M        | 2600  | 24           | 23.45   |                       |
| CA_66A+66A-2A+2A   | 20M           | 132072     | 66536      | 50    | 25           | 20M           | 67236      | 50         | 25    | 0            | 5M            | 1175       | 20M        | 700   | 24           | 22.92   |                       |

## ANT13 DSI8/9/10

| DSB8/9/10          |               |            |            |       |              |               |            |       |              |               |            |       |              |               |            |         |                       |
|--------------------|---------------|------------|------------|-------|--------------|---------------|------------|-------|--------------|---------------|------------|-------|--------------|---------------|------------|---------|-----------------------|
| DL TE CA Class     | PCC           |            |            |       |              | SCC           |            |       |              |               | SCC        |       |              |               |            | Power   |                       |
|                    | PCC Bandwidth | UL channel | DL channel | UL RB | UL RB OFFSET | SCC Bandwidth | DL channel | UL RB | UL RB OFFSET | SCC Bandwidth | DL channel | UL RB | UL RB OFFSET | SCC Bandwidth | DL channel | tune up | conducted power (dBm) |
| CA_7C-7C           | 15M           | 21375      | 3350       | 36    | 0            | 15M           | 3225       | 36    | 0            | 15M           | 3350       | 15M   | 3225         | 15M           | 3225       | 18.5    | 17.86                 |
| CA_38C-38C         | 20M           | 37850      | 37850      | 1     | 50           | 20M           | 38048      | 1     | 50           | 20M           | 37850      | 20M   | 38048        | 20M           | 38048      | 22.5    | 21.58                 |
| CA_41C-41C         | 15M           | 41515      | 41515      | 1     | 37           | 15M           | 41365      | 1     | 37           | 15M           | 41515      | 15M   | 41365        | 15M           | 41365      | 22      | 21.02                 |
| CA_66C-66C         | 20M           | 132072     | 66536      | 50    | 25           | 20M           | 33734      | 50    | 25           | 20M           | 66536      | 20M   | 33734        | 20M           | 33734      | 19      | 17.98                 |
| CA_4A+4A-4A+4A     | 20M           | 20050      | 2050       | 0     | 0            | 20M           | 2300       | 50    | 0            | 20M           | 2050       | 20M   | 2300         | 20M           | 2300       | 18.5    | 17.69                 |
| CA_7A+7A-7A+7A     | 10M           | 21400      | 3400       | 25    | 0            | 20M           | 2850       | 1     | 0            | 10M           | 3400       | 20M   | 2850         | 10M           | 3400       | 18.5    | 17.88                 |
| CA_41A+41A-41A+41A | 15M           | 39725      | 39725      | 1     | 74           | 15M           | 41515      | 1     | 74           | 15M           | 39725      | 15M   | 41515        | 15M           | 41515      | 22      | 21.11                 |
| CA_66A+66A-66A+66A | 20M           | 66536      | 66536      | 50    | 25           | 20M           | 67236      | 50    | 25           | 20M           | 66536      | 20M   | 67236        | 20M           | 67236      | 19      | 17.8                  |
| CA_2A+2A-4A+4A     | 5M            | 18900      | 900        | 12    | 0            | 20M           | 2175       | 1     | 0            | 20M           | 2050       | 20M   | 2300         | 20M           | 2300       | 18.5    | 17.52                 |
| CA_2A+2A-5A+5A     | 5M            | 18900      | 900        | 12    | 0            | 10M           | 2325       | 1     | 0            | 10M           | 2450       | 10M   | 2600         | 10M           | 2600       | 18.5    | 17.5                  |
| CA_2A+2A-7A+7A     | 5M            | 18900      | 900        | 12    | 0            | 20M           | 3100       | 1     | 0            | 10M           | 3400       | 20M   | 2850         | 10M           | 3400       | 18.5    | 17.5                  |
| CA_2A+2A-66A+66A   | 5M            | 18900      | 900        | 12    | 0            | 20M           | 66786      | 1     | 0            | 20M           | 66536      | 20M   | 67236        | 20M           | 67236      | 18.5    | 17.52                 |
| CA_4A+4A-2A+2A     | 20M           | 20050      | 2050       | 0     | 0            | 20M           | 2300       | 50    | 0            | 5M            | 1175       | 20M   | 700          | 20M           | 700        | 18.5    | 17.6                  |
| CA_4A+4A-5A+5A     | 20M           | 20050      | 2050       | 0     | 0            | 20M           | 2300       | 50    | 0            | 10M           | 2450       | 10M   | 2600         | 10M           | 2600       | 18.5    | 17.69                 |
| CA_4A+4A-7A+7A     | 20M           | 20050      | 2050       | 0     | 0            | 20M           | 2300       | 50    | 0            | 10M           | 3400       | 20M   | 2850         | 10M           | 3400       | 18.5    | 17.67                 |
| CA_7A+7A-1A+1A     | 10M           | 21400      | 3400       | 25    | 0            | 20M           | 2850       | 1     | 0            | 20M           | 250        | 20M   | 500          | 10M           | 500        | 18.5    | 17.85                 |
| CA_7A+7A-3A+3A     | 10M           | 21400      | 3400       | 25    | 0            | 20M           | 2850       | 25    | 0            | 10M           | 2850       | 10M   | 1850         | 10M           | 1850       | 18.5    | 17.85                 |
| CA_7A+7A-5A+5A     | 10M           | 21400      | 3400       | 25    | 0            | 20M           | 2850       | 1     | 0            | 10M           | 2450       | 10M   | 2600         | 10M           | 2600       | 18.5    | 17.88                 |
| CA_41A+41A-1A+1A   | 15M           | 39725      | 39725      | 1     | 74           | 15M           | 41515      | 1     | 74           | 20M           | 250        | 20M   | 500          | 20M           | 500        | 22      | 21.43                 |
| CA_41A+41A-3A+3A   | 15M           | 39725      | 39725      | 1     | 74           | 15M           | 41515      | 1     | 74           | 20M           | 1300       | 20M   | 1850         | 20M           | 1850       | 22      | 21.42                 |
| CA_41A+41A-5A+5A   | 15M           | 39725      | 39725      | 1     | 74           | 15M           | 41515      | 1     | 74           | 10M           | 2450       | 10M   | 2600         | 22            | 21.45      | 22      | 21.45                 |
| CA_66A+66A-2A+2A   | 20M           | 139072     | 66536      | 50    | 25           | 20M           | 67236      | 50    | 25           | 20M           | 66536      | 20M   | 67236        | 20M           | 67236      | 19      | 17.82                 |

## ANT31/41 DSI2

| DL/TE CA class     | DSI2/3        |            |            |       |              |               |            |       |              |               |            |               |            |         |                       |       |  |
|--------------------|---------------|------------|------------|-------|--------------|---------------|------------|-------|--------------|---------------|------------|---------------|------------|---------|-----------------------|-------|--|
|                    | PCC           |            |            |       |              | PCC           |            |       |              |               | SCC        |               |            |         |                       | Power |  |
|                    | PCC Bandwidth | UL channel | DL channel | UL RB | UL RB OFFSET | PCC Bandwidth | DL channel | UL RB | UL RB OFFSET | SCC Bandwidth | DL channel | SCC Bandwidth | DL channel | tune up | conducted power (dBm) |       |  |
| CA_7C-7C           | 15M           | 21375      | 3350       | 1     | 37           | 15M           | 3225       | 1     | 37           | 15M           | 3350       | 15M           | 3225       | 24      | 23.32                 |       |  |
| CA_35C-35C         | 20M           | 37850      | 37850      | 1     | 50           | 20M           | 37850      | 1     | 50           | 20M           | 37850      | 20M           | 38048      | 24      | 23.14                 |       |  |
| CA_41C-41C         | 15M           | 41515      | 41515      | 1     | 37           | 15M           | 41365      | 1     | 37           | 15M           | 41515      | 15M           | 41365      | 24      | 23.27                 |       |  |
| CA_66C-66C         | 20M           | 132072     | 66536      | 1     | 50           | 20M           | 33734      | 1     | 50           | 20M           | 66536      | 20M           | 33734      | 24      | 23.12                 |       |  |
| CA_4A+4A-4A+4A     | 20M           | 20050      | 2050       | 1     | 0            | 20M           | 2300       | 1     | 0            | 20M           | 2050       | 20M           | 2300       | 24.8    | 23.71                 |       |  |
| CA_7A+7A-7A+7A     | 20M           | 21400      | 3400       | 1     | 24           | 20M           | 2850       | 1     | 0            | 10M           | 3400       | 20M           | 2850       | 24      | 23.39                 |       |  |
| CA_41A+41A-41A+41A | 15M           | 39725      | 39725      | 1     | 37           | 15M           | 41515      | 1     | 37           | 15M           | 39725      | 15M           | 41515      | 24      | 23.15                 |       |  |
| CA_66A+66A-66A+66A | 20M           | 132072     | 66536      | 1     | 50           | 20M           | 67236      | 1     | 50           | 20M           | 66536      | 20M           | 67236      | 24.5    | 23.13                 |       |  |
| CA_2A+2A-4A+4A     | 5M            | 19175      | 1175       | 1     | 50           | 20M           | 700        | 1     | 0            | 20M           | 2050       | 20M           | 2300       | 24.8    | 23.56                 |       |  |
| CA_2A+2A-5A+5A     | 5M            | 19175      | 1175       | 1     | 50           | 20M           | 700        | 1     | 0            | 10M           | 2450       | 10M           | 2600       | 24.8    | 23.51                 |       |  |
| CA_2A+2A-7A+7A     | 5M            | 19175      | 1175       | 1     | 50           | 20M           | 700        | 1     | 0            | 10M           | 3400       | 20M           | 2850       | 24.8    | 23.55                 |       |  |
| CA_2A+2A-66A+66A   | 5M            | 19175      | 1175       | 1     | 50           | 20M           | 700        | 1     | 0            | 20M           | 66536      | 20M           | 67236      | 24.8    | 23.53                 |       |  |
| CA_4A+4A-2A+2A     | 20M           | 20050      | 2050       | 1     | 0            | 20M           | 2300       | 1     | 0            | 5M            | 1175       | 20M           | 700        | 24.8    | 23.75                 |       |  |
| CA_4A+4A-5A+5A     | 20M           | 20050      | 2050       | 1     | 0            | 20M           | 2300       | 1     | 0            | 10M           | 2450       | 10M           | 2600       | 24.8    | 23.76                 |       |  |
| CA_4A+4A-7A+7A     | 20M           | 20050      | 2050       | 1     | 0            | 20M           | 2300       | 1     | 0            | 10M           | 3400       | 20M           | 2850       | 24.8    | 23.85                 |       |  |
| CA_5A+5A-1A+1A     | 10M           | 20450      | 2450       | 1     | 24           | 10M           | 2600       | 1     | 0            | 20M           | 250        | 20M           | 500        | 24.5    | 23.26                 |       |  |
| CA_5A+5A-2A+2A     | 10M           | 20450      | 2450       | 1     | 24           | 10M           | 2600       | 1     | 0            | 5M            | 1175       | 20M           | 700        | 24.5    | 23.28                 |       |  |
| CA_5A+5A-3A+3A     | 10M           | 20450      | 2450       | 1     | 24           | 10M           | 2600       | 1     | 0            | 20M           | 1300       | 20M           | 1850       | 24.5    | 23.21                 |       |  |
| CA_5A+5A-7A+7A     | 10M           | 20450      | 2450       | 1     | 24           | 10M           | 2600       | 1     | 0            | 10M           | 3400       | 20M           | 2850       | 24.5    | 23.2                  |       |  |
| CA_5A+5A-41A+41A   | 10M           | 20450      | 2450       | 1     | 24           | 10M           | 2600       | 1     | 0            | 15M           | 39725      | 15M           | 41515      | 24.5    | 23.27                 |       |  |
| CA_7A+7A-1A+1A     | 10M           | 21400      | 3400       | 1     | 24           | 20M           | 2850       | 1     | 0            | 20M           | 250        | 20M           | 500        | 24      | 23.37                 |       |  |
| CA_7A+7A-3A+3A     | 10M           | 21400      | 3400       | 1     | 24           | 20M           | 2850       | 1     | 0            | 20M           | 1300       | 20M           | 1850       | 24      | 23.32                 |       |  |
| CA_7A+7A-5A+5A     | 10M           | 21400      | 3400       | 1     | 24           | 20M           | 2850       | 1     | 0            | 10M           | 2450       | 10M           | 2600       | 24      | 23.35                 |       |  |
| CA_41A+41A-1A+1A   | 15M           | 39725      | 39725      | 1     | 37           | 15M           | 41515      | 1     | 37           | 20M           | 250        | 20M           | 500        | 24      | 23.41                 |       |  |
| CA_41A+41A-3A+3A   | 15M           | 39725      | 39725      | 1     | 37           | 15M           | 41515      | 1     | 37           | 20M           | 1300       | 20M           | 1850       | 24      | 23.44                 |       |  |
| CA_41A+41A-5A+5A   | 15M           | 39725      | 39725      | 1     | 37           | 15M           | 41515      | 1     | 37           | 10M           | 2450       | 10M           | 2600       | 24      | 23.45                 |       |  |
| CA_66A+66A-2A+2A   | 20M           | 132072     | 66536      | 1     | 50           | 20M           | 67236      | 1     | 50           | 5M            | 1175       | 20M           | 700        | 24.5    | 23.1                  |       |  |

## ANT31/41 DSI4

| DL TE CA Class     | DS14          |            |            |       |              |               |            |       |              |               |            |               |            |         |                       |  |
|--------------------|---------------|------------|------------|-------|--------------|---------------|------------|-------|--------------|---------------|------------|---------------|------------|---------|-----------------------|--|
|                    | PCC           |            |            |       |              | PCC           |            |       |              |               | SCC        |               | SCC        |         | Power                 |  |
|                    | PCC Bandwidth | UL channel | DL channel | UL RB | UL RB OFFSET | PCC Bandwidth | DL channel | UL RB | UL RB OFFSET | SCC Bandwidth | DL channel | SCC Bandwidth | DL channel | tune up | conducted power (dBm) |  |
| CA_7C-7C           | 15M           | 21375      | 3350       | 1     | 37           | 15M           | 3225       | 1     | 37           | 15M           | 3350       | 15M           | 3225       | 22      | 21.34                 |  |
| CA_66C-66C         | 20M           | 132072     | 66536      | 50    | 50           | 20M           | 33734      | 50    | 50           | 20M           | 66536      | 20M           | 33734      | 21.8    | 20.81                 |  |
| CA_4A+4A-4A+4A     | 20M           | 20050      | 2050       | 1     | 0            | 20M           | 2300       | 1     | 0            | 20M           | 2050       | 20M           | 2300       | 21.8    | 20.8                  |  |
| CA_7A+7A-7A+7A     | 10M           | 21400      | 3400       | 1     | 24           | 20M           | 2850       | 1     | 0            | 10M           | 3400       | 20M           | 2850       | 22      | 21.42                 |  |
| CA_66A+66A-66A+66A | 20M           | 132072     | 66536      | 1     | 50           | 20M           | 67236      | 1     | 50           | 20M           | 66536      | 20M           | 67236      | 21.8    | 20.81                 |  |
| CA_2A+2A-4A+4A     | 5M            | 19175      | 1175       | 1     | 12           | 20M           | 700        | 1     | 0            | 20M           | 2050       | 20M           | 2300       | 23.3    | 22.08                 |  |
| CA_2A+2A-5A+5A     | 5M            | 19175      | 1175       | 1     | 12           | 20M           | 700        | 1     | 0            | 10M           | 2450       | 10M           | 2600       | 23.3    | 22.08                 |  |
| CA_2A+2A-7A+7A     | 5M            | 19175      | 1175       | 1     | 12           | 20M           | 700        | 1     | 0            | 10M           | 3400       | 20M           | 2850       | 23.3    | 22.07                 |  |
| CA_2A+2A-66A+66A   | 5M            | 19175      | 1175       | 1     | 12           | 20M           | 700        | 1     | 0            | 20M           | 66536      | 20M           | 67236      | 23.3    | 22.12                 |  |
| CA_4A+4A-2A+2A     | 20M           | 20050      | 2050       | 1     | 50           | 20M           | 2300       | 1     | 50           | 5M            | 1175       | 20M           | 700        | 21.8    | 20.92                 |  |
| CA_4A+4A-5A+5A     | 20M           | 20050      | 2050       | 1     | 50           | 20M           | 2300       | 1     | 50           | 10M           | 2450       | 10M           | 2600       | 21.8    | 20.87                 |  |
| CA_4A+4A-7A+7A     | 20M           | 20050      | 2050       | 1     | 50           | 20M           | 2300       | 1     | 50           | 10M           | 3400       | 20M           | 2850       | 21.8    | 20.88                 |  |
| CA_7A+7A-1A+1A     | 10M           | 21400      | 3400       | 1     | 24           | 20M           | 2850       | 1     | 0            | 20M           | 250        | 20M           | 500        | 22      | 21.35                 |  |
| CA_7A+7A-3A+3A     | 10M           | 21400      | 3400       | 1     | 24           | 20M           | 2850       | 1     | 0            | 20M           | 1300       | 20M           | 1850       | 22      | 21.4                  |  |
| CA_7A+7A-5A+5A     | 10M           | 21400      | 3400       | 1     | 24           | 20M           | 2850       | 1     | 0            | 10M           | 2450       | 10M           | 2600       | 22      | 21.37                 |  |
| CA_66A+66A-2A+2A   | 20M           | 132072     | 66536      | 1     | 50           | 20M           | 2300       | 1     | 50           | 5M            | 1175       | 20M           | 700        | 21.8    | 20.87                 |  |

## ANT31/41 DSI8/9/10

| DS18/9/10          |               |            |            |       |              |               |            |       |              |               |            |               |            |         |                       |  |
|--------------------|---------------|------------|------------|-------|--------------|---------------|------------|-------|--------------|---------------|------------|---------------|------------|---------|-----------------------|--|
| DL TE CA Class     | PCC           |            |            |       |              | PCC           |            |       |              |               | SCC        |               | SCC        |         | Power                 |  |
|                    | PCC Bandwidth | UL channel | DL channel | UL RB | UL RB OFFSET | PCC Bandwidth | DL channel | UL RB | UL RB OFFSET | SCC Bandwidth | DL channel | SCC Bandwidth | DL channel | tune up | conducted power (dBm) |  |
| CA_7C-7C           | 15M           | 21375      | 3350       | 1     | 37           | 15M           | 3225       | 1     | 37           | 15M           | 3350       | 15M           | 3225       | 21      | 19.98                 |  |
| CA_66C-66C         | 20M           | 132072     | 66536      | 50    | 50           | 20M           | 33734      | 50    | 50           | 20M           | 66536      | 20M           | 33734      | 20.8    | 19.72                 |  |
| CA_4A+4A-4A+4A     | 20M           | 20050      | 2050       | 1     | 0            | 20M           | 2300       | 1     | 0            | 20M           | 2050       | 20M           | 2300       | 20.5    | 19.74                 |  |
| CA_7A+7A-7A+7A     | 10M           | 21400      | 3400       | 25    | 0            | 20M           | 2850       | 1     | 0            | 10M           | 3400       | 20M           | 2850       | 21      | 20.1                  |  |
| CA_66A+66A-66A+66A | 20M           | 132072     | 66536      | 50    | 50           | 20M           | 67236      | 50    | 50           | 20M           | 66536      | 20M           | 67236      | 20.8    | 19.77                 |  |
| CA_2A+2A-4A+4A     | 5M            | 19175      | 1175       | 50    | 0            | 20M           | 700        | 1     | 0            | 20M           | 2050       | 20M           | 2300       | 21.5    | 20.5                  |  |
| CA_2A+2A-5A+5A     | 5M            | 19175      | 1175       | 50    | 0            | 20M           | 700        | 1     | 0            | 10M           | 2450       | 10M           | 2600       | 21.5    | 20.63                 |  |
| CA_2A+2A-7A+7A     | 5M            | 19175      | 1175       | 50    | 0            | 20M           | 700        | 1     | 0            | 10M           | 3400       | 20M           | 2850       | 21.5    | 20.67                 |  |
| CA_2A+2A-66A+66A   | 5M            | 19175      | 1175       | 50    | 0            | 20M           | 700        | 1     | 0            | 20M           | 66536      | 20M           | 67236      | 21.5    | 20.6                  |  |
| CA_4A+4A-2A+2A     | 20M           | 20050      | 2050       | 1     | 0            | 20M           | 2300       | 1     | 0            | 5M            | 1175       | 20M           | 700        | 20.5    | 19.82                 |  |
| CA_4A+4A-5A+5A     | 20M           | 20050      | 2050       | 1     | 0            | 20M           | 2300       | 1     | 0            | 10M           | 2450       | 10M           | 2600       | 20.5    | 19.8                  |  |
| CA_4A+4A-7A+7A     | 20M           | 20050      | 2050       | 1     | 0            | 20M           | 2300       | 1     | 0            | 10M           | 3400       | 20M           | 2850       | 20.5    | 19.85                 |  |
| CA_7A+7A-1A+1A     | 10M           | 21400      | 3400       | 25    | 0            | 20M           | 2850       | 1     | 0            | 20M           | 250        | 20M           | 500        | 21      | 20.16                 |  |
| CA_7A+7A-3A+3A     | 10M           | 21400      | 3400       | 25    | 0            | 20M           | 2850       | 1     | 0            | 20M           | 1300       | 20M           | 1850       | 21      | 20.14                 |  |
| CA_7A+7A-5A+5A     | 10M           | 21400      | 3400       | 25    | 0            | 20M           | 2850       | 1     | 0            | 10M           | 2450       | 10M           | 2600       | 21      | 20.14                 |  |
| CA_66A+66A-2A+2A   | 20M           | 132072     | 66536      | 50    | 50           | 20M           | 67236      | 50    | 50           | 5M            | 1175       | 20M           | 700        | 20.8    | 19.79                 |  |

## 11.4 NR 5G Measurement result

According to April 2015 TCB workshop, SAR test exclusion can be applied for testing overlapping 5G NR(FR1) bands as follows:

- The maximum output power, including tolerance, for the smaller band must be  $\leq$  the larger band to qualify for the SAR test exclusion.
- The channel bandwidth and other operating parameters for the smaller band must be fully supported by the larger band.

Due to test setup limitations, SAR testing for NR was performed using Factory Test Mode software to establish the connection and perform SAR with 100% transmission.

Uplink RB allocations were used to Table 6.1-1 of the 3GPP TS 138.521-1:

| Channel Bandwidth | SCS(kHz) | OFDM  | RB allocation  |                 |               |                |            |                    |                |                 |
|-------------------|----------|-------|----------------|-----------------|---------------|----------------|------------|--------------------|----------------|-----------------|
|                   |          |       | Edge_Full_Left | Edge_Full_Right | Edge_1RB_Left | Edge_1RB_Right | Outer_Full | Inner_Full         | Inner_1RB_Left | Inner_1RB_Right |
| 5MHz              | 15       | DFT-s | 2@0            | 2@23            | 1@0           | 1@24           | 25@0       | 12@6               | 1@1            | 1@23            |
|                   |          | CP    | 2@0            | 2@23            | 1@0           | 1@24           | 25@0       | 13@6               | 1@1            | 1@23            |
|                   | 30       | DFT-s | 2@0            | 2@9             | 1@0           | 1@10           | 10@0       | 5@2 <sup>1</sup>   | 1@1            | 1@9             |
|                   |          | CP    | 2@0            | 2@9             | 1@0           | 1@10           | 11@0       | 5@2 <sup>1</sup>   | 1@1            | 1@9             |
|                   | 60       | DFT-s | N/A            | N/A             | N/A           | N/A            | N/A        | N/A                | N/A            | N/A             |
|                   |          | CP    | N/A            | N/A             | N/A           | N/A            | N/A        | N/A                | N/A            | N/A             |
| 10MHz             | 15       | DFT-s | 2@0            | 2@50            | 1@0           | 1@51           | 50@0       | 25@12              | 1@1            | 1@50            |
|                   |          | CP    | 2@0            | 2@50            | 1@0           | 1@51           | 52@0       | 26@13              | 1@1            | 1@50            |
|                   | 30       | DFT-s | 2@0            | 2@22            | 1@0           | 1@23           | 24@0       | 12@6               | 1@1            | 1@22            |
|                   |          | CP    | 2@0            | 2@22            | 1@0           | 1@23           | 24@0       | 12@6               | 1@1            | 1@22            |
|                   | 60       | DFT-s | 2@0            | 2@9             | 1@0           | 1@10           | 10@0       | 5@2 <sup>1</sup>   | 1@1            | 1@9             |
|                   |          | CP    | 2@0            | 2@9             | 1@0           | 1@10           | 11@0       | 5@2 <sup>1</sup>   | 1@1            | 1@9             |
| 15MHz             | 15       | DFT-s | 2@0            | 2@77            | 1@0           | 1@78           | 75@0       | 36@18              | 1@1            | 1@77            |
|                   |          | CP    | 2@0            | 2@77            | 1@0           | 1@78           | 79@0       | 39@19 <sup>1</sup> | 1@1            | 1@77            |
|                   | 30       | DFT-s | 2@0            | 2@36            | 1@0           | 1@37           | 36@0       | 18@9               | 1@1            | 1@36            |
|                   |          | CP    | 2@0            | 2@36            | 1@0           | 1@37           | 38@0       | 19@9               | 1@1            | 1@36            |
|                   | 60       | DFT-s | 2@0            | 2@16            | 1@0           | 1@17           | 18@0       | 9@4                | 1@1            | 1@16            |
|                   |          | CP    | 2@0            | 2@16            | 1@0           | 1@17           | 18@0       | 9@4                | 1@1            | 1@16            |
| 20MHz             | 15       | DFT-s | 2@0            | 2@104           | 1@0           | 1@105          | 100@0      | 50@25              | 1@1            | 1@104           |
|                   |          | CP    | 2@0            | 2@104           | 1@0           | 1@105          | 106@0      | 53@26              | 1@1            | 1@104           |
|                   | 30       | DFT-s | 2@0            | 2@49            | 1@0           | 1@50           | 50@0       | 25@12              | 1@1            | 1@49            |
|                   |          | CP    | 2@0            | 2@49            | 1@0           | 1@50           | 51@0       | 25@12 <sup>1</sup> | 1@1            | 1@49            |
|                   | 60       | DFT-s | 2@0            | 2@22            | 1@0           | 1@23           | 24@0       | 12@6               | 1@1            | 1@22            |
|                   |          | CP    | 2@0            | 2@22            | 1@0           | 1@23           | 24@0       | 12@6               | 1@1            | 1@22            |
| 25MHz             | 15       | DFT-s | 2@0            | 2@131           | 1@0           | 1@132          | 128@0      | 64@32              | 1@1            | 1@131           |
|                   |          | CP    | 2@0            | 2@131           | 1@0           | 1@132          | 133@0      | 67@33              | 1@1            | 1@131           |
|                   | 30       | DFT-s | 2@0            | 2@63            | 1@0           | 1@64           | 64@0       | 32@16              | 1@1            | 1@63            |
|                   |          | CP    | 2@0            | 2@63            | 1@0           | 1@64           | 65@0       | 33@16              | 1@1            | 1@63            |
|                   | 60       | DFT-s | 2@0            | 2@29            | 1@0           | 1@30           | 30@0       | 15@7 <sup>1</sup>  | 1@1            | 1@29            |
|                   |          | CP    | 2@0            | 2@29            | 1@0           | 1@30           | 31@0       | 15@7 <sup>1</sup>  | 1@1            | 1@29            |
| 30MHz             | 15       | DFT-s | 2@0            | 2@158           | 1@0           | 1@159          | 160@0      | 80@40              | 1@1            | 1@158           |
|                   |          | CP    | 2@0            | 2@158           | 1@0           | 1@159          | 160@0      | 80@40              | 1@1            | 1@158           |
|                   | 30       | DFT-s | 2@0            | 2@76            | 1@0           | 1@77           | 75@0       | 36@18              | 1@1            | 1@76            |
|                   |          | CP    | 2@0            | 2@76            | 1@0           | 1@77           | 78@0       | 39@19              | 1@1            | 1@76            |
|                   | 60       | DFT-s | 2@0            | 2@36            | 1@0           | 1@37           | 36@0       | 18@9               | 1@1            | 1@36            |
|                   |          | CP    | 2@0            | 2@36            | 1@0           | 1@37           | 38@0       | 19@9               | 1@1            | 1@36            |
| 40MHz             | 15       | DFT-s | 2@0            | 2@214           | 1@0           | 1@215          | 216@0      | 108@54             | 1@1            | 1@214           |
|                   |          | CP    | 2@0            | 2@214           | 1@0           | 1@215          | 216@0      | 108@54             | 1@1            | 1@214           |
|                   | 30       | DFT-s | 2@0            | 2@104           | 1@0           | 1@105          | 100@0      | 50@25              | 1@1            | 1@104           |
|                   |          | CP    | 2@0            | 2@104           | 1@0           | 1@105          | 106@0      | 53@26              | 1@1            | 1@104           |
|                   | 60       | DFT-s | 2@0            | 2@49            | 1@0           | 1@50           | 50@0       | 25@12              | 1@1            | 1@49            |
|                   |          | CP    | 2@0            | 2@49            | 1@0           | 1@50           | 51@0       | 25@12 <sup>1</sup> | 1@1            | 1@49            |
| 50MHz             | 15       | DFT-s | 2@0            | 2@268           | 1@0           | 1@269          | 270@0      | 135@67             | 1@1            | 1@268           |
|                   |          | CP    | 2@0            | 2@268           | 1@0           | 1@269          | 270@0      | 135@67             | 1@1            | 1@268           |
|                   | 30       | DFT-s | 2@0            | 2@131           | 1@0           | 1@132          | 128@0      | 64@32              | 1@1            | 1@131           |
|                   |          | CP    | 2@0            | 2@131           | 1@0           | 1@132          | 133@0      | 67@33              | 1@1            | 1@131           |
|                   | 60       | DFT-s | 2@0            | 2@63            | 1@0           | 1@64           | 64@0       | 32@16              | 1@1            | 1@63            |
|                   |          | CP    | 2@0            | 2@63            | 1@0           | 1@64           | 65@0       | 33@16              | 1@1            | 1@63            |
| 60MHz             | 15       | DFT-s | N/A            | N/A             | N/A           | N/A            | N/A        | N/A                | N/A            | N/A             |
|                   |          | CP    | N/A            | N/A             | N/A           | N/A            | N/A        | N/A                | N/A            | N/A             |
|                   | 30       | DFT-s | 2@0            | 2@160           | 1@0           | 1@161          | 162@0      | 81@40              | 1@1            | 1@160           |
|                   |          | CP    | 2@0            | 2@160           | 1@0           | 1@161          | 162@0      | 81@40              | 1@1            | 1@160           |
|                   | 60       | DFT-s | 2@0            | 2@77            | 1@0           | 1@78           | 75@0       | 36@18              | 1@1            | 1@77            |
|                   |          | CP    | 2@0            | 2@77            | 1@0           | 1@78           | 79@0       | 39@19 <sup>1</sup> | 1@1            | 1@77            |
| 80MHz             | 15       | DFT-s | N/A            | N/A             | N/A           | N/A            | N/A        | N/A                | N/A            | N/A             |
|                   |          | CP    | N/A            | N/A             | N/A           | N/A            | N/A        | N/A                | N/A            | N/A             |

|        |    |       |     |       |     |       |       |                    |     |       |
|--------|----|-------|-----|-------|-----|-------|-------|--------------------|-----|-------|
|        | 30 | DFT-s | 2@0 | 2@215 | 1@0 | 1@216 | 216@0 | 108@54             | 1@1 | 1@215 |
|        |    | CP    | 2@0 | 2@215 | 1@0 | 1@216 | 217@0 | 109@54             | 1@1 | 1@215 |
|        | 60 | DFT-s | 2@0 | 2@105 | 1@0 | 1@106 | 100@0 | 50@25              | 1@1 | 1@105 |
|        |    | CP    | 2@0 | 2@105 | 1@0 | 1@106 | 107@0 | 53@26 <sup>1</sup> | 1@1 | 1@105 |
| 90MHz  | 15 | DFT-s | N/A | N/A   | N/A | N/A   | N/A   | N/A                | N/A | N/A   |
|        |    | CP    | N/A | N/A   | N/A | N/A   | N/A   | N/A                | N/A | N/A   |
|        | 30 | DFT-s | 2@0 | 2@243 | 1@0 | 1@244 | 240@0 | 120@60             | 1@1 | 1@243 |
|        |    | CP    | 2@0 | 2@243 | 1@0 | 1@244 | 245@0 | 123@61             | 1@1 | 1@243 |
|        | 60 | DFT-s | 2@0 | 2@119 | 1@0 | 1@120 | 120@0 | 60@30              | 1@1 | 1@119 |
|        |    | CP    | 2@0 | 2@119 | 1@0 | 1@120 | 121@0 | 61@30              | 1@1 | 1@119 |
| 100MHz | 15 | DFT-s | N/A | N/A   | N/A | N/A   | N/A   | N/A                | N/A | N/A   |
|        |    | CP    | N/A | N/A   | N/A | N/A   | N/A   | N/A                | N/A | N/A   |
|        | 30 | DFT-s | 2@0 | 2@271 | 1@0 | 1@272 | 270@0 | 135@67             | 1@1 | 1@271 |
|        |    | CP    | 2@0 | 2@271 | 1@0 | 1@272 | 273@0 | 137@68             | 1@1 | 1@271 |
|        | 60 | DFT-s | 2@0 | 2@133 | 1@0 | 1@134 | 135@0 | 64@32              | 1@1 | 1@133 |
|        |    | CP    | 2@0 | 2@133 | 1@0 | 1@134 | 135@0 | 67@33 <sup>1</sup> | 1@1 | 1@133 |

Note 1: The allocated RB number  $L_{RB}$  is  $\text{ceil}(N_{RB}/2) - 1$  in order to meet Inner RB allocation definition ( $RB_{start,Low} \leq RB_{start} \leq RB_{start,High}$ ) described in subclause 6.2.2 of TS 38.101-1 [2].

### 3GPP MPR for NR:

**Table 6.2.2.3-1: Maximum Power Reduction (MPR) for Power 3**

| Modulation           | MPR (dB)            |                      |                      |
|----------------------|---------------------|----------------------|----------------------|
|                      | Edge RB allocations | Outer RB allocations | Inner RB allocations |
| DFT-s-OFDM PI/2 BPSK | $\leq 3.5^1$        | $\leq 1.2^1$         | $\leq 0.2^1$         |
|                      | $\leq 0.5^2$        |                      | $0^2$                |
| DFT-s-OFDM QPSK      | $\leq 1$            |                      | 0                    |
| DFT-s-OFDM 16 QAM    | $\leq 2$            |                      | $\leq 1$             |
| DFT-s-OFDM 64 QAM    |                     | $\leq 2.5$           |                      |
| DFT-s-OFDM 256 QAM   |                     | $\leq 4.5$           |                      |
| CP-OFDM QPSK         | $\leq 3$            |                      | $\leq 1.5$           |
| CP-OFDM 16 QAM       | $\leq 3$            |                      | $\leq 2$             |
| CP-OFDM 64 QAM       |                     | $\leq 3.5$           |                      |
| CP-OFDM 256 QAM      |                     | $\leq 6.5$           |                      |

NOTE 1: Applicable for UE operating in TDD mode with PI/2 BPSK modulation and UE indicates support for UE capability *powerBoosting-pi2BPSK* and if the IE *powerBoostPi2BPSK* is set to 1 and 40 % or less slots in radio frame are used for UL transmission for bands n40, n41, n77, n78 and n79. The reference power of 0dB MPR is 26dBm.

NOTE 2: Applicable for UE operating in FDD mode, or in TDD mode in bands other than n40, n41, n77, n78 and n79 and if the IE *powerBoostPi2BPSK* is set to 0 and if more than 40% of slots in radio frame are used for UL transmission for bands n40, n41, n77, n78 and n79.

**Table 6.2.2-2 Maximum power reduction (MPR) for power class 2**

| Modulation |           | MPR (dB)            |                      |                      |
|------------|-----------|---------------------|----------------------|----------------------|
|            |           | Edge RB allocations | Outer RB allocations | Inner RB allocations |
| DFT-s-OFDM | PI/2 BPSK | $\leq 3.5$          | $\leq 0.5$           | 0                    |
|            | QPSK      | $\leq 3.5$          | $\leq 1$             | 0                    |
|            | 16 QAM    | $\leq 3.5$          | $\leq 2$             | $\leq 1$             |
|            | 64 QAM    | $\leq 3.5$          | $\leq 2.5$           |                      |
|            | 256 QAM   |                     | $\leq 4.5$           |                      |
| CP-OFDM    | QPSK      | $\leq 3.5$          | $\leq 3$             | $\leq 1.5$           |
|            | 16 QAM    | $\leq 3.5$          | $\leq 3$             | $\leq 2$             |
|            | 64 QAM    |                     | $\leq 3.5$           |                      |
|            | 256 QAM   |                     | $\leq 6.5$           |                      |

### N7(ANT11 DSI2/3)

| Test Freq<br>Description | 5G-n7        |                |                       |                 |       |                           |                | Tune up | Power Results (dBm)<br>n7 |
|--------------------------|--------------|----------------|-----------------------|-----------------|-------|---------------------------|----------------|---------|---------------------------|
|                          | SCS<br>(kHz) | NR BW<br>(MHz) | Modulation            | RB allocation   |       | NR<br>Test Freq.<br>(MHz) | NR<br>Test CH. |         |                           |
| High                     | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6  | 2567.5                    | 513500         | 19.30   | 18.38                     |
| Middle                   | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6  | 2535                      | 507000         | 19.30   | 18.26                     |
| Low                      | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6  | 2502.5                    | 500500         | 19.30   | 18.34                     |
| High                     | 15           | 20             | DFT-s-OFDM QPSK       | Inner_Full      | 50_25 | 2560                      | 512000         | 19.30   | 18.39                     |
| Middle                   | 15           | 20             | DFT-s-OFDM QPSK       | Inner_Full      | 50_25 | 2535                      | 507000         | 19.30   | 18.27                     |
| Low                      | 15           | 20             | DFT-s-OFDM QPSK       | Inner_Full      | 50_25 | 2510                      | 502000         | 19.30   | 18.33                     |
| High                     | 15           | 20             | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 50_25 | 2560                      | 512000         | 19.30   | 18.36                     |
| High                     | 15           | 20             | DFT-s-OFDM 16QAM      | Inner_Full      | 50_25 | 2560                      | 512000         | 19.30   | 18.38                     |
| High                     | 15           | 20             | DFT-s-OFDM 64QAM      | Inner_Full      | 50_25 | 2560                      | 512000         | 19.30   | 18.37                     |
| High                     | 15           | 20             | DFT-s-OFDM 256QAM     | Inner_Full      | 50_25 | 2560                      | 512000         | 19.30   | 18.38                     |
| High                     | 15           | 20             | CP-OFDM QPSK          | Inner_Full      | 53_26 | 2560                      | 512000         | 19.30   | 18.35                     |
| High                     | 15           | 20             | CP-OFDM 16QAM         | Inner_Full      | 53_26 | 2560                      | 512000         | 19.30   | 18.38                     |
| High                     | 15           | 20             | CP-OFDM 64QAM         | Inner_Full      | 53_26 | 2560                      | 512000         | 19.30   | 18.36                     |
| High                     | 15           | 20             | CP-OFDM 256QAM        | Inner_Full      | 53_26 | 2560                      | 512000         | 18.00   | 16.94                     |
| High                     | 15           | 20             | DFT-s-OFDM QPSK       | Edge_1RB_Right  | 1_105 | 2560                      | 512000         | 19.30   | 18.18                     |
| High                     | 15           | 20             | DFT-s-OFDM QPSK       | Edge_1RB_Left   | 1_0   | 2560                      | 512000         | 19.30   | 18.09                     |
| High                     | 15           | 20             | DFT-s-OFDM QPSK       | Edge_Full_Right | 2_104 | 2560                      | 512000         | 19.30   | 18.22                     |
| High                     | 15           | 20             | DFT-s-OFDM QPSK       | Edge_Full_Left  | 2_0   | 2560                      | 512000         | 19.30   | 18.17                     |
| High                     | 15           | 20             | DFT-s-OFDM QPSK       | Inner_1RB_Right | 1_104 | 2560                      | 512000         | 19.30   | 18.17                     |
| High                     | 15           | 20             | DFT-s-OFDM QPSK       | Inner_1RB_Left  | 1_1   | 2560                      | 512000         | 19.30   | 18.10                     |
| High                     | 15           | 20             | DFT-s-OFDM QPSK       | Outer_Full      | 100_0 | 2560                      | 512000         | 19.30   | 18.37                     |
| High                     | 15           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 25_12 | 2565                      | 513000         | 19.30   | 18.14                     |
| High                     | 15           | 15             | DFT-s-OFDM QPSK       | Inner_Full      | 36_18 | 2562.5                    | 512500         | 19.30   | 18.34                     |

### N7(ANT11 DSI4)

| Test Freq<br>Description | 5G-n7        |                |                       |                 |       |                           |                | Power Results (dBm) |       |
|--------------------------|--------------|----------------|-----------------------|-----------------|-------|---------------------------|----------------|---------------------|-------|
|                          | SCS<br>(kHz) | NR BW<br>(MHz) | Modulation            | RB allocation   |       | NR<br>Test Freq.<br>(MHz) | NR<br>Test CH. | Tune up             | n7    |
| High                     | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6  | 2567.5                    | 513500         | 23.30               | 22.50 |
| Middle                   | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6  | 2535                      | 507000         | 23.30               | 22.42 |
| Low                      | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6  | 2502.5                    | 500500         | 23.30               | 22.47 |
| High                     | 15           | 20             | DFT-s-OFDM QPSK       | Inner_Full      | 50_25 | 2560                      | 512000         | 23.30               | 22.53 |
| Middle                   | 15           | 20             | DFT-s-OFDM QPSK       | Inner_Full      | 50_25 | 2535                      | 507000         | 23.30               | 22.45 |
| Low                      | 15           | 20             | DFT-s-OFDM QPSK       | Inner_Full      | 50_25 | 2510                      | 502000         | 23.30               | 22.49 |
| High                     | 15           | 20             | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 50_25 | 2560                      | 512000         | 23.30               | 22.56 |
| High                     | 15           | 20             | DFT-s-OFDM 16QAM      | Inner_Full      | 50_25 | 2560                      | 512000         | 23.30               | 22.46 |
| High                     | 15           | 20             | DFT-s-OFDM 64QAM      | Inner_Full      | 50_25 | 2560                      | 512000         | 22.00               | 20.95 |
| High                     | 15           | 20             | DFT-s-OFDM 256QAM     | Inner_Full      | 50_25 | 2560                      | 512000         | 20.00               | 18.99 |
| High                     | 15           | 20             | CP-OFDM QPSK          | Inner_Full      | 53_26 | 2560                      | 512000         | 23.30               | 22.00 |
| High                     | 15           | 20             | CP-OFDM 16QAM         | Inner_Full      | 53_26 | 2560                      | 512000         | 22.50               | 21.43 |
| High                     | 15           | 20             | CP-OFDM 64QAM         | Inner_Full      | 53_26 | 2560                      | 512000         | 21.00               | 19.94 |
| High                     | 15           | 20             | CP-OFDM 256QAM        | Inner_Full      | 53_26 | 2560                      | 512000         | 18.00               | 16.99 |
| High                     | 15           | 20             | DFT-s-OFDM PI/2 BPSK1 | Edge_1RB_Right  | 1_105 | 2560                      | 512000         | 23.30               | 22.33 |
| High                     | 15           | 20             | DFT-s-OFDM PI/2 BPSK1 | Edge_1RB_Left   | 1_0   | 2560                      | 512000         | 23.30               | 22.24 |
| High                     | 15           | 20             | DFT-s-OFDM PI/2 BPSK1 | Edge_Full_Right | 2_104 | 2560                      | 512000         | 23.30               | 22.38 |
| High                     | 15           | 20             | DFT-s-OFDM PI/2 BPSK1 | Edge_Full_Left  | 2_0   | 2560                      | 512000         | 23.30               | 22.33 |
| High                     | 15           | 20             | DFT-s-OFDM PI/2 BPSK1 | Inner_1RB_Right | 1_104 | 2560                      | 512000         | 23.30               | 22.39 |
| High                     | 15           | 20             | DFT-s-OFDM PI/2 BPSK1 | Inner_1RB_Left  | 1_1   | 2560                      | 512000         | 23.30               | 22.31 |
| High                     | 15           | 20             | DFT-s-OFDM PI/2 BPSK1 | Outer_Full      | 100_0 | 2560                      | 512000         | 23.30               | 22.51 |
| High                     | 15           | 10             | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 25_12 | 2565                      | 513000         | 23.30               | 22.41 |
| High                     | 15           | 15             | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 36_18 | 2562.5                    | 512500         | 23.30               | 22.55 |

**N7(ANT11 DSI8/9/10)**

| Test Freq<br>Description | 5G-n7        |                |                       |                 |       |                           |                | Tune up | Power Results (dBm)<br>n7 |
|--------------------------|--------------|----------------|-----------------------|-----------------|-------|---------------------------|----------------|---------|---------------------------|
|                          | SCS<br>(kHz) | NR BW<br>(MHz) | Modulation            | RB allocation   |       | NR<br>Test Freq.<br>(MHz) | NR<br>Test CH. |         |                           |
| High                     | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6  | 2567.5                    | 513500         | 20.30   | 19.20                     |
| Middle                   | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6  | 2535                      | 507000         | 20.30   | 19.09                     |
| Low                      | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6  | 2502.5                    | 500500         | 20.30   | 19.16                     |
| High                     | 15           | 20             | DFT-s-OFDM QPSK       | Inner_Full      | 50_25 | 2560                      | 512000         | 20.30   | 19.21                     |
| Middle                   | 15           | 20             | DFT-s-OFDM QPSK       | Inner_Full      | 50_25 | 2535                      | 507000         | 20.30   | 19.10                     |
| Low                      | 15           | 20             | DFT-s-OFDM QPSK       | Inner_Full      | 50_25 | 2510                      | 502000         | 20.30   | 19.15                     |
| High                     | 15           | 20             | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 50_25 | 2560                      | 512000         | 20.30   | 19.23                     |
| High                     | 15           | 20             | DFT-s-OFDM 16QAM      | Inner_Full      | 50_25 | 2560                      | 512000         | 20.30   | 19.22                     |
| High                     | 15           | 20             | DFT-s-OFDM 64QAM      | Inner_Full      | 50_25 | 2560                      | 512000         | 20.30   | 19.22                     |
| High                     | 15           | 20             | DFT-s-OFDM 256QAM     | Inner_Full      | 50_25 | 2560                      | 512000         | 19.80   | 18.72                     |
| High                     | 15           | 20             | CP-OFDM QPSK          | Inner_Full      | 53_26 | 2560                      | 512000         | 20.30   | 19.25                     |
| High                     | 15           | 20             | CP-OFDM 16QAM         | Inner_Full      | 53_26 | 2560                      | 512000         | 20.30   | 19.22                     |
| High                     | 15           | 20             | CP-OFDM 64QAM         | Inner_Full      | 53_26 | 2560                      | 512000         | 20.30   | 19.21                     |
| High                     | 15           | 20             | CP-OFDM 256QAM        | Inner_Full      | 53_26 | 2560                      | 512000         | 17.80   | 16.80                     |
| High                     | 15           | 20             | CP-OFDM QPSK          | Edge_1RB_Right  | 1_105 | 2560                      | 512000         | 20.30   | 19.06                     |
| High                     | 15           | 20             | CP-OFDM QPSK          | Edge_1RB_Left   | 1_0   | 2560                      | 512000         | 20.00   | 18.98                     |
| High                     | 15           | 20             | CP-OFDM QPSK          | Edge_Full_Right | 2_104 | 2560                      | 512000         | 20.30   | 19.10                     |
| High                     | 15           | 20             | CP-OFDM QPSK          | Edge_Full_Left  | 2_0   | 2560                      | 512000         | 20.30   | 19.05                     |
| High                     | 15           | 20             | CP-OFDM QPSK          | Inner_1RB_Right | 1_104 | 2560                      | 512000         | 20.30   | 19.05                     |
| High                     | 15           | 20             | CP-OFDM QPSK          | Inner_1RB_Left  | 1_1   | 2560                      | 512000         | 20.30   | 18.99                     |
| High                     | 15           | 20             | CP-OFDM QPSK          | Outer_Full      | 106_0 | 2560                      | 512000         | 20.30   | 19.24                     |
| High                     | 15           | 10             | CP-OFDM QPSK          | Inner_Full      | 25_12 | 2565                      | 513000         | 20.30   | 19.03                     |
| High                     | 15           | 15             | CP-OFDM QPSK          | Inner_Full      | 36_18 | 2562.5                    | 512500         | 20.30   | 19.21                     |

### N7(ANT13 DSI2/3)

| Test Freq<br>Description | 5G-n7        |                |                       |                 |       |                           |                | Tune up | Power Results (dBm) |
|--------------------------|--------------|----------------|-----------------------|-----------------|-------|---------------------------|----------------|---------|---------------------|
|                          | SCS<br>(kHz) | NR BW<br>(MHz) | Modulation            | RB allocation   |       | NR<br>Test Freq.<br>(MHz) | NR<br>Test CH. |         | n7                  |
| High                     | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6  | 2567.5                    | 513500         | 16.80   | 15.75               |
| Middle                   | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6  | 2535                      | 507000         | 16.80   | 15.40               |
| Low                      | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6  | 2502.5                    | 500500         | 16.80   | 15.52               |
| High                     | 15           | 20             | DFT-s-OFDM QPSK       | Inner_Full      | 50_25 | 2560                      | 512000         | 16.80   | 15.76               |
| Middle                   | 15           | 20             | DFT-s-OFDM QPSK       | Inner_Full      | 50_25 | 2535                      | 507000         | 16.80   | 15.44               |
| Low                      | 15           | 20             | DFT-s-OFDM QPSK       | Inner_Full      | 50_25 | 2510                      | 502000         | 16.80   | 15.55               |
| High                     | 15           | 20             | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 50_25 | 2560                      | 512000         | 16.80   | 15.68               |
| High                     | 15           | 20             | DFT-s-OFDM 16QAM      | Inner_Full      | 50_25 | 2560                      | 512000         | 16.80   | 15.73               |
| High                     | 15           | 20             | DFT-s-OFDM 64QAM      | Inner_Full      | 50_25 | 2560                      | 512000         | 16.80   | 15.64               |
| High                     | 15           | 20             | DFT-s-OFDM 256QAM     | Inner_Full      | 50_25 | 2560                      | 512000         | 16.80   | 15.73               |
| High                     | 15           | 20             | CP-OFDM QPSK          | Inner_Full      | 53_26 | 2560                      | 512000         | 16.80   | 15.73               |
| High                     | 15           | 20             | CP-OFDM 16QAM         | Inner_Full      | 53_26 | 2560                      | 512000         | 16.80   | 15.69               |
| High                     | 15           | 20             | CP-OFDM 64QAM         | Inner_Full      | 53_26 | 2560                      | 512000         | 16.80   | 15.68               |
| High                     | 15           | 20             | CP-OFDM 256QAM        | Inner_Full      | 53_26 | 2560                      | 512000         | 16.80   | 15.71               |
| High                     | 15           | 20             | DFT-s-OFDM QPSK       | Edge_1RB_Right  | 1_105 | 2560                      | 512000         | 16.80   | 15.56               |
| High                     | 15           | 20             | DFT-s-OFDM QPSK       | Edge_1RB_Left   | 1_0   | 2560                      | 512000         | 16.80   | 15.44               |
| High                     | 15           | 20             | DFT-s-OFDM QPSK       | Edge_Full_Right | 2_104 | 2560                      | 512000         | 16.80   | 15.66               |
| High                     | 15           | 20             | DFT-s-OFDM QPSK       | Edge_Full_Left  | 2_0   | 2560                      | 512000         | 16.80   | 15.46               |
| High                     | 15           | 20             | DFT-s-OFDM QPSK       | Inner_1RB_Right | 1_104 | 2560                      | 512000         | 16.80   | 15.58               |
| High                     | 15           | 20             | DFT-s-OFDM QPSK       | Inner_1RB_Left  | 1_1   | 2560                      | 512000         | 16.80   | 15.47               |
| High                     | 15           | 20             | DFT-s-OFDM QPSK       | Outer_Full      | 100_0 | 2560                      | 512000         | 16.80   | 15.72               |
| High                     | 15           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 25_12 | 2565                      | 513000         | 16.80   | 15.60               |
| High                     | 15           | 15             | DFT-s-OFDM QPSK       | Inner_Full      | 36_18 | 2562.5                    | 512500         | 16.80   | 15.69               |

### N7(ANT13 DSI4)

| Test Freq<br>Description | 5G-n7        |                |                       |                 |       |                           |                | Power Results (dBm) |       |
|--------------------------|--------------|----------------|-----------------------|-----------------|-------|---------------------------|----------------|---------------------|-------|
|                          | SCS<br>(kHz) | NR BW<br>(MHz) | Modulation            | RB allocation   |       | NR<br>Test Freq.<br>(MHz) | NR<br>Test CH. | Tune up             | n7    |
| High                     | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6  | 2567.5                    | 513500         | 22.80               | 21.76 |
| Middle                   | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6  | 2535                      | 507000         | 22.80               | 21.55 |
| Low                      | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6  | 2502.5                    | 500500         | 22.80               | 21.62 |
| High                     | 15           | 20             | DFT-s-OFDM QPSK       | Inner_Full      | 50_25 | 2560                      | 512000         | 22.80               | 21.78 |
| Middle                   | 15           | 20             | DFT-s-OFDM QPSK       | Inner_Full      | 50_25 | 2535                      | 507000         | 22.80               | 21.59 |
| Low                      | 15           | 20             | DFT-s-OFDM QPSK       | Inner_Full      | 50_25 | 2510                      | 502000         | 22.80               | 21.65 |
| High                     | 15           | 20             | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 50_25 | 2560                      | 512000         | 22.80               | 21.80 |
| High                     | 15           | 20             | DFT-s-OFDM 16QAM      | Inner_Full      | 50_25 | 2560                      | 512000         | 22.80               | 21.72 |
| High                     | 15           | 20             | DFT-s-OFDM 64QAM      | Inner_Full      | 50_25 | 2560                      | 512000         | 21.50               | 20.25 |
| High                     | 15           | 20             | DFT-s-OFDM 256QAM     | Inner_Full      | 50_25 | 2560                      | 512000         | 19.50               | 18.21 |
| High                     | 15           | 20             | CP-OFDM QPSK          | Inner_Full      | 53_26 | 2560                      | 512000         | 22.50               | 21.27 |
| High                     | 15           | 20             | CP-OFDM 16QAM         | Inner_Full      | 53_26 | 2560                      | 512000         | 21.80               | 20.70 |
| High                     | 15           | 20             | CP-OFDM 64QAM         | Inner_Full      | 53_26 | 2560                      | 512000         | 20.50               | 19.20 |
| High                     | 15           | 20             | CP-OFDM 256QAM        | Inner_Full      | 53_26 | 2560                      | 512000         | 17.50               | 16.25 |
| High                     | 15           | 20             | DFT-s-OFDM PI/2 BPSK1 | Edge_1RB_Right  | 1_105 | 2560                      | 512000         | 22.80               | 21.67 |
| High                     | 15           | 20             | DFT-s-OFDM PI/2 BPSK1 | Edge_1RB_Left   | 1_0   | 2560                      | 512000         | 22.80               | 21.43 |
| High                     | 15           | 20             | DFT-s-OFDM PI/2 BPSK1 | Edge_Full_Right | 2_104 | 2560                      | 512000         | 22.80               | 21.69 |
| High                     | 15           | 20             | DFT-s-OFDM PI/2 BPSK1 | Edge_Full_Left  | 2_0   | 2560                      | 512000         | 22.80               | 21.55 |
| High                     | 15           | 20             | DFT-s-OFDM PI/2 BPSK1 | Inner_1RB_Right | 1_104 | 2560                      | 512000         | 22.80               | 21.68 |
| High                     | 15           | 20             | DFT-s-OFDM PI/2 BPSK1 | Inner_1RB_Left  | 1_1   | 2560                      | 512000         | 22.80               | 21.52 |
| High                     | 15           | 20             | DFT-s-OFDM PI/2 BPSK1 | Outer_Full      | 100_0 | 2560                      | 512000         | 22.80               | 21.84 |
| High                     | 15           | 20             | CP-OFDM QPSK          | Outer_Full      | 106_0 | 2560                      | 512000         | 22.80               | 21.30 |
| High                     | 15           | 10             | DFT-s-OFDM PI/2 BPSK1 | Outer_Full      | 50_0  | 2565                      | 513000         | 22.80               | 21.60 |
| High                     | 15           | 15             | DFT-s-OFDM PI/2 BPSK1 | Outer_Full      | 75_0  | 2562.5                    | 512500         | 22.80               | 21.75 |

**N7(ANT13 DSI8/9/10)**

| Test Freq<br>Description | 5G-n7        |                |                       |                 |       |                           |                | Power Results (dBm) |       |
|--------------------------|--------------|----------------|-----------------------|-----------------|-------|---------------------------|----------------|---------------------|-------|
|                          | SCS<br>(kHz) | NR BW<br>(MHz) | Modulation            | RB allocation   |       | NR<br>Test Freq.<br>(MHz) | NR<br>Test CH. | Tune up             | n7    |
| High                     | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6  | 2567.5                    | 513500         | 18.00               | 17.12 |
| Middle                   | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6  | 2535                      | 507000         | 18.00               | 16.99 |
| Low                      | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6  | 2502.5                    | 500500         | 18.00               | 17.07 |
| High                     | 15           | 20             | DFT-s-OFDM QPSK       | Inner_Full      | 50_25 | 2560                      | 512000         | 18.00               | 17.13 |
| Middle                   | 15           | 20             | DFT-s-OFDM QPSK       | Inner_Full      | 50_25 | 2535                      | 507000         | 18.00               | 16.93 |
| Low                      | 15           | 20             | DFT-s-OFDM QPSK       | Inner_Full      | 50_25 | 2510                      | 502000         | 18.00               | 17.00 |
| High                     | 15           | 20             | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 50_25 | 2560                      | 512000         | 18.00               | 17.10 |
| High                     | 15           | 20             | DFT-s-OFDM 16QAM      | Inner_Full      | 50_25 | 2560                      | 512000         | 18.00               | 17.11 |
| High                     | 15           | 20             | DFT-s-OFDM 64QAM      | Inner_Full      | 50_25 | 2560                      | 512000         | 18.00               | 17.11 |
| High                     | 15           | 20             | DFT-s-OFDM 256QAM     | Inner_Full      | 50_25 | 2560                      | 512000         | 18.00               | 17.11 |
| High                     | 15           | 20             | CP-OFDM QPSK          | Inner_Full      | 53_26 | 2560                      | 512000         | 18.00               | 17.15 |
| High                     | 15           | 20             | CP-OFDM 16QAM         | Inner_Full      | 53_26 | 2560                      | 512000         | 18.00               | 17.11 |
| High                     | 15           | 20             | CP-OFDM 64QAM         | Inner_Full      | 53_26 | 2560                      | 512000         | 18.00               | 17.10 |
| High                     | 15           | 20             | CP-OFDM 256QAM        | Inner_Full      | 53_26 | 2560                      | 512000         | 17.30               | 16.21 |
| High                     | 15           | 20             | CP-OFDM QPSK          | Edge_1RB_Right  | 1_105 | 2560                      | 512000         | 18.00               | 16.93 |
| High                     | 15           | 20             | CP-OFDM QPSK          | Edge_1RB_Left   | 1_0   | 2560                      | 512000         | 18.00               | 16.83 |
| High                     | 15           | 20             | CP-OFDM QPSK          | Edge_Full_Right | 2_104 | 2560                      | 512000         | 18.00               | 16.97 |
| High                     | 15           | 20             | CP-OFDM QPSK          | Edge_Full_Left  | 2_0   | 2560                      | 512000         | 18.00               | 16.92 |
| High                     | 15           | 20             | CP-OFDM QPSK          | Inner_1RB_Right | 1_104 | 2560                      | 512000         | 18.00               | 16.92 |
| High                     | 15           | 20             | CP-OFDM QPSK          | Inner_1RB_Left  | 1_1   | 2560                      | 512000         | 18.00               | 16.85 |
| High                     | 15           | 20             | CP-OFDM QPSK          | Outer_Full      | 100_0 | 2560                      | 512000         | 18.00               | 17.14 |
| High                     | 15           | 10             | CP-OFDM QPSK          | Outer_Full      | 50_0  | 2565                      | 513000         | 18.00               | 16.89 |
| High                     | 15           | 15             | CP-OFDM QPSK          | Outer_Full      | 75_0  | 2562.5                    | 512500         | 18.00               | 17.10 |

### N66(ANT11 DSI2/3)

| Test Freq<br>Description | 5G-n66       |                |                       |                 |        |                           |                | Power Results (dBm) |       |
|--------------------------|--------------|----------------|-----------------------|-----------------|--------|---------------------------|----------------|---------------------|-------|
|                          | SCS<br>(kHz) | NR BW<br>(MHz) | Modulation            | RB allocation   |        | NR<br>Test Freq.<br>(MHz) | NR<br>Test CH. | Tune up             | n66   |
| High                     | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 1777.5                    | 355500         | 20.00               | 19.02 |
| Middle                   | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 1745                      | 349000         | 20.00               | 18.98 |
| Low                      | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 1712.5                    | 342500         | 20.00               | 18.94 |
| High                     | 15           | 40             | DFT-s-OFDM QPSK       | Inner_Full      | 108_54 | 1760                      | 352000         | 20.00               | 18.97 |
| Middle                   | 15           | 40             | DFT-s-OFDM QPSK       | Inner_Full      | 108_54 | 1745                      | 349000         | 20.00               | 18.98 |
| Low                      | 15           | 40             | DFT-s-OFDM QPSK       | Inner_Full      | 108_54 | 1730                      | 346000         | 20.00               | 19.08 |
| Low                      | 15           | 40             | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 108_54 | 1730                      | 346000         | 20.00               | 19.07 |
| Low                      | 15           | 40             | DFT-s-OFDM 16QAM      | Inner_Full      | 108_54 | 1730                      | 346000         | 20.00               | 19.07 |
| Low                      | 15           | 40             | DFT-s-OFDM 64QAM      | Inner_Full      | 108_54 | 1730                      | 346000         | 20.00               | 19.07 |
| Low                      | 15           | 40             | DFT-s-OFDM 256QAM     | Inner_Full      | 108_54 | 1730                      | 346000         | 19.00               | 18.06 |
| Low                      | 15           | 40             | CP-OFDM QPSK          | Inner_Full      | 108_54 | 1730                      | 346000         | 20.00               | 19.06 |
| Low                      | 15           | 40             | CP-OFDM 16QAM         | Inner_Full      | 108_54 | 1730                      | 346000         | 20.00               | 19.04 |
| Low                      | 15           | 40             | CP-OFDM 64QAM         | Inner_Full      | 108_54 | 1730                      | 346000         | 20.00               | 19.07 |
| Low                      | 15           | 40             | CP-OFDM 256QAM        | Inner_Full      | 108_54 | 1730                      | 346000         | 17.00               | 16.05 |
| Low                      | 15           | 40             | DFT-s-OFDM QPSK       | Edge_1RB_Right  | 1_215  | 1730                      | 346000         | 19.50               | 18.43 |
| Low                      | 15           | 40             | DFT-s-OFDM QPSK       | Edge_1RB_Left   | 1_0    | 1730                      | 346000         | 19.50               | 18.34 |
| Low                      | 15           | 40             | DFT-s-OFDM QPSK       | Edge_Full_Right | 2_214  | 1730                      | 346000         | 19.50               | 18.40 |
| Low                      | 15           | 40             | DFT-s-OFDM QPSK       | Edge_Full_Left  | 2_0    | 1730                      | 346000         | 19.50               | 18.36 |
| Low                      | 15           | 40             | DFT-s-OFDM QPSK       | Inner_1RB_Right | 1_214  | 1730                      | 346000         | 19.50               | 18.44 |
| Low                      | 15           | 40             | DFT-s-OFDM QPSK       | Inner_1RB_Left  | 1_1    | 1730                      | 346000         | 19.50               | 18.31 |
| Low                      | 15           | 40             | DFT-s-OFDM QPSK       | Outer_Full      | 216_0  | 1730                      | 346000         | 20.00               | 19.05 |
| Low                      | 15           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 25_12  | 1715                      | 343000         | 20.00               | 18.77 |
| Low                      | 15           | 15             | DFT-s-OFDM QPSK       | Inner_Full      | 36_18  | 1717.5                    | 343500         | 20.00               | 18.94 |
| Low                      | 15           | 20             | DFT-s-OFDM QPSK       | Inner_Full      | 50_25  | 1720                      | 344000         | 20.00               | 19.01 |
| Low                      | 15           | 25             | DFT-s-OFDM QPSK       | Inner_Full      | 64_32  | 1722.5                    | 344500         | 20.00               | 19.06 |
| Low                      | 15           | 30             | DFT-s-OFDM QPSK       | Inner_Full      | 80_40  | 1725                      | 345000         | 20.00               | 19.04 |

### N66(ANT11 DSI4)

| Test Freq<br>Description | 5G-n66       |                |                       |                 |        |                           |                | Power Results (dBm) |       |
|--------------------------|--------------|----------------|-----------------------|-----------------|--------|---------------------------|----------------|---------------------|-------|
|                          | SCS<br>(kHz) | NR BW<br>(MHz) | Modulation            | RB allocation   |        | NR<br>Test Freq.<br>(MHz) | NR<br>Test CH. | Tune up             | n66   |
| High                     | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 1777.5                    | 355500         | 23.50               | 22.43 |
| Middle                   | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 1745                      | 349000         | 23.50               | 22.40 |
| Low                      | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 1712.5                    | 342500         | 23.50               | 22.37 |
| High                     | 15           | 40             | DFT-s-OFDM QPSK       | Inner_Full      | 108_54 | 1760                      | 352000         | 23.50               | 22.41 |
| Middle                   | 15           | 40             | DFT-s-OFDM QPSK       | Inner_Full      | 108_54 | 1745                      | 349000         | 23.50               | 22.42 |
| Low                      | 15           | 40             | DFT-s-OFDM QPSK       | Inner_Full      | 108_54 | 1730                      | 346000         | 23.50               | 22.49 |
| Low                      | 15           | 40             | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 108_54 | 1730                      | 346000         | 23.50               | 22.47 |
| Low                      | 15           | 40             | DFT-s-OFDM 16QAM      | Inner_Full      | 108_54 | 1730                      | 346000         | 22.50               | 21.46 |
| Low                      | 15           | 40             | DFT-s-OFDM 64QAM      | Inner_Full      | 108_54 | 1730                      | 346000         | 21.00               | 20.13 |
| Low                      | 15           | 40             | DFT-s-OFDM 256QAM     | Inner_Full      | 108_54 | 1730                      | 346000         | 19.00               | 18.03 |
| Low                      | 15           | 40             | CP-OFDM QPSK          | Inner_Full      | 108_54 | 1730                      | 346000         | 22.00               | 20.93 |
| Low                      | 15           | 40             | CP-OFDM 16QAM         | Inner_Full      | 108_54 | 1730                      | 346000         | 21.50               | 20.59 |
| Low                      | 15           | 40             | CP-OFDM 64QAM         | Inner_Full      | 108_54 | 1730                      | 346000         | 20.00               | 19.06 |
| Low                      | 15           | 40             | CP-OFDM 256QAM        | Inner_Full      | 108_54 | 1730                      | 346000         | 17.00               | 16.04 |
| Low                      | 15           | 40             | DFT-s-OFDM QPSK       | Edge_1RB_Right  | 1_215  | 1730                      | 346000         | 22.00               | 20.73 |
| Low                      | 15           | 40             | DFT-s-OFDM QPSK       | Edge_1RB_Left   | 1_0    | 1730                      | 346000         | 22.00               | 20.67 |
| Low                      | 15           | 40             | DFT-s-OFDM QPSK       | Edge_Full_Right | 2_214  | 1730                      | 346000         | 22.00               | 20.78 |
| Low                      | 15           | 40             | DFT-s-OFDM QPSK       | Edge_Full_Left  | 2_0    | 1730                      | 346000         | 22.00               | 20.74 |
| Low                      | 15           | 40             | DFT-s-OFDM QPSK       | Inner_1RB_Right | 1_214  | 1730                      | 346000         | 23.00               | 21.76 |
| Low                      | 15           | 40             | DFT-s-OFDM QPSK       | Inner_1RB_Left  | 1_1    | 1730                      | 346000         | 23.00               | 21.72 |
| Low                      | 15           | 40             | DFT-s-OFDM QPSK       | Outer_Full      | 216_0  | 1730                      | 346000         | 23.00               | 21.43 |
| Low                      | 15           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 25_12  | 1715                      | 343000         | 23.00               | 22.09 |
| Low                      | 15           | 15             | DFT-s-OFDM QPSK       | Inner_Full      | 36_18  | 1717.5                    | 343500         | 23.50               | 22.30 |
| Low                      | 15           | 20             | DFT-s-OFDM QPSK       | Inner_Full      | 50_25  | 1720                      | 344000         | 23.50               | 22.35 |
| Low                      | 15           | 25             | DFT-s-OFDM QPSK       | Inner_Full      | 64_32  | 1722.5                    | 344500         | 23.50               | 22.42 |
| Low                      | 15           | 30             | DFT-s-OFDM QPSK       | Inner_Full      | 80_40  | 1725                      | 345000         | 23.50               | 22.42 |

### N66(ANT11 DSI8/9/10)

| Test Freq<br>Description | 5G-n66       |                |                       |                 |        |                           |                | Power Results (dBm) |       |
|--------------------------|--------------|----------------|-----------------------|-----------------|--------|---------------------------|----------------|---------------------|-------|
|                          | SCS<br>(kHz) | NR BW<br>(MHz) | Modulation            | RB allocation   |        | NR<br>Test Freq.<br>(MHz) | NR<br>Test CH. | Tune up             | n66   |
| High                     | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 1777.5                    | 355500         | 21.50               | 20.25 |
| Middle                   | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 1745                      | 349000         | 21.50               | 20.21 |
| Low                      | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 1712.5                    | 342500         | 21.50               | 20.17 |
| High                     | 15           | 40             | DFT-s-OFDM QPSK       | Inner_Full      | 108_54 | 1760                      | 352000         | 21.50               | 20.22 |
| Middle                   | 15           | 40             | DFT-s-OFDM QPSK       | Inner_Full      | 108_54 | 1745                      | 349000         | 21.50               | 20.23 |
| Low                      | 15           | 40             | DFT-s-OFDM QPSK       | Inner_Full      | 108_54 | 1730                      | 346000         | 21.50               | 20.32 |
| Low                      | 15           | 40             | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 108_54 | 1730                      | 346000         | 21.50               | 20.27 |
| Low                      | 15           | 40             | DFT-s-OFDM 16QAM      | Inner_Full      | 108_54 | 1730                      | 346000         | 20.00               | 18.99 |
| Low                      | 15           | 40             | DFT-s-OFDM 64QAM      | Inner_Full      | 108_54 | 1730                      | 346000         | 18.50               | 17.32 |
| Low                      | 15           | 40             | DFT-s-OFDM 256QAM     | Inner_Full      | 108_54 | 1730                      | 346000         | 15.50               | 14.66 |
| Low                      | 15           | 40             | CP-OFDM QPSK          | Inner_Full      | 108_54 | 1730                      | 346000         | 19.50               | 18.33 |
| Low                      | 15           | 40             | CP-OFDM 16QAM         | Inner_Full      | 108_54 | 1730                      | 346000         | 19.00               | 17.90 |
| Low                      | 15           | 40             | CP-OFDM 64QAM         | Inner_Full      | 108_54 | 1730                      | 346000         | 17.00               | 15.96 |
| Low                      | 15           | 40             | CP-OFDM 256QAM        | Inner_Full      | 108_54 | 1730                      | 346000         | 13.00               | 12.15 |
| Low                      | 15           | 40             | DFT-s-OFDM QPSK       | Edge_1RB_Right  | 1_215  | 1730                      | 346000         | 19.00               | 18.08 |
| Low                      | 15           | 40             | DFT-s-OFDM QPSK       | Edge_1RB_Left   | 1_0    | 1730                      | 346000         | 19.00               | 18.00 |
| Low                      | 15           | 40             | DFT-s-OFDM QPSK       | Edge_Full_Right | 2_214  | 1730                      | 346000         | 19.00               | 18.14 |
| Low                      | 15           | 40             | DFT-s-OFDM QPSK       | Edge_Full_Left  | 2_0    | 1730                      | 346000         | 19.00               | 18.09 |
| Low                      | 15           | 40             | DFT-s-OFDM QPSK       | Inner_1RB_Right | 1_214  | 1730                      | 346000         | 20.00               | 19.37 |
| Low                      | 15           | 40             | DFT-s-OFDM QPSK       | Inner_1RB_Left  | 1_1    | 1730                      | 346000         | 20.00               | 19.33 |
| Low                      | 15           | 40             | DFT-s-OFDM QPSK       | Outer_Full      | 216_0  | 1730                      | 346000         | 20.00               | 18.96 |
| Low                      | 15           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 25_12  | 1715                      | 343000         | 21.00               | 20.01 |
| Low                      | 15           | 15             | DFT-s-OFDM QPSK       | Inner_Full      | 36_18  | 1717.5                    | 343500         | 21.00               | 20.06 |
| Low                      | 15           | 20             | DFT-s-OFDM QPSK       | Inner_Full      | 50_25  | 1720                      | 344000         | 21.00               | 20.13 |
| Low                      | 15           | 25             | DFT-s-OFDM QPSK       | Inner_Full      | 64_32  | 1722.5                    | 344500         | 21.00               | 20.21 |
| Low                      | 15           | 30             | DFT-s-OFDM QPSK       | Inner_Full      | 80_40  | 1725                      | 345000         | 21.00               | 20.21 |

### N66(ANT13 DSI2/3)

| Test Freq<br>Description | 5G-n66       |                |                       |                 |        |                           |                | Power Results (dBm) |       |
|--------------------------|--------------|----------------|-----------------------|-----------------|--------|---------------------------|----------------|---------------------|-------|
|                          | SCS<br>(kHz) | NR BW<br>(MHz) | Modulation            | RB allocation   |        | NR<br>Test Freq.<br>(MHz) | NR<br>Test CH. | Tune up             | n66   |
| High                     | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 1777.5                    | 355500         | 15.00               | 13.77 |
| Middle                   | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 1745                      | 349000         | 15.00               | 13.94 |
| Low                      | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 1712.5                    | 342500         | 15.00               | 13.90 |
| High                     | 15           | 40             | DFT-s-OFDM QPSK       | Inner_Full      | 108_54 | 1760                      | 352000         | 15.00               | 13.92 |
| Middle                   | 15           | 40             | DFT-s-OFDM QPSK       | Inner_Full      | 108_54 | 1745                      | 349000         | 15.00               | 14.01 |
| Low                      | 15           | 40             | DFT-s-OFDM QPSK       | Inner_Full      | 108_54 | 1730                      | 346000         | 15.00               | 14.07 |
| Low                      | 15           | 40             | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 108_54 | 1730                      | 346000         | 15.00               | 14.04 |
| Low                      | 15           | 40             | DFT-s-OFDM 16QAM      | Inner_Full      | 108_54 | 1730                      | 346000         | 15.00               | 14.09 |
| Low                      | 15           | 40             | DFT-s-OFDM 64QAM      | Inner_Full      | 108_54 | 1730                      | 346000         | 15.00               | 14.07 |
| Low                      | 15           | 40             | DFT-s-OFDM 256QAM     | Inner_Full      | 108_54 | 1730                      | 346000         | 15.00               | 14.05 |
| Low                      | 15           | 40             | CP-OFDM QPSK          | Inner_Full      | 108_54 | 1730                      | 346000         | 15.00               | 14.07 |
| Low                      | 15           | 40             | CP-OFDM 16QAM         | Inner_Full      | 108_54 | 1730                      | 346000         | 15.00               | 14.07 |
| Low                      | 15           | 40             | CP-OFDM 64QAM         | Inner_Full      | 108_54 | 1730                      | 346000         | 15.00               | 14.08 |
| Low                      | 15           | 40             | CP-OFDM 256QAM        | Inner_Full      | 108_54 | 1730                      | 346000         | 15.00               | 14.07 |
| Low                      | 15           | 40             | DFT-s-OFDM QPSK       | Edge_1RB_Right  | 1_215  | 1730                      | 346000         | 14.50               | 13.29 |
| Low                      | 15           | 40             | DFT-s-OFDM QPSK       | Edge_1RB_Left   | 1_0    | 1730                      | 346000         | 14.50               | 13.24 |
| Low                      | 15           | 40             | DFT-s-OFDM QPSK       | Edge_Full_Right | 2_214  | 1730                      | 346000         | 14.50               | 13.48 |
| Low                      | 15           | 40             | DFT-s-OFDM QPSK       | Edge_Full_Left  | 2_0    | 1730                      | 346000         | 14.50               | 13.45 |
| Low                      | 15           | 40             | DFT-s-OFDM QPSK       | Inner_1RB_Right | 1_214  | 1730                      | 346000         | 14.50               | 13.33 |
| Low                      | 15           | 40             | DFT-s-OFDM QPSK       | Inner_1RB_Left  | 1_1    | 1730                      | 346000         | 14.50               | 13.24 |
| Low                      | 15           | 40             | DFT-s-OFDM QPSK       | Outer_Full      | 216_0  | 1730                      | 346000         | 15.00               | 13.96 |
| Low                      | 15           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 25_12  | 1715                      | 343000         | 15.00               | 13.93 |
| Low                      | 15           | 15             | DFT-s-OFDM QPSK       | Inner_Full      | 36_18  | 1717.5                    | 343500         | 15.00               | 13.78 |
| Low                      | 15           | 20             | DFT-s-OFDM QPSK       | Inner_Full      | 50_25  | 1720                      | 344000         | 15.00               | 13.85 |
| Low                      | 15           | 25             | DFT-s-OFDM QPSK       | Inner_Full      | 64_32  | 1722.5                    | 344500         | 15.00               | 13.89 |
| Low                      | 15           | 30             | DFT-s-OFDM QPSK       | Inner_Full      | 80_40  | 1725                      | 345000         | 15.00               | 13.92 |

### N66(ANT13 DSI4)

| Test Freq<br>Description | 5G-n66       |                |                       |                 |        |                           |                | Power Results (dBm) |       |
|--------------------------|--------------|----------------|-----------------------|-----------------|--------|---------------------------|----------------|---------------------|-------|
|                          | SCS<br>(kHz) | NR BW<br>(MHz) | Modulation            | RB allocation   |        | NR<br>Test Freq.<br>(MHz) | NR<br>Test CH. | Tune up             | n66   |
| High                     | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 1777.5                    | 355500         | 22.50               | 21.78 |
| Middle                   | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 1745                      | 349000         | 22.50               | 21.49 |
| Low                      | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 1712.5                    | 342500         | 22.50               | 21.31 |
| High                     | 15           | 40             | DFT-s-OFDM QPSK       | Inner_Full      | 108_54 | 1760                      | 352000         | 22.50               | 21.60 |
| Middle                   | 15           | 40             | DFT-s-OFDM QPSK       | Inner_Full      | 108_54 | 1745                      | 349000         | 22.50               | 21.56 |
| Low                      | 15           | 40             | DFT-s-OFDM QPSK       | Inner_Full      | 108_54 | 1730                      | 346000         | 22.50               | 21.49 |
| High                     | 15           | 5              | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 12_6   | 1777.5                    | 355500         | 22.50               | 21.84 |
| High                     | 15           | 5              | DFT-s-OFDM 16QAM      | Inner_Full      | 12_6   | 1777.5                    | 355500         | 21.50               | 20.72 |
| High                     | 15           | 5              | DFT-s-OFDM 64QAM      | Inner_Full      | 12_6   | 1777.5                    | 355500         | 20.50               | 19.38 |
| High                     | 15           | 5              | DFT-s-OFDM 256QAM     | Inner_Full      | 12_6   | 1777.5                    | 355500         | 18.50               | 17.37 |
| High                     | 15           | 5              | CP-OFDM QPSK          | Inner_Full      | 13_6   | 1777.5                    | 355500         | 21.00               | 20.21 |
| High                     | 15           | 5              | CP-OFDM 16QAM         | Inner_Full      | 13_6   | 1777.5                    | 355500         | 20.50               | 19.78 |
| High                     | 15           | 5              | CP-OFDM 64QAM         | Inner_Full      | 13_6   | 1777.5                    | 355500         | 19.50               | 18.37 |
| High                     | 15           | 5              | CP-OFDM 256QAM        | Inner_Full      | 13_6   | 1777.5                    | 355500         | 16.50               | 15.26 |
| High                     | 15           | 5              | DFT-s-OFDM PI/2 BPSK1 | Edge_1RB_Right  | 1_24   | 1777.5                    | 355500         | 22.50               | 21.24 |
| High                     | 15           | 5              | DFT-s-OFDM PI/2 BPSK1 | Edge_1RB_Left   | 1_0    | 1777.5                    | 355500         | 22.50               | 21.14 |
| High                     | 15           | 5              | DFT-s-OFDM PI/2 BPSK1 | Edge_Full_Right | 2_23   | 1777.5                    | 355500         | 22.50               | 21.22 |
| High                     | 15           | 5              | DFT-s-OFDM PI/2 BPSK1 | Edge_Full_Left  | 2_0    | 1777.5                    | 355500         | 22.50               | 21.20 |
| High                     | 15           | 5              | DFT-s-OFDM PI/2 BPSK1 | Inner_1RB_Right | 1_23   | 1777.5                    | 355500         | 22.50               | 21.77 |
| High                     | 15           | 5              | DFT-s-OFDM PI/2 BPSK1 | Inner_1RB_Left  | 1_1    | 1777.5                    | 355500         | 22.50               | 21.70 |
| High                     | 15           | 5              | DFT-s-OFDM PI/2 BPSK1 | Outer_Full      | 25_0   | 1777.5                    | 355500         | 22.50               | 21.24 |
| High                     | 15           | 10             | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 25_12  | 1775                      | 355000         | 22.50               | 21.56 |
| High                     | 15           | 15             | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 36_18  | 1772.5                    | 354500         | 22.50               | 21.74 |
| High                     | 15           | 20             | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 50_25  | 1770                      | 354000         | 22.50               | 21.78 |
| High                     | 15           | 25             | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 64_32  | 1767.5                    | 353500         | 22.50               | 21.73 |
| High                     | 15           | 30             | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 80_40  | 1765                      | 35300          | 22.50               | 21.69 |

### N66(ANT13 DSI8/9/10)

| Test Freq<br>Description | 5G-n66       |                |                       |                 |        |                           |                | Power Results (dBm) |       |
|--------------------------|--------------|----------------|-----------------------|-----------------|--------|---------------------------|----------------|---------------------|-------|
|                          | SCS<br>(kHz) | NR BW<br>(MHz) | Modulation            | RB allocation   |        | NR<br>Test Freq.<br>(MHz) | NR<br>Test CH. | Tune up             | n66   |
| High                     | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 1777.5                    | 355500         | 17.50               | 16.84 |
| Middle                   | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 1745                      | 349000         | 17.50               | 16.39 |
| Low                      | 15           | 5              | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 1712.5                    | 342500         | 17.50               | 16.11 |
| High                     | 15           | 40             | DFT-s-OFDM QPSK       | Inner_Full      | 108_54 | 1760                      | 352000         | 17.50               | 16.75 |
| Middle                   | 15           | 40             | DFT-s-OFDM QPSK       | Inner_Full      | 108_54 | 1745                      | 349000         | 17.50               | 16.69 |
| Low                      | 15           | 40             | DFT-s-OFDM QPSK       | Inner_Full      | 108_54 | 1730                      | 346000         | 17.50               | 16.58 |
| High                     | 15           | 40             | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 12_6   | 1777.5                    | 355500         | 17.50               | 16.82 |
| High                     | 15           | 40             | DFT-s-OFDM 16QAM      | Inner_Full      | 12_6   | 1777.5                    | 355500         | 17.50               | 16.86 |
| High                     | 15           | 40             | DFT-s-OFDM 64QAM      | Inner_Full      | 12_6   | 1777.5                    | 355500         | 17.50               | 16.84 |
| High                     | 15           | 40             | DFT-s-OFDM 256QAM     | Inner_Full      | 12_6   | 1777.5                    | 355500         | 17.50               | 16.83 |
| High                     | 15           | 40             | CP-OFDM QPSK          | Inner_Full      | 13_6   | 1777.5                    | 355500         | 17.50               | 16.84 |
| High                     | 15           | 40             | CP-OFDM 16QAM         | Inner_Full      | 13_6   | 1777.5                    | 355500         | 17.50               | 16.84 |
| High                     | 15           | 40             | CP-OFDM 64QAM         | Inner_Full      | 13_6   | 1777.5                    | 355500         | 17.50               | 16.85 |
| High                     | 15           | 40             | CP-OFDM 256QAM        | Inner_Full      | 13_6   | 1777.5                    | 355500         | 17.50               | 16.84 |
| High                     | 15           | 40             | DFT-s-OFDM 16QAM      | Edge_1RB_Right  | 1_24   | 1777.5                    | 355500         | 17.00               | 16.01 |
| High                     | 15           | 40             | DFT-s-OFDM 16QAM      | Edge_1RB_Left   | 1_0    | 1777.5                    | 355500         | 17.50               | 15.96 |
| High                     | 15           | 40             | DFT-s-OFDM 16QAM      | Edge_Full_Right | 2_23   | 1777.5                    | 355500         | 17.50               | 16.22 |
| High                     | 15           | 40             | DFT-s-OFDM 16QAM      | Edge_Full_Left  | 2_0    | 1777.5                    | 355500         | 17.50               | 16.18 |
| High                     | 15           | 40             | DFT-s-OFDM 16QAM      | Inner_1RB_Right | 1_23   | 1777.5                    | 355500         | 17.00               | 16.05 |
| High                     | 15           | 40             | DFT-s-OFDM 16QAM      | Inner_1RB_Left  | 1_1    | 1777.5                    | 355500         | 17.00               | 15.96 |
| High                     | 15           | 40             | DFT-s-OFDM 16QAM      | Outer_Full      | 25_0   | 1777.5                    | 355500         | 17.50               | 16.72 |
| High                     | 15           | 10             | DFT-s-OFDM 16QAM      | Inner_Full      | 25_12  | 1775                      | 355000         | 17.50               | 16.70 |
| High                     | 15           | 15             | DFT-s-OFDM 16QAM      | Inner_Full      | 36_18  | 1772.5                    | 354500         | 17.50               | 16.53 |
| High                     | 15           | 20             | DFT-s-OFDM 16QAM      | Inner_Full      | 50_25  | 1770                      | 354000         | 17.50               | 16.60 |
| High                     | 15           | 25             | DFT-s-OFDM 16QAM      | Inner_Full      | 64_32  | 1767.5                    | 353500         | 17.50               | 16.65 |
| High                     | 15           | 30             | DFT-s-OFDM 16QAM      | Inner_Full      | 80_40  | 1765                      | 353000         | 17.50               | 16.67 |

**N77 3450MHz-3550MHz(ANT11 DSI2/3)**

| Test Freq<br><br>Description | 5G-n77           |                    |                       |                 |        |                                   |                    |         | Power Results (dBm) |
|------------------------------|------------------|--------------------|-----------------------|-----------------|--------|-----------------------------------|--------------------|---------|---------------------|
|                              | SCS<br><br>(kHz) | NR BW<br><br>(MHz) | Modulation            | RB allocation   |        | NR<br><br>Test Freq.<br><br>(MHz) | NR<br><br>Test CH. | Tune up | n77                 |
| High                         | 30               | 10                 | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3545                              | 636333             | 14.50   | 13.47               |
| Middle                       | 30               | 10                 | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3500.01                           | 633334             | 14.50   | 13.55               |
| Low                          | 30               | 10                 | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3455                              | 630333             | 14.50   | 13.53               |
| High                         | 30               | 100                | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3499.98                           | 633332             | 14.50   | 13.54               |
| Middle                       | 30               | 100                | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3500.01                           | 633334             | 14.50   | 13.53               |
| Middle                       | 30               | 10                 | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 12_6   | 3500.01                           | 633334             | 14.50   | 13.57               |
| Middle                       | 30               | 10                 | DFT-s-OFDM 16QAM      | Inner_Full      | 12_6   | 3500.01                           | 633334             | 14.50   | 13.61               |
| Middle                       | 30               | 10                 | DFT-s-OFDM 64QAM      | Inner_Full      | 12_6   | 3500.01                           | 633334             | 14.50   | 13.56               |
| Middle                       | 30               | 10                 | DFT-s-OFDM 256QAM     | Inner_Full      | 12_6   | 3500.01                           | 633334             | 14.50   | 13.59               |
| Middle                       | 30               | 10                 | CP-OFDM QPSK          | Inner_Full      | 12_6   | 3500.01                           | 633334             | 14.50   | 13.58               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Inner_Full      | 12_6   | 3500.01                           | 633334             | 14.50   | 13.65               |
| Middle                       | 30               | 10                 | CP-OFDM 64QAM         | Inner_Full      | 12_6   | 3500.01                           | 633334             | 14.50   | 13.55               |
| Middle                       | 30               | 10                 | CP-OFDM 256QAM        | Inner_Full      | 12_6   | 3500.01                           | 633334             | 14.50   | 13.59               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Edge_1RB_Right  | 1_23   | 3500.01                           | 633334             | 14.50   | 13.63               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Edge_1RB_Left   | 1_0    | 3500.01                           | 633334             | 14.50   | 13.71               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Edge_Full_Right | 2_22   | 3500.01                           | 633334             | 14.50   | 13.34               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Edge_Full_Left  | 2_0    | 3500.01                           | 633334             | 14.50   | 13.38               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Inner_1RB_Right | 1_22   | 3500.01                           | 633334             | 14.50   | 13.62               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 14.50   | 13.75               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Outer_Full      | 24_0   | 3500.01                           | 633334             | 14.50   | 13.61               |
| Middle                       | 30               | 15                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 14.50   | 13.66               |
| Middle                       | 30               | 20                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 14.50   | 13.49               |
| Middle                       | 30               | 40                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 14.50   | 13.38               |
| Middle                       | 30               | 50                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 14.50   | 13.66               |
| Middle                       | 30               | 60                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 14.50   | 13.58               |
| Middle                       | 30               | 70                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 14.50   | 13.47               |
| Middle                       | 30               | 80                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 14.50   | 13.34               |
| Middle                       | 30               | 90                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 14.50   | 13.33               |

**N77 3450MHz-3550MHz(ANT11 DSI4)**

| Test Freq<br><br>Description | 5G-n77           |                    |                       |                 |        |                                   |                    |         | Power Results (dBm) |
|------------------------------|------------------|--------------------|-----------------------|-----------------|--------|-----------------------------------|--------------------|---------|---------------------|
|                              | SCS<br><br>(kHz) | NR BW<br><br>(MHz) | Modulation            | RB allocation   |        | NR<br><br>Test Freq.<br><br>(MHz) | NR<br><br>Test CH. | Tune up | n77                 |
| High                         | 30               | 10                 | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3545                              | 636333             | 24.00   | 22.95               |
| Middle                       | 30               | 10                 | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3500.01                           | 633334             | 24.00   | 23.04               |
| Low                          | 30               | 10                 | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3455                              | 630333             | 24.00   | 22.96               |
| High                         | 30               | 100                | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3499.98                           | 633332             | 24.00   | 22.96               |
| Middle                       | 30               | 100                | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3500.01                           | 633334             | 24.00   | 22.99               |
| Middle                       | 30               | 10                 | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 12_6   | 3500.01                           | 633334             | 24.00   | 23.06               |
| Middle                       | 30               | 10                 | DFT-s-OFDM 16QAM      | Inner_Full      | 12_6   | 3500.01                           | 633334             | 23.50   | 22.24               |
| Middle                       | 30               | 10                 | DFT-s-OFDM 64QAM      | Inner_Full      | 12_6   | 3500.01                           | 633334             | 21.50   | 20.69               |
| Middle                       | 30               | 10                 | DFT-s-OFDM 256QAM     | Inner_Full      | 12_6   | 3500.01                           | 633334             | 19.50   | 18.72               |
| Middle                       | 30               | 10                 | CP-OFDM QPSK          | Inner_Full      | 12_6   | 3500.01                           | 633334             | 22.50   | 21.71               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Inner_Full      | 12_6   | 3500.01                           | 633334             | 22.00   | 21.26               |
| Middle                       | 30               | 10                 | CP-OFDM 64QAM         | Inner_Full      | 12_6   | 3500.01                           | 633334             | 20.50   | 19.64               |
| Middle                       | 30               | 10                 | CP-OFDM 256QAM        | Inner_Full      | 12_6   | 3500.01                           | 633334             | 17.50   | 16.73               |
| Middle                       | 30               | 10                 | DFT-s-OFDM PI/2 BPSK1 | Edge_1RB_Right  | 1_23   | 3500.01                           | 633334             | 23.50   | 22.53               |
| Middle                       | 30               | 10                 | DFT-s-OFDM PI/2 BPSK1 | Edge_1RB_Left   | 1_0    | 3500.01                           | 633334             | 23.50   | 22.63               |
| Middle                       | 30               | 10                 | DFT-s-OFDM PI/2 BPSK1 | Edge_Full_Right | 2_22   | 3500.01                           | 633334             | 23.50   | 22.61               |
| Middle                       | 30               | 10                 | DFT-s-OFDM PI/2 BPSK1 | Edge_Full_Left  | 2_0    | 3500.01                           | 633334             | 24.00   | 22.69               |
| Middle                       | 30               | 10                 | DFT-s-OFDM PI/2 BPSK1 | Inner_1RB_Right | 1_22   | 3500.01                           | 633334             | 24.00   | 22.83               |
| Middle                       | 30               | 10                 | DFT-s-OFDM PI/2 BPSK1 | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 24.00   | 22.92               |
| Middle                       | 30               | 10                 | DFT-s-OFDM PI/2 BPSK1 | Outer_Full      | 24_0   | 3500.01                           | 633334             | 24.00   | 22.75               |
| Middle                       | 30               | 15                 | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 1_1    | 3500.01                           | 633334             | 24.00   | 23.01               |
| Middle                       | 30               | 20                 | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 1_1    | 3500.01                           | 633334             | 24.00   | 22.93               |
| Middle                       | 30               | 40                 | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 1_1    | 3500.01                           | 633334             | 24.00   | 22.86               |
| Middle                       | 30               | 50                 | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 1_1    | 3500.01                           | 633334             | 24.00   | 23.01               |
| Middle                       | 30               | 60                 | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 1_1    | 3500.01                           | 633334             | 24.00   | 22.97               |
| Middle                       | 30               | 70                 | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 1_1    | 3500.01                           | 633334             | 24.00   | 22.85               |
| Middle                       | 30               | 80                 | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 1_1    | 3500.01                           | 633334             | 24.00   | 22.78               |
| Middle                       | 30               | 90                 | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 1_1    | 3500.01                           | 633334             | 24.00   | 22.78               |

**N77 3450MHz-3550MHz(ANT11 DSI8/9/10)**

| Test Freq<br><br>Description | 5G-n77           |                    |                       |                 |        |                                   |                    |         | Power Results (dBm) |
|------------------------------|------------------|--------------------|-----------------------|-----------------|--------|-----------------------------------|--------------------|---------|---------------------|
|                              | SCS<br><br>(kHz) | NR BW<br><br>(MHz) | Modulation            | RB allocation   |        | NR<br><br>Test Freq.<br><br>(MHz) | NR<br><br>Test CH. | Tune up | n77                 |
| High                         | 30               | 10                 | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3545                              | 636333             | 17.50   | 16.64               |
| Middle                       | 30               | 10                 | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3500.01                           | 633334             | 17.50   | 16.71               |
| Low                          | 30               | 10                 | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3455                              | 630333             | 17.50   | 16.69               |
| High                         | 30               | 100                | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3499.98                           | 633332             | 17.50   | 16.70               |
| Middle                       | 30               | 100                | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3500.01                           | 633334             | 17.50   | 16.69               |
| Middle                       | 30               | 10                 | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 12_6   | 3500.01                           | 633334             | 17.50   | 16.69               |
| Middle                       | 30               | 10                 | DFT-s-OFDM 16QAM      | Inner_Full      | 12_6   | 3500.01                           | 633334             | 17.50   | 16.73               |
| Middle                       | 30               | 10                 | DFT-s-OFDM 64QAM      | Inner_Full      | 12_6   | 3500.01                           | 633334             | 17.50   | 16.69               |
| Middle                       | 30               | 10                 | DFT-s-OFDM 256QAM     | Inner_Full      | 12_6   | 3500.01                           | 633334             | 17.50   | 16.71               |
| Middle                       | 30               | 10                 | CP-OFDM QPSK          | Inner_Full      | 12_6   | 3500.01                           | 633334             | 17.50   | 16.70               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Inner_Full      | 12_6   | 3500.01                           | 633334             | 17.50   | 16.76               |
| Middle                       | 30               | 10                 | CP-OFDM 64QAM         | Inner_Full      | 12_6   | 3500.01                           | 633334             | 17.50   | 16.68               |
| Middle                       | 30               | 10                 | CP-OFDM 256QAM        | Inner_Full      | 12_6   | 3500.01                           | 633334             | 17.50   | 16.71               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Edge_1RB_Right  | 1_23   | 3500.01                           | 633334             | 17.50   | 16.72               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Edge_1RB_Left   | 1_0    | 3500.01                           | 633334             | 17.50   | 16.79               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Edge_Full_Right | 2_22   | 3500.01                           | 633334             | 17.50   | 16.48               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Edge_Full_Left  | 2_0    | 3500.01                           | 633334             | 17.50   | 16.51               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Inner_1RB_Right | 1_22   | 3500.01                           | 633334             | 17.50   | 16.71               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 17.50   | 16.82               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Outer_Full      | 24_0   | 3500.01                           | 633334             | 17.50   | 16.70               |
| Middle                       | 30               | 15                 | CP-OFDM 16QAM         | Inner_Full      | 1_1    | 3500.01                           | 633334             | 17.50   | 16.71               |
| Middle                       | 30               | 20                 | CP-OFDM 16QAM         | Inner_Full      | 1_1    | 3500.01                           | 633334             | 17.50   | 16.67               |
| Middle                       | 30               | 40                 | CP-OFDM 16QAM         | Inner_Full      | 1_1    | 3500.01                           | 633334             | 17.50   | 16.47               |
| Middle                       | 30               | 50                 | CP-OFDM 16QAM         | Inner_Full      | 1_1    | 3500.01                           | 633334             | 17.50   | 16.71               |
| Middle                       | 30               | 60                 | CP-OFDM 16QAM         | Inner_Full      | 1_1    | 3500.01                           | 633334             | 17.50   | 16.64               |
| Middle                       | 30               | 70                 | CP-OFDM 16QAM         | Inner_Full      | 1_1    | 3500.01                           | 633334             | 17.50   | 16.56               |
| Middle                       | 30               | 80                 | CP-OFDM 16QAM         | Inner_Full      | 1_1    | 3500.01                           | 633334             | 17.50   | 16.44               |
| Middle                       | 30               | 90                 | CP-OFDM 16QAM         | Inner_Full      | 1_1    | 3500.01                           | 633334             | 17.50   | 16.43               |

**N77 3450MHz-3550MHz(ANT12 DSI2/3)**

| Test Freq<br><br>Description | 5G-n77           |                    |                       |                 |        |                                   |                    |         | Power Results (dBm) |
|------------------------------|------------------|--------------------|-----------------------|-----------------|--------|-----------------------------------|--------------------|---------|---------------------|
|                              | SCS<br><br>(kHz) | NR BW<br><br>(MHz) | Modulation            | RB allocation   |        | NR<br><br>Test Freq.<br><br>(MHz) | NR<br><br>Test CH. | Tune up | n77                 |
| High                         | 30               | 10                 | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3545                              | 636333             | 17.50   | 16.25               |
| Middle                       | 30               | 10                 | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3500.01                           | 633334             | 17.50   | 16.30               |
| Low                          | 30               | 10                 | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3455                              | 630333             | 17.50   | 16.26               |
| High                         | 30               | 100                | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3499.98                           | 633332             | 17.50   | 16.29               |
| Middle                       | 30               | 100                | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3500.01                           | 633334             | 17.50   | 16.29               |
| Middle                       | 30               | 10                 | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 12_6   | 3500.01                           | 633334             | 17.50   | 16.24               |
| Middle                       | 30               | 10                 | DFT-s-OFDM 16QAM      | Inner_Full      | 12_6   | 3500.01                           | 633334             | 17.50   | 16.26               |
| Middle                       | 30               | 10                 | DFT-s-OFDM 64QAM      | Inner_Full      | 12_6   | 3500.01                           | 633334             | 17.50   | 16.22               |
| Middle                       | 30               | 10                 | DFT-s-OFDM 256QAM     | Inner_Full      | 12_6   | 3500.01                           | 633334             | 17.50   | 16.27               |
| Middle                       | 30               | 10                 | CP-OFDM QPSK          | Inner_Full      | 12_6   | 3500.01                           | 633334             | 17.50   | 16.26               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Inner_Full      | 12_6   | 3500.01                           | 633334             | 17.50   | 16.32               |
| Middle                       | 30               | 10                 | CP-OFDM 64QAM         | Inner_Full      | 12_6   | 3500.01                           | 633334             | 17.50   | 16.23               |
| Middle                       | 30               | 10                 | CP-OFDM 256QAM        | Inner_Full      | 12_6   | 3500.01                           | 633334             | 17.00   | 15.84               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Edge_1RB_Right  | 1_23   | 3500.01                           | 633334             | 17.50   | 16.31               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Edge_1RB_Left   | 1_0    | 3500.01                           | 633334             | 17.50   | 16.33               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Edge_Full_Right | 2_22   | 3500.01                           | 633334             | 17.00   | 16.05               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Edge_Full_Left  | 2_0    | 3500.01                           | 633334             | 17.00   | 16.02               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Inner_1RB_Right | 1_22   | 3500.01                           | 633334             | 17.50   | 16.30               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 17.50   | 16.36               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Outer_Full      | 24_0   | 3500.01                           | 633334             | 17.50   | 16.19               |
| Middle                       | 30               | 15                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 17.50   | 16.25               |
| Middle                       | 30               | 20                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 17.50   | 16.13               |
| Middle                       | 30               | 40                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 17.00   | 15.97               |
| Middle                       | 30               | 50                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 17.50   | 16.24               |
| Middle                       | 30               | 60                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 17.50   | 16.16               |
| Middle                       | 30               | 70                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 17.50   | 16.08               |
| Middle                       | 30               | 80                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 17.00   | 15.82               |
| Middle                       | 30               | 90                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 17.00   | 15.82               |
| Middle                       | 30               | 10                 | DFT-s-OFDM 16QAM      | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 17.50   | 16.29               |

**N77 3450MHz-3550MHz(ANT12 DSI4)**

| Test Freq<br><br>Description | 5G-n77           |                    |                       |                 |        |                                   |                    |         | Power Results (dBm) |
|------------------------------|------------------|--------------------|-----------------------|-----------------|--------|-----------------------------------|--------------------|---------|---------------------|
|                              | SCS<br><br>(kHz) | NR BW<br><br>(MHz) | Modulation            | RB allocation   |        | NR<br><br>Test Freq.<br><br>(MHz) | NR<br><br>Test CH. | Tune up | n77                 |
| High                         | 30               | 10                 | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3545                              | 636333             | 20.00   | 18.85               |
| Middle                       | 30               | 10                 | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3500.01                           | 633334             | 20.00   | 18.94               |
| Low                          | 30               | 10                 | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3455                              | 630333             | 20.00   | 18.87               |
| High                         | 30               | 100                | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3499.98                           | 633332             | 20.00   | 18.90               |
| Middle                       | 30               | 100                | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3500.01                           | 633334             | 20.00   | 18.90               |
| Middle                       | 30               | 10                 | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 12_6   | 3500.01                           | 633334             | 20.00   | 18.93               |
| Middle                       | 30               | 10                 | DFT-s-OFDM 16QAM      | Inner_Full      | 12_6   | 3500.01                           | 633334             | 20.00   | 18.95               |
| Middle                       | 30               | 10                 | DFT-s-OFDM 64QAM      | Inner_Full      | 12_6   | 3500.01                           | 633334             | 20.00   | 18.88               |
| Middle                       | 30               | 10                 | DFT-s-OFDM 256QAM     | Inner_Full      | 12_6   | 3500.01                           | 633334             | 19.00   | 17.96               |
| Middle                       | 30               | 10                 | CP-OFDM QPSK          | Inner_Full      | 12_6   | 3500.01                           | 633334             | 20.00   | 18.92               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Inner_Full      | 12_6   | 3500.01                           | 633334             | 20.00   | 18.98               |
| Middle                       | 30               | 10                 | CP-OFDM 64QAM         | Inner_Full      | 12_6   | 3500.01                           | 633334             | 20.00   | 18.90               |
| Middle                       | 30               | 10                 | CP-OFDM 256QAM        | Inner_Full      | 12_6   | 3500.01                           | 633334             | 16.50   | 15.97               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Edge_1RB_Right  | 1_23   | 3500.01                           | 633334             | 20.00   | 18.97               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Edge_1RB_Left   | 1_0    | 3500.01                           | 633334             | 20.00   | 18.99               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Edge_Full_Right | 2_22   | 3500.01                           | 633334             | 20.00   | 18.76               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Edge_Full_Left  | 2_0    | 3500.01                           | 633334             | 20.00   | 18.73               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Inner_1RB_Right | 1_22   | 3500.01                           | 633334             | 20.00   | 18.96               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 20.00   | 19.01               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Outer_Full      | 24_0   | 3500.01                           | 633334             | 20.00   | 18.87               |
| Middle                       | 30               | 15                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 20.00   | 18.9                |
| Middle                       | 30               | 20                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 20.00   | 18.78               |
| Middle                       | 30               | 40                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 20.00   | 18.67               |
| Middle                       | 30               | 50                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 20.00   | 18.89               |
| Middle                       | 30               | 60                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 20.00   | 18.83               |
| Middle                       | 30               | 70                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 20.00   | 19.69               |
| Middle                       | 30               | 80                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 20.00   | 18.55               |
| Middle                       | 30               | 90                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 20.00   | 18.55               |
| Middle                       | 30               | 10                 | DFT-s-OFDM 16QAM      | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 20.00   | 18.94               |

**N77 3450MHz-3550MHz(ANT12 DSI8/9/10)**

| Test Freq<br><br>Description | 5G-n77           |                    |                       |                 |        |                                   |                    |         | Power Results (dBm) |
|------------------------------|------------------|--------------------|-----------------------|-----------------|--------|-----------------------------------|--------------------|---------|---------------------|
|                              | SCS<br><br>(kHz) | NR BW<br><br>(MHz) | Modulation            | RB allocation   |        | NR<br><br>Test Freq.<br><br>(MHz) | NR<br><br>Test CH. | Tune up | n77                 |
| High                         | 30               | 10                 | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3545                              | 636333             | 18.50   | 17.15               |
| Middle                       | 30               | 10                 | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3500.01                           | 633334             | 18.50   | 17.20               |
| Low                          | 30               | 10                 | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3455                              | 630333             | 18.50   | 17.16               |
| High                         | 30               | 100                | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3499.98                           | 633332             | 18.50   | 17.19               |
| Middle                       | 30               | 100                | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3500.01                           | 633334             | 18.50   | 17.19               |
| Middle                       | 30               | 10                 | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 12_6   | 3500.01                           | 633334             | 18.50   | 17.19               |
| Middle                       | 30               | 10                 | DFT-s-OFDM 16QAM      | Inner_Full      | 12_6   | 3500.01                           | 633334             | 18.50   | 17.21               |
| Middle                       | 30               | 10                 | DFT-s-OFDM 64QAM      | Inner_Full      | 12_6   | 3500.01                           | 633334             | 18.50   | 17.18               |
| Middle                       | 30               | 10                 | DFT-s-OFDM 256QAM     | Inner_Full      | 12_6   | 3500.01                           | 633334             | 18.50   | 17.22               |
| Middle                       | 30               | 10                 | CP-OFDM QPSK          | Inner_Full      | 12_6   | 3500.01                           | 633334             | 18.50   | 17.21               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Inner_Full      | 12_6   | 3500.01                           | 633334             | 18.50   | 17.27               |
| Middle                       | 30               | 10                 | CP-OFDM 64QAM         | Inner_Full      | 12_6   | 3500.01                           | 633334             | 18.50   | 17.19               |
| Middle                       | 30               | 10                 | CP-OFDM 256QAM        | Inner_Full      | 12_6   | 3500.01                           | 633334             | 18.00   | 16.82               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Edge_1RB_Right  | 1_23   | 3500.01                           | 633334             | 18.50   | 17.25               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Edge_1RB_Left   | 1_0    | 3500.01                           | 633334             | 18.50   | 17.27               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Edge_Full_Right | 2_22   | 3500.01                           | 633334             | 18.00   | 17.01               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Edge_Full_Left  | 2_0    | 3500.01                           | 633334             | 18.00   | 16.98               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Inner_1RB_Right | 1_22   | 3500.01                           | 633334             | 18.50   | 17.24               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 18.50   | 17.30               |
| Middle                       | 30               | 10                 | CP-OFDM 16QAM         | Outer_Full      | 24_0   | 3500.01                           | 633334             | 18.50   | 17.14               |
| Middle                       | 30               | 15                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 18.50   | 17.15               |
| Middle                       | 30               | 20                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 18.00   | 16.97               |
| Middle                       | 30               | 40                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 18.00   | 16.89               |
| Middle                       | 30               | 50                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 18.50   | 17.14               |
| Middle                       | 30               | 60                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 18.00   | 17.07               |
| Middle                       | 30               | 70                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 18.00   | 16.98               |
| Middle                       | 30               | 80                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 18.00   | 16.75               |
| Middle                       | 30               | 90                 | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 18.00   | 16.75               |
| Middle                       | 30               | 10                 | DFT-s-OFDM 16QAM      | Inner_1RB_Left  | 1_1    | 3500.01                           | 633334             | 18.50   | 17.22               |

**N77 3750MHz-3980MHz(ANT11 DSI2/3)**

| Test Freq | 5G-n77       |                |                       |                 |        |                           |                | Power Results (dBm) |
|-----------|--------------|----------------|-----------------------|-----------------|--------|---------------------------|----------------|---------------------|
|           | SCS<br>(kHz) | NR BW<br>(MHz) | Modulation            | RB allocation   |        | NR<br>Test Freq.<br>(MHz) | NR<br>Test CH. |                     |
| High      | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3975.000                  | 665000         | 14.50               |
| Middle-1  | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3921.000                  | 661400         | 14.50               |
| Middle-2  | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3867.000                  | 657800         | 14.50               |
| Middle-3  | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3813.000                  | 654200         | 14.50               |
| Middle-5  | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3759.000                  | 650600         | 14.50               |
| Low       | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3705.000                  | 647000         | 14.50               |
| High      | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3930.000                  | 662000         | 14.50               |
| Middle-1  | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3894.000                  | 659600         | 14.50               |
| Middle-2  | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3858.000                  | 657200         | 14.50               |
| Middle-3  | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3822.000                  | 654800         | 14.50               |
| Middle-4  | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3786.000                  | 652400         | 14.50               |
| Low       | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3750.000                  | 650000         | 14.50               |
| Low       | 30           | 10             | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 12_6   | 3705.000                  | 647000         | 14.50               |
| Low       | 30           | 10             | DFT-s-OFDM 16QAM      | Inner_Full      | 12_6   | 3705.000                  | 647000         | 14.50               |
| Low       | 30           | 10             | DFT-s-OFDM 64QAM      | Inner_Full      | 12_6   | 3705.000                  | 647000         | 14.50               |
| Low       | 30           | 10             | DFT-s-OFDM 256QAM     | Inner_Full      | 12_6   | 3705.000                  | 647000         | 14.50               |
| Low       | 30           | 10             | CP-OFDM QPSK          | Inner_Full      | 12_6   | 3705.000                  | 647000         | 14.50               |
| Low       | 30           | 10             | CP-OFDM 16QAM         | Inner_Full      | 12_6   | 3705.000                  | 647000         | 14.50               |
| Low       | 30           | 10             | CP-OFDM 64QAM         | Inner_Full      | 12_6   | 3705.000                  | 647000         | 14.50               |
| Low       | 30           | 10             | CP-OFDM 256QAM        | Inner_Full      | 12_6   | 3705.000                  | 647000         | 14.50               |
| Low       | 30           | 10             | CP-OFDM 16QAM         | Edge_1RB_Right  | 1_23   | 3705.000                  | 647000         | 14.50               |
| Low       | 30           | 10             | CP-OFDM 16QAM         | Edge_1RB_Left   | 1_0    | 3705.000                  | 647000         | 14.50               |
| Low       | 30           | 10             | CP-OFDM 16QAM         | Edge_Full_Right | 2_22   | 3705.000                  | 647000         | 14.50               |
| Low       | 30           | 10             | CP-OFDM 16QAM         | Edge_Full_Left  | 2_0    | 3705.000                  | 647000         | 14.50               |
| Low       | 30           | 10             | CP-OFDM 16QAM         | Inner_1RB_Right | 1_22   | 3705.000                  | 647000         | 14.50               |
| Low       | 30           | 10             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3705.000                  | 647000         | 14.50               |
| Low       | 30           | 10             | CP-OFDM 16QAM         | Outer_Full      | 24_0   | 3705.000                  | 647000         | 14.50               |
| Low       | 30           | 15             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3707.500                  | 647167         | 14.50               |
| Low       | 30           | 20             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3710.000                  | 647333         | 14.50               |
| Low       | 30           | 40             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3720.000                  | 648000         | 14.50               |
| Low       | 30           | 50             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3725.000                  | 648333         | 14.50               |
| Low       | 30           | 60             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3730.000                  | 648667         | 14.50               |
| Low       | 30           | 70             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3735.000                  | 649000         | 14.50               |
| Low       | 30           | 80             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3740.000                  | 649333         | 14.50               |
| Low       | 30           | 90             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3745.000                  | 649667         | 14.50               |
| Low       | 30           | 10             | DFT-s-OFDM 16QAM      | Inner_1RB_Left  | 1_1    | 3705.000                  | 647000         | 14.50               |

**N77 3750MHz-3980MHz(ANT11 DSI4)**

| Test Freq | 5G-n77       |                |                       |                 |        |                           |                |         | Power Results (dBm) |
|-----------|--------------|----------------|-----------------------|-----------------|--------|---------------------------|----------------|---------|---------------------|
|           | SCS<br>(kHz) | NR BW<br>(MHz) | Modulation            | RB allocation   |        | NR<br>Test Freq.<br>(MHz) | NR<br>Test CH. | Tune up | n77                 |
| High      | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3975.000                  | 665000         | 24.00   | 22.97               |
| Middle-1  | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3921.000                  | 661400         | 24.00   | 22.92               |
| Middle-2  | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3867.000                  | 657800         | 24.00   | 23.02               |
| Middle-3  | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3813.000                  | 654200         | 24.00   | 22.96               |
| Middle-5  | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3759.000                  | 650600         | 24.00   | 22.99               |
| Low       | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3705.000                  | 647000         | 24.00   | 23.06               |
| High      | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3930.000                  | 662000         | 24.00   | 22.95               |
| Middle-1  | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3894.000                  | 659600         | 24.00   | 22.97               |
| Middle-2  | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3858.000                  | 657200         | 24.00   | 23.01               |
| Middle-3  | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3822.000                  | 654800         | 24.00   | 22.96               |
| Middle-4  | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3786.000                  | 652400         | 24.00   | 22.96               |
| Low       | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3750.000                  | 650000         | 24.00   | 23.02               |
| Low       | 30           | 10             | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 12_6   | 3705.000                  | 647000         | 24.00   | 23.07               |
| Low       | 30           | 10             | DFT-s-OFDM 16QAM      | Inner_Full      | 12_6   | 3705.000                  | 647000         | 23.00   | 22.10               |
| Low       | 30           | 10             | DFT-s-OFDM 64QAM      | Inner_Full      | 12_6   | 3705.000                  | 647000         | 21.50   | 20.52               |
| Low       | 30           | 10             | DFT-s-OFDM 256QAM     | Inner_Full      | 12_6   | 3705.000                  | 647000         | 19.50   | 18.51               |
| Low       | 30           | 10             | CP-OFDM QPSK          | Inner_Full      | 12_6   | 3705.000                  | 647000         | 22.50   | 21.55               |
| Low       | 30           | 10             | CP-OFDM 16QAM         | Inner_Full      | 12_6   | 3705.000                  | 647000         | 22.00   | 21.10               |
| Low       | 30           | 10             | CP-OFDM 64QAM         | Inner_Full      | 12_6   | 3705.000                  | 647000         | 20.50   | 19.45               |
| Low       | 30           | 10             | CP-OFDM 256QAM        | Inner_Full      | 12_6   | 3705.000                  | 647000         | 17.50   | 16.50               |
| Low       | 30           | 10             | DFT-s-OFDM PI/2 BPSK1 | Edge_1RB_Right  | 1_23   | 3705.000                  | 647000         | 23.50   | 22.39               |
| Low       | 30           | 10             | DFT-s-OFDM PI/2 BPSK1 | Edge_1RB_Left   | 1_0    | 3705.000                  | 647000         | 23.50   | 22.49               |
| Low       | 30           | 10             | DFT-s-OFDM PI/2 BPSK1 | Edge_Full_Right | 2_22   | 3705.000                  | 647000         | 23.50   | 22.47               |
| Low       | 30           | 10             | DFT-s-OFDM PI/2 BPSK1 | Edge_Full_Left  | 2_0    | 3705.000                  | 647000         | 23.50   | 22.55               |
| Low       | 30           | 10             | DFT-s-OFDM PI/2 BPSK1 | Inner_1RB_Right | 1_22   | 3705.000                  | 647000         | 24.00   | 22.70               |
| Low       | 30           | 10             | DFT-s-OFDM PI/2 BPSK1 | Inner_1RB_Left  | 1_1    | 3705.000                  | 647000         | 24.00   | 22.79               |
| Low       | 30           | 10             | DFT-s-OFDM PI/2 BPSK1 | Outer_Full      | 24_0   | 3705.000                  | 647000         | 24.00   | 22.76               |
| Low       | 30           | 15             | DFT-s-OFDM PI/2 BPSK1 | Inner_1RB_Left  | 1_1    | 3707.500                  | 647167         | 24.00   | 22.82               |
| Low       | 30           | 20             | DFT-s-OFDM PI/2 BPSK1 | Inner_1RB_Left  | 1_1    | 3710.000                  | 647333         | 24.00   | 22.86               |
| Low       | 30           | 40             | DFT-s-OFDM PI/2 BPSK1 | Inner_1RB_Left  | 1_1    | 3720.000                  | 648000         | 24.00   | 22.61               |
| Low       | 30           | 50             | DFT-s-OFDM PI/2 BPSK1 | Inner_1RB_Left  | 1_1    | 3725.000                  | 648333         | 24.00   | 22.79               |
| Low       | 30           | 60             | DFT-s-OFDM PI/2 BPSK1 | Inner_1RB_Left  | 1_1    | 3730.000                  | 648667         | 24.00   | 22.74               |
| Low       | 30           | 70             | DFT-s-OFDM PI/2 BPSK1 | Inner_1RB_Left  | 1_1    | 3735.000                  | 649000         | 24.00   | 22.71               |
| Low       | 30           | 80             | DFT-s-OFDM PI/2 BPSK1 | Inner_1RB_Left  | 1_1    | 3740.000                  | 649333         | 23.50   | 22.53               |
| Low       | 30           | 90             | DFT-s-OFDM PI/2 BPSK1 | Inner_1RB_Left  | 1_1    | 3745.000                  | 649667         | 23.50   | 22.53               |

**N77 3750MHz-3980MHz(ANT11 DSI8/9/10)**

| Test Freq<br>Description | 5G-n77       |                |                       |                 |        |                           |                | Power Results (dBm) |       |
|--------------------------|--------------|----------------|-----------------------|-----------------|--------|---------------------------|----------------|---------------------|-------|
|                          | SCS<br>(kHz) | NR BW<br>(MHz) | Modulation            | RB allocation   |        | NR<br>Test Freq.<br>(MHz) | NR<br>Test CH. | Tune up             | n77   |
| High                     | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3975.000                  | 665000         | 17.50               | 16.45 |
| Middle-1                 | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3921.000                  | 661400         | 17.50               | 16.37 |
| Middle-2                 | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3867.000                  | 657800         | 17.50               | 16.54 |
| Middle-3                 | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3813.000                  | 654200         | 17.50               | 16.43 |
| Middle-5                 | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3759.000                  | 650600         | 17.50               | 16.49 |
| Low                      | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3705.000                  | 647000         | 17.50               | 16.61 |
| High                     | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3930.000                  | 662000         | 17.50               | 16.43 |
| Middle-1                 | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3894.000                  | 659600         | 17.50               | 16.48 |
| Middle-2                 | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3858.000                  | 657200         | 17.50               | 16.55 |
| Middle-3                 | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3822.000                  | 654800         | 17.50               | 16.46 |
| Middle-4                 | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3786.000                  | 652400         | 17.50               | 16.47 |
| Low                      | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3750.000                  | 650000         | 17.50               | 16.57 |
| Low                      | 30           | 10             | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 12_6   | 3705.000                  | 647000         | 17.50               | 16.58 |
| Low                      | 30           | 10             | DFT-s-OFDM 16QAM      | Inner_Full      | 12_6   | 3705.000                  | 647000         | 17.50               | 16.61 |
| Low                      | 30           | 10             | DFT-s-OFDM 64QAM      | Inner_Full      | 12_6   | 3705.000                  | 647000         | 17.50               | 16.57 |
| Low                      | 30           | 10             | DFT-s-OFDM 256QAM     | Inner_Full      | 12_6   | 3705.000                  | 647000         | 17.50               | 16.63 |
| Low                      | 30           | 10             | CP-OFDM QPSK          | Inner_Full      | 12_6   | 3705.000                  | 647000         | 17.50               | 16.61 |
| Low                      | 30           | 10             | CP-OFDM 16QAM         | Inner_Full      | 12_6   | 3705.000                  | 647000         | 17.50               | 16.66 |
| Low                      | 30           | 10             | CP-OFDM 64QAM         | Inner_Full      | 12_6   | 3705.000                  | 647000         | 17.50               | 16.58 |
| Low                      | 30           | 10             | CP-OFDM 256QAM        | Inner_Full      | 12_6   | 3705.000                  | 647000         | 17.50               | 16.62 |
| Low                      | 30           | 10             | CP-OFDM 16QAM         | Edge_1RB_Right  | 1_23   | 3705.000                  | 647000         | 17.50               | 16.63 |
| Low                      | 30           | 10             | CP-OFDM 16QAM         | Edge_1RB_Left   | 1_0    | 3705.000                  | 647000         | 17.50               | 16.67 |
| Low                      | 30           | 10             | CP-OFDM 16QAM         | Edge_Full_Right | 2_22   | 3705.000                  | 647000         | 17.50               | 16.39 |
| Low                      | 30           | 10             | CP-OFDM 16QAM         | Edge_Full_Left  | 2_0    | 3705.000                  | 647000         | 17.50               | 16.40 |
| Low                      | 30           | 10             | CP-OFDM 16QAM         | Inner_1RB_Right | 1_22   | 3705.000                  | 647000         | 17.50               | 16.61 |
| Low                      | 30           | 10             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3705.000                  | 647000         | 17.50               | 16.69 |
| Low                      | 30           | 10             | CP-OFDM 16QAM         | Outer_Full      | 24_0   | 3705.000                  | 647000         | 17.50               | 16.60 |
| Low                      | 30           | 10             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3705.000                  | 647000         | 17.50               | 16.61 |
| Low                      | 30           | 15             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3707.500                  | 647167         | 17.50               | 16.58 |
| Low                      | 30           | 20             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3710.000                  | 647333         | 17.50               | 16.57 |
| Low                      | 30           | 40             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3720.000                  | 648000         | 17.50               | 16.35 |
| Low                      | 30           | 50             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3725.000                  | 648333         | 17.50               | 16.54 |
| Low                      | 30           | 60             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3730.000                  | 648667         | 17.50               | 16.51 |
| Low                      | 30           | 70             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3735.000                  | 649000         | 17.50               | 16.46 |
| Low                      | 30           | 80             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3740.000                  | 649333         | 17.50               | 16.37 |
| Low                      | 30           | 90             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3745.000                  | 649667         | 17.50               | 16.29 |
| Low                      | 30           | 10             | DFT-s-OFDM 16QAM      | Inner_1RB_Left  | 1_1    | 3705.000                  | 647000         | 17.50               | 16.64 |

**N77 3750MHz-3980MHz(ANT12 DSI2/3)**

| Test Freq<br>Description | 5G-n77       |                |                       |                 |        |                           |                | Tune up | Power Results (dBm)<br>n77 |
|--------------------------|--------------|----------------|-----------------------|-----------------|--------|---------------------------|----------------|---------|----------------------------|
|                          | SCS<br>(kHz) | NR BW<br>(MHz) | Modulation            | RB allocation   |        | NR<br>Test Freq.<br>(MHz) | NR<br>Test CH. |         |                            |
| High                     | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3975.000                  | 665000         | 17.00   | 15.78                      |
| Middle-1                 | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3921.000                  | 661400         | 17.00   | 15.84                      |
| Middle-2                 | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3867.000                  | 657800         | 17.00   | 16.20                      |
| Middle-3                 | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3813.000                  | 654200         | 17.00   | 16.14                      |
| Middle-5                 | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3759.000                  | 650600         | 17.00   | 16.21                      |
| Low                      | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3705.000                  | 647000         | 17.00   | 16.25                      |
| High                     | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3930.000                  | 662000         | 17.00   | 15.88                      |
| Middle-1                 | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3894.000                  | 659600         | 17.00   | 16.05                      |
| Middle-2                 | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3858.000                  | 657200         | 17.00   | 16.21                      |
| Middle-3                 | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3822.000                  | 654800         | 17.00   | 16.16                      |
| Middle-4                 | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3786.000                  | 652400         | 17.00   | 16.23                      |
| Low                      | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3750.000                  | 650000         | 17.00   | 16.23                      |
| Low                      | 30           | 10             | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 12_6   | 3705.000                  | 647000         | 17.00   | 16.24                      |
| Low                      | 30           | 10             | DFT-s-OFDM 16QAM      | Inner_Full      | 12_6   | 3705.000                  | 647000         | 17.00   | 16.27                      |
| Low                      | 30           | 10             | DFT-s-OFDM 64QAM      | Inner_Full      | 12_6   | 3705.000                  | 647000         | 17.00   | 16.21                      |
| Low                      | 30           | 10             | DFT-s-OFDM 256QAM     | Inner_Full      | 12_6   | 3705.000                  | 647000         | 17.00   | 16.25                      |
| Low                      | 30           | 10             | CP-OFDM QPSK          | Inner_Full      | 12_6   | 3705.000                  | 647000         | 17.00   | 16.27                      |
| Low                      | 30           | 10             | CP-OFDM 16QAM         | Inner_Full      | 12_6   | 3705.000                  | 647000         | 17.00   | 16.31                      |
| Low                      | 30           | 10             | CP-OFDM 64QAM         | Inner_Full      | 12_6   | 3705.000                  | 647000         | 17.00   | 16.24                      |
| Low                      | 30           | 10             | CP-OFDM 256QAM        | Inner_Full      | 12_6   | 3705.000                  | 647000         | 17.00   | 15.80                      |
| Low                      | 30           | 10             | CP-OFDM 16QAM         | Edge_1RB_Right  | 1_23   | 3705.000                  | 647000         | 17.00   | 16.32                      |
| Low                      | 30           | 10             | CP-OFDM 16QAM         | Edge_1RB_Left   | 1_0    | 3705.000                  | 647000         | 17.00   | 16.31                      |
| Low                      | 30           | 10             | CP-OFDM 16QAM         | Edge_Full_Right | 2_22   | 3705.000                  | 647000         | 17.00   | 16.05                      |
| Low                      | 30           | 10             | CP-OFDM 16QAM         | Edge_Full_Left  | 2_0    | 3705.000                  | 647000         | 17.00   | 16.02                      |
| Low                      | 30           | 10             | CP-OFDM 16QAM         | Inner_1RB_Right | 1_22   | 3705.000                  | 647000         | 17.00   | 16.29                      |
| Low                      | 30           | 10             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3705.000                  | 647000         | 17.00   | 16.36                      |
| Low                      | 30           | 10             | CP-OFDM 16QAM         | Outer_Full      | 24_0   | 3705.000                  | 647000         | 17.00   | 16.30                      |
| Low                      | 30           | 10             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3705.000                  | 647000         | 17.00   | 16.25                      |
| Low                      | 30           | 15             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3707.500                  | 647167         | 17.00   | 16.19                      |
| Low                      | 30           | 20             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3710.000                  | 647333         | 17.00   | 16.12                      |
| Low                      | 30           | 40             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3720.000                  | 648000         | 17.00   | 15.82                      |
| Low                      | 30           | 50             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3725.000                  | 648333         | 17.00   | 16.13                      |
| Low                      | 30           | 60             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3730.000                  | 648667         | 17.00   | 16.05                      |
| Low                      | 30           | 70             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3735.000                  | 649000         | 17.00   | 15.92                      |
| Low                      | 30           | 80             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3740.000                  | 649333         | 17.00   | 15.66                      |
| Low                      | 30           | 90             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3745.000                  | 649667         | 17.00   | 15.67                      |
| Low                      | 30           | 10             | DFT-s-OFDM 16QAM      | Inner_1RB_Left  | 1_1    | 3705.000                  | 647000         | 17.00   | 16.33                      |

**N77 3750MHz-3980MHz(ANT12 DSI4)**

| Test Freq | 5G-n77       |                |                       |                 |        |                           |                | Power Results (dBm) |       |
|-----------|--------------|----------------|-----------------------|-----------------|--------|---------------------------|----------------|---------------------|-------|
|           | SCS<br>(kHz) | NR BW<br>(MHz) | Modulation            | RB allocation   |        | NR<br>Test Freq.<br>(MHz) | NR<br>Test CH. | Tune up             | n77   |
| High      | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3975.000                  | 665000         | 19.50               | 18.45 |
| Middle-1  | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3921.000                  | 661400         | 19.50               | 18.49 |
| Middle-2  | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3867.000                  | 657800         | 20.00               | 18.80 |
| Middle-3  | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3813.000                  | 654200         | 20.00               | 18.75 |
| Middle-5  | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3759.000                  | 650600         | 20.00               | 18.81 |
| Low       | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3705.000                  | 647000         | 20.00               | 18.84 |
| High      | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3930.000                  | 662000         | 19.50               | 18.53 |
| Middle-1  | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3894.000                  | 659600         | 20.00               | 18.68 |
| Middle-2  | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3858.000                  | 657200         | 20.00               | 18.81 |
| Middle-3  | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3822.000                  | 654800         | 20.00               | 18.77 |
| Middle-4  | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3786.000                  | 652400         | 20.00               | 18.83 |
| Low       | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3750.000                  | 650000         | 20.00               | 18.83 |
| Low       | 30           | 10             | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 12_6   | 3705.000                  | 647000         | 20.00               | 18.83 |
| Low       | 30           | 10             | DFT-s-OFDM 16QAM      | Inner_Full      | 12_6   | 3705.000                  | 647000         | 20.00               | 18.86 |
| Low       | 30           | 10             | DFT-s-OFDM 64QAM      | Inner_Full      | 12_6   | 3705.000                  | 647000         | 20.00               | 18.81 |
| Low       | 30           | 10             | DFT-s-OFDM 256QAM     | Inner_Full      | 12_6   | 3705.000                  | 647000         | 19.00               | 17.87 |
| Low       | 30           | 10             | CP-OFDM QPSK          | Inner_Full      | 12_6   | 3705.000                  | 647000         | 20.00               | 18.86 |
| Low       | 30           | 10             | CP-OFDM 16QAM         | Inner_Full      | 12_6   | 3705.000                  | 647000         | 20.00               | 18.89 |
| Low       | 30           | 10             | CP-OFDM 64QAM         | Inner_Full      | 12_6   | 3705.000                  | 647000         | 20.00               | 18.83 |
| Low       | 30           | 10             | CP-OFDM 256QAM        | Inner_Full      | 12_6   | 3705.000                  | 647000         | 17.00               | 15.80 |
| Low       | 30           | 10             | CP-OFDM 16QAM         | Edge_1RB_Right  | 1_23   | 3705.000                  | 647000         | 20.00               | 18.88 |
| Low       | 30           | 10             | CP-OFDM 16QAM         | Edge_1RB_Left   | 1_0    | 3705.000                  | 647000         | 20.00               | 18.87 |
| Low       | 30           | 10             | CP-OFDM 16QAM         | Edge_Full_Right | 2_22   | 3705.000                  | 647000         | 20.00               | 18.65 |
| Low       | 30           | 10             | CP-OFDM 16QAM         | Edge_Full_Left  | 2_0    | 3705.000                  | 647000         | 20.00               | 18.63 |
| Low       | 30           | 10             | CP-OFDM 16QAM         | Inner_1RB_Right | 1_22   | 3705.000                  | 647000         | 20.00               | 18.85 |
| Low       | 30           | 10             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3705.000                  | 647000         | 20.00               | 18.91 |
| Low       | 30           | 10             | CP-OFDM 16QAM         | Outer_Full      | 24_0   | 3705.000                  | 647000         | 20.00               | 18.86 |
| Low       | 30           | 15             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3707.500                  | 647167         | 20.00               | 18.79 |
| Low       | 30           | 20             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3710.000                  | 647333         | 20.00               | 18.67 |
| Low       | 30           | 40             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3720.000                  | 648000         | 19.50               | 18.48 |
| Low       | 30           | 50             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3725.000                  | 648333         | 20.00               | 18.74 |
| Low       | 30           | 60             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3730.000                  | 648667         | 20.00               | 18.67 |
| Low       | 30           | 70             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3735.000                  | 649000         | 20.00               | 18.61 |
| Low       | 30           | 80             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3740.000                  | 649333         | 19.50               | 18.35 |
| Low       | 30           | 90             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3745.000                  | 649667         | 19.50               | 18.36 |
| Low       | 30           | 10             | DFT-s-OFDM 16QAM      | Inner_1RB_Left  | 1_1    | 3705.000                  | 647000         | 20.00               | 18.88 |

**N77 3750MHz-3980MHz(ANT12 DSI8/9/10)**

| Test Freq | 5G-n77       |                |                       |                 |        |                           |                | Power Results (dBm) |       |
|-----------|--------------|----------------|-----------------------|-----------------|--------|---------------------------|----------------|---------------------|-------|
|           | SCS<br>(kHz) | NR BW<br>(MHz) | Modulation            | RB allocation   |        | NR<br>Test Freq.<br>(MHz) | NR<br>Test CH. | Tune up             | n77   |
| High      | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3975.000                  | 665000         | 18.00               | 16.73 |
| Middle-1  | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3921.000                  | 661400         | 18.00               | 16.79 |
| Middle-2  | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3867.000                  | 657800         | 18.00               | 17.12 |
| Middle-3  | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3813.000                  | 654200         | 18.00               | 17.07 |
| Middle-5  | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3759.000                  | 650600         | 18.00               | 17.13 |
| Low       | 30           | 10             | DFT-s-OFDM QPSK       | Inner_Full      | 12_6   | 3705.000                  | 647000         | 18.00               | 17.17 |
| High      | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3930.000                  | 662000         | 18.00               | 16.82 |
| Middle-1  | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3894.000                  | 659600         | 18.00               | 16.98 |
| Middle-2  | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3858.000                  | 657200         | 18.00               | 17.13 |
| Middle-3  | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3822.000                  | 654800         | 18.00               | 17.09 |
| Middle-4  | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3786.000                  | 652400         | 18.00               | 17.15 |
| Low       | 30           | 100            | DFT-s-OFDM QPSK       | Inner_Full      | 135_67 | 3750.000                  | 650000         | 18.00               | 17.15 |
| Low       | 30           | 10             | DFT-s-OFDM PI/2 BPSK1 | Inner_Full      | 12_6   | 3705.000                  | 647000         | 18.00               | 17.16 |
| Low       | 30           | 10             | DFT-s-OFDM 16QAM      | Inner_Full      | 12_6   | 3705.000                  | 647000         | 18.00               | 17.19 |
| Low       | 30           | 10             | DFT-s-OFDM 64QAM      | Inner_Full      | 12_6   | 3705.000                  | 647000         | 18.00               | 17.14 |
| Low       | 30           | 10             | DFT-s-OFDM 256QAM     | Inner_Full      | 12_6   | 3705.000                  | 647000         | 18.00               | 17.17 |
| Low       | 30           | 10             | CP-OFDM QPSK          | Inner_Full      | 12_6   | 3705.000                  | 647000         | 18.00               | 17.19 |
| Low       | 30           | 10             | CP-OFDM 16QAM         | Inner_Full      | 12_6   | 3705.000                  | 647000         | 18.00               | 17.23 |
| Low       | 30           | 10             | CP-OFDM 64QAM         | Inner_Full      | 12_6   | 3705.000                  | 647000         | 18.00               | 17.16 |
| Low       | 30           | 10             | CP-OFDM 256QAM        | Inner_Full      | 12_6   | 3705.000                  | 647000         | 18.00               | 16.75 |
| Low       | 30           | 10             | CP-OFDM 16QAM         | Edge_1RB_Right  | 1_23   | 3705.000                  | 647000         | 18.00               | 17.24 |
| Low       | 30           | 10             | CP-OFDM 16QAM         | Edge_1RB_Left   | 1_0    | 3705.000                  | 647000         | 18.00               | 17.23 |
| Low       | 30           | 10             | CP-OFDM 16QAM         | Edge_Full_Right | 2_22   | 3705.000                  | 647000         | 18.00               | 16.99 |
| Low       | 30           | 10             | CP-OFDM 16QAM         | Edge_Full_Left  | 2_0    | 3705.000                  | 647000         | 18.00               | 16.96 |
| Low       | 30           | 10             | CP-OFDM 16QAM         | Inner_1RB_Right | 1_22   | 3705.000                  | 647000         | 18.00               | 17.21 |
| Low       | 30           | 10             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3705.000                  | 647000         | 18.00               | 17.28 |
| Low       | 30           | 10             | CP-OFDM 16QAM         | Outer_Full      | 24_0   | 3705.000                  | 647000         | 18.00               | 17.22 |
| Low       | 30           | 15             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3707.500                  | 647167         | 18.00               | 17.11 |
| Low       | 30           | 20             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3710.000                  | 647333         | 18.00               | 16.95 |
| Low       | 30           | 40             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3720.000                  | 648000         | 18.00               | 16.77 |
| Low       | 30           | 50             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3725.000                  | 648333         | 18.00               | 17.06 |
| Low       | 30           | 60             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3730.000                  | 648667         | 18.00               | 16.98 |
| Low       | 30           | 70             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3735.000                  | 649000         | 18.00               | 16.84 |
| Low       | 30           | 80             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3740.000                  | 649333         | 18.00               | 16.62 |
| Low       | 30           | 90             | CP-OFDM 16QAM         | Inner_1RB_Left  | 1_1    | 3745.000                  | 649667         | 18.00               | 16.63 |
| Low       | 30           | 10             | DFT-s-OFDM 16QAM      | Inner_1RB_Left  | 1_1    | 3705.000                  | 647000         | 18.00               | 17.24 |

### N78 (ANT11 DSI2/3)

| Test Freq<br>Description | 5G-n78       |                |                      |                 |        |                           | Power Results (dBm) |       |
|--------------------------|--------------|----------------|----------------------|-----------------|--------|---------------------------|---------------------|-------|
|                          | SCS<br>(kHz) | NR BW<br>(MHz) | Modulation           | RB allocation   |        | NR<br>Test Freq.<br>(MHz) | NR<br>Test CH.      | n78   |
| High                     | 30           | 10             | DFT-s-OFDM QPSK      | Inner_Full      | 12_6   | 3795                      | 653000              | 13.56 |
| Middle-1                 | 30           | 10             | DFT-s-OFDM QPSK      | Inner_Full      | 12_6   | 3672.495                  | 644833              | 13.77 |
| Middle-2                 | 30           | 10             | DFT-s-OFDM QPSK      | Inner_Full      | 12_6   | 3549.99                   | 636666              | 13.78 |
| Middle-3                 | 30           | 10             | DFT-s-OFDM QPSK      | Inner_Full      | 12_6   | 3427.5                    | 628500              | 13.88 |
| Low                      | 30           | 10             | DFT-s-OFDM QPSK      | Inner_Full      | 12_6   | 3305.01                   | 620334              | 14.07 |
| High                     | 30           | 100            | DFT-s-OFDM QPSK      | Inner_Full      | 135_67 | 3750                      | 650000              | 13.60 |
| Middle-1                 | 30           | 100            | DFT-s-OFDM QPSK      | Inner_Full      | 135_67 | 3649.995                  | 643333              | 13.76 |
| Middle-2                 | 30           | 100            | DFT-s-OFDM QPSK      | Inner_Full      | 135_67 | 3549.99                   | 636666              | 13.73 |
| Middle-3                 | 30           | 100            | DFT-s-OFDM QPSK      | Inner_Full      | 135_67 | 3450                      | 628667              | 13.76 |
| Low                      | 30           | 100            | DFT-s-OFDM QPSK      | Inner_Full      | 135_67 | 3350.01                   | 623334              | 14.03 |
| Low                      | 30           | 10             | DFT-s-OFDM PI/2 BPSK | Inner_Full      | 12_6   | 3305.01                   | 620334              | 14.04 |
| Low                      | 30           | 10             | DFT-s-OFDM 16QAM     | Inner_Full      | 12_6   | 3305.01                   | 620334              | 14.05 |
| Low                      | 30           | 10             | DFT-s-OFDM 64QAM     | Inner_Full      | 12_6   | 3305.01                   | 620334              | 14.02 |
| Low                      | 30           | 10             | DFT-s-OFDM 256QAM    | Inner_Full      | 12_6   | 3305.01                   | 620334              | 14.04 |
| Low                      | 30           | 10             | CP-OFDM QPSK         | Inner_Full      | 12_6   | 3305.01                   | 620334              | 14.01 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Inner_Full      | 12_6   | 3305.01                   | 620334              | 14.06 |
| Low                      | 30           | 10             | CP-OFDM 64QAM        | Inner_Full      | 12_6   | 3305.01                   | 620334              | 14.05 |
| Low                      | 30           | 10             | CP-OFDM 256QAM       | Inner_Full      | 12_6   | 3305.01                   | 620334              | 13.99 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Edge_1RB_Right  | 1_23   | 3305.01                   | 620334              | 14.21 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Edge_1RB_Left   | 1_0    | 3305.01                   | 620334              | 14.19 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Edge_Full_Right | 2_22   | 3305.01                   | 620334              | 13.87 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Edge_Full_Left  | 2_0    | 3305.01                   | 620334              | 13.89 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Inner_1RB_Right | 1_22   | 3305.01                   | 620334              | 14.26 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Inner_1RB_Left  | 1_1    | 3305.01                   | 620334              | 14.22 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Outer_Full      | 24_0   | 3305.01                   | 620334              | 14.11 |
| Low                      | 30           | 15             | CP-OFDM 16QAM        | Inner_1RB_Right | 1_36   | 3307.5                    | 620500              | 14.04 |
| Low                      | 30           | 20             | CP-OFDM 16QAM        | Inner_1RB_Right | 1_49   | 3310.02                   | 620668              | 14.07 |
| Low                      | 30           | 25             | CP-OFDM 16QAM        | Inner_1RB_Right | 1_63   | 3312.51                   | 620834              | 13.97 |
| Low                      | 30           | 30             | CP-OFDM 16QAM        | Inner_1RB_Right | 1_76   | 3315                      | 621000              | 14.06 |
| Low                      | 30           | 40             | CP-OFDM 16QAM        | Inner_1RB_Right | 1_104  | 3320.01                   | 621334              | 13.99 |
| Low                      | 30           | 50             | CP-OFDM 16QAM        | Inner_1RB_Right | 1_131  | 3325.02                   | 621668              | 14.00 |
| Low                      | 30           | 60             | CP-OFDM 16QAM        | Inner_1RB_Right | 1_160  | 3330                      | 622000              | 14.09 |
| Low                      | 30           | 70             | CP-OFDM 16QAM        | Inner_1RB_Right | 1_160  | 3335.01                   | 622334              | 14.11 |
| Low                      | 30           | 80             | CP-OFDM 16QAM        | Inner_1RB_Right | 1_215  | 3340.02                   | 622668              | 14.05 |
| Low                      | 30           | 90             | CP-OFDM 16QAM        | Inner_1RB_Right | 1_243  | 3345                      | 623000              | 14.02 |
| Low                      | 30           | 10             | DFT-s-OFDM 16QAM     | Inner_1RB_Right | 1_22   | 3305.01                   | 620334              | 14.18 |

### N78 (ANT11 DSI4)

| Test Freq<br>Description | 5G-n78       |                |                      |                 |        |                           | Power Results (dBm) |       |
|--------------------------|--------------|----------------|----------------------|-----------------|--------|---------------------------|---------------------|-------|
|                          | SCS<br>(kHz) | NR BW<br>(MHz) | Modulation           | RB allocation   |        | NR<br>Test Freq.<br>(MHz) | NR<br>Test CH.      | n78   |
| High                     | 30           | 10             | DFT-s-OFDM QPSK      | Inner_Full      | 12_6   | 3795                      | 653000              | 23.50 |
| Middle-1                 | 30           | 10             | DFT-s-OFDM QPSK      | Inner_Full      | 12_6   | 3672.495                  | 644833              | 23.50 |
| Middle-2                 | 30           | 10             | DFT-s-OFDM QPSK      | Inner_Full      | 12_6   | 3549.99                   | 636666              | 23.50 |
| Middle-3                 | 30           | 10             | DFT-s-OFDM QPSK      | Inner_Full      | 12_6   | 3427.5                    | 628500              | 24.00 |
| Low                      | 30           | 10             | DFT-s-OFDM QPSK      | Inner_Full      | 12_6   | 3305.01                   | 620334              | 24.00 |
| High                     | 30           | 100            | DFT-s-OFDM QPSK      | Inner_Full      | 135_67 | 3750                      | 650000              | 23.50 |
| Middle-1                 | 30           | 100            | DFT-s-OFDM QPSK      | Inner_Full      | 135_67 | 3649.995                  | 643333              | 23.50 |
| Middle-2                 | 30           | 100            | DFT-s-OFDM QPSK      | Inner_Full      | 135_67 | 3549.99                   | 636666              | 23.50 |
| Middle-3                 | 30           | 100            | DFT-s-OFDM QPSK      | Inner_Full      | 135_67 | 3450                      | 628667              | 23.50 |
| Low                      | 30           | 100            | DFT-s-OFDM QPSK      | Inner_Full      | 135_67 | 3350.01                   | 623334              | 24.00 |
| Low                      | 30           | 10             | DFT-s-OFDM PI/2 BPSK | Inner_Full      | 12_6   | 3305.01                   | 620334              | 24.00 |
| Low                      | 30           | 10             | DFT-s-OFDM 16QAM     | Inner_Full      | 12_6   | 3305.01                   | 620334              | 24.00 |
| Low                      | 30           | 10             | DFT-s-OFDM 64QAM     | Inner_Full      | 12_6   | 3305.01                   | 620334              | 22.50 |
| Low                      | 30           | 10             | DFT-s-OFDM 256QAM    | Inner_Full      | 12_6   | 3305.01                   | 620334              | 20.50 |
| Low                      | 30           | 10             | CP-OFDM QPSK         | Inner_Full      | 12_6   | 3305.01                   | 620334              | 23.50 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Inner_Full      | 12_6   | 3305.01                   | 620334              | 23.50 |
| Low                      | 30           | 10             | CP-OFDM 64QAM        | Inner_Full      | 12_6   | 3305.01                   | 620334              | 21.50 |
| Low                      | 30           | 10             | CP-OFDM 256QAM       | Inner_Full      | 12_6   | 3305.01                   | 620334              | 18.50 |
| Low                      | 30           | 10             | DFT-s-OFDM PI/2 BPSK | Edge_1RB_Right  | 1_23   | 3305.01                   | 620334              | 23.50 |
| Low                      | 30           | 10             | DFT-s-OFDM PI/2 BPSK | Edge_1RB_Left   | 1_0    | 3305.01                   | 620334              | 23.50 |
| Low                      | 30           | 10             | DFT-s-OFDM PI/2 BPSK | Edge_Full_Right | 2_22   | 3305.01                   | 620334              | 23.50 |
| Low                      | 30           | 10             | DFT-s-OFDM PI/2 BPSK | Edge_Full_Left  | 2_0    | 3305.01                   | 620334              | 23.50 |
| Low                      | 30           | 10             | DFT-s-OFDM PI/2 BPSK | Inner_1RB_Right | 1_22   | 3305.01                   | 620334              | 24.00 |
| Low                      | 30           | 10             | DFT-s-OFDM PI/2 BPSK | Inner_1RB_Left  | 1_1    | 3305.01                   | 620334              | 24.00 |
| Low                      | 30           | 10             | DFT-s-OFDM PI/2 BPSK | Outer_Full      | 24_0   | 3305.01                   | 620334              | 23.50 |
| Low                      | 30           | 15             | DFT-s-OFDM PI/2 BPSK | Inner_Full      | 18_9   | 3307.5                    | 620500              | 24.00 |
| Low                      | 30           | 20             | DFT-s-OFDM PI/2 BPSK | Inner_Full      | 25_12  | 3310.02                   | 620668              | 24.00 |
| Low                      | 30           | 25             | DFT-s-OFDM PI/2 BPSK | Inner_Full      | 32_16  | 3312.51                   | 620834              | 24.00 |
| Low                      | 30           | 30             | DFT-s-OFDM PI/2 BPSK | Inner_Full      | 36_18  | 3315                      | 621000              | 24.00 |
| Low                      | 30           | 40             | DFT-s-OFDM PI/2 BPSK | Inner_Full      | 50_25  | 3320.01                   | 621334              | 24.00 |
| Low                      | 30           | 50             | DFT-s-OFDM PI/2 BPSK | Inner_Full      | 64_32  | 3325.02                   | 621668              | 24.00 |
| Low                      | 30           | 60             | DFT-s-OFDM PI/2 BPSK | Inner_Full      | 80_40  | 3330                      | 622000              | 24.00 |
| Low                      | 30           | 70             | DFT-s-OFDM PI/2 BPSK | Inner_Full      | 80_40  | 3335.01                   | 622334              | 24.00 |
| Low                      | 30           | 80             | DFT-s-OFDM PI/2 BPSK | Inner_Full      | 108_54 | 3340.02                   | 622668              | 24.00 |
| Low                      | 30           | 90             | DFT-s-OFDM PI/2 BPSK | Inner_Full      | 120_60 | 3345                      | 623000              | 24.00 |
| Low                      | 30           | 50             | CP-OFDM QPSK         | Inner_Full      | 64_32  | 3325.02                   | 621668              | 24.00 |

### N78 (ANT11 DSI8/9/10)

| Test Freq<br>Description | 5G-n78       |                |                      |                 |        |                           | Power Results (dBm) |       |
|--------------------------|--------------|----------------|----------------------|-----------------|--------|---------------------------|---------------------|-------|
|                          | SCS<br>(kHz) | NR BW<br>(MHz) | Modulation           | RB allocation   |        | NR<br>Test Freq.<br>(MHz) | NR<br>Test CH.      | n78   |
| High                     | 30           | 10             | DFT-s-OFDM QPSK      | Inner_Full      | 12_6   | 3795                      | 653000              | 15.05 |
| Middle-1                 | 30           | 10             | DFT-s-OFDM QPSK      | Inner_Full      | 12_6   | 3672.495                  | 644833              | 15.10 |
| Middle-2                 | 30           | 10             | DFT-s-OFDM QPSK      | Inner_Full      | 12_6   | 3549.99                   | 636666              | 15.35 |
| Middle-3                 | 30           | 10             | DFT-s-OFDM QPSK      | Inner_Full      | 12_6   | 3427.5                    | 628500              | 15.41 |
| Low                      | 30           | 10             | DFT-s-OFDM QPSK      | Inner_Full      | 12_6   | 3305.01                   | 620334              | 15.61 |
| High                     | 30           | 100            | DFT-s-OFDM QPSK      | Inner_Full      | 135_67 | 3750                      | 650000              | 15.04 |
| Middle-1                 | 30           | 100            | DFT-s-OFDM QPSK      | Inner_Full      | 135_67 | 3649.995                  | 643333              | 15.10 |
| Middle-2                 | 30           | 100            | DFT-s-OFDM QPSK      | Inner_Full      | 135_67 | 3549.99                   | 636666              | 15.35 |
| Middle-3                 | 30           | 100            | DFT-s-OFDM QPSK      | Inner_Full      | 135_67 | 3450                      | 628667              | 15.35 |
| Low                      | 30           | 100            | DFT-s-OFDM QPSK      | Inner_Full      | 135_67 | 3350.01                   | 623334              | 15.49 |
| Low                      | 30           | 10             | DFT-s-OFDM PI/2 BPSK | Inner_Full      | 12_6   | 3305.01                   | 620334              | 15.53 |
| Low                      | 30           | 10             | DFT-s-OFDM 16QAM     | Inner_Full      | 12_6   | 3305.01                   | 620334              | 15.51 |
| Low                      | 30           | 10             | DFT-s-OFDM 64QAM     | Inner_Full      | 12_6   | 3305.01                   | 620334              | 15.48 |
| Low                      | 30           | 10             | DFT-s-OFDM 256QAM    | Inner_Full      | 12_6   | 3305.01                   | 620334              | 15.50 |
| Low                      | 30           | 10             | CP-OFDM QPSK         | Inner_Full      | 12_6   | 3305.01                   | 620334              | 15.47 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Inner_Full      | 12_6   | 3305.01                   | 620334              | 15.68 |
| Low                      | 30           | 10             | CP-OFDM 64QAM        | Inner_Full      | 12_6   | 3305.01                   | 620334              | 15.51 |
| Low                      | 30           | 10             | CP-OFDM 256QAM       | Inner_Full      | 12_6   | 3305.01                   | 620334              | 14.94 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Edge_1RB_Right  | 1_23   | 3305.01                   | 620334              | 15.67 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Edge_1RB_Left   | 1_0    | 3305.01                   | 620334              | 15.67 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Edge_Full_Right | 2_22   | 3305.01                   | 620334              | 15.38 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Edge_Full_Left  | 2_0    | 3305.01                   | 620334              | 15.42 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Inner_1RB_Right | 1_22   | 3305.01                   | 620334              | 15.72 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Inner_1RB_Left  | 1_1    | 3305.01                   | 620334              | 15.73 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Outer_Full      | 24_0   | 3305.01                   | 620334              | 15.65 |
| Low                      | 30           | 15             | CP-OFDM 16QAM        | Inner_Full      | 18_9   | 3307.5                    | 620500              | 15.63 |
| Low                      | 30           | 20             | CP-OFDM 16QAM        | Inner_Full      | 25_12  | 3310.02                   | 620668              | 15.61 |
| Low                      | 30           | 25             | CP-OFDM 16QAM        | Inner_Full      | 32_16  | 3312.51                   | 620834              | 15.61 |
| Low                      | 30           | 30             | CP-OFDM 16QAM        | Inner_Full      | 36_18  | 3315                      | 621000              | 15.60 |
| Low                      | 30           | 40             | CP-OFDM 16QAM        | Inner_Full      | 50_25  | 3320.01                   | 621334              | 15.53 |
| Low                      | 30           | 50             | CP-OFDM 16QAM        | Inner_Full      | 64_32  | 3325.02                   | 621668              | 15.52 |
| Low                      | 30           | 60             | CP-OFDM 16QAM        | Inner_Full      | 80_40  | 3330                      | 622000              | 15.60 |
| Low                      | 30           | 70             | CP-OFDM 16QAM        | Inner_Full      | 80_40  | 3335.01                   | 622334              | 15.44 |
| Low                      | 30           | 80             | CP-OFDM 16QAM        | Inner_Full      | 108_54 | 3340.02                   | 622668              | 15.52 |
| Low                      | 30           | 90             | CP-OFDM 16QAM        | Inner_Full      | 120_60 | 3345                      | 623000              | 15.48 |
| Low                      | 30           | 10             | DFT-s-OFDM 16QAM     | Inner_1RB_Left  | 1_1    | 3305.01                   | 620334              | 15.68 |

### N78 (ANT12 DSI2/3)

| Test Freq<br>Description | 5G-n78       |                |                      |                 |        |                           | Power Results (dBm) |       |
|--------------------------|--------------|----------------|----------------------|-----------------|--------|---------------------------|---------------------|-------|
|                          | SCS<br>(kHz) | NR BW<br>(MHz) | Modulation           | RB allocation   |        | NR<br>Test Freq.<br>(MHz) | NR<br>Test CH.      | n78   |
| High                     | 30           | 10             | DFT-s-OFDM QPSK      | Inner_Full      | 12_6   | 3795                      | 653000              | 16.70 |
| Middle-1                 | 30           | 10             | DFT-s-OFDM QPSK      | Inner_Full      | 12_6   | 3672.495                  | 644833              | 16.74 |
| Middle-2                 | 30           | 10             | DFT-s-OFDM QPSK      | Inner_Full      | 12_6   | 3549.99                   | 636666              | 16.96 |
| Middle-3                 | 30           | 10             | DFT-s-OFDM QPSK      | Inner_Full      | 12_6   | 3427.5                    | 628500              | 17.02 |
| Low                      | 30           | 10             | DFT-s-OFDM QPSK      | Inner_Full      | 12_6   | 3305.01                   | 620334              | 17.20 |
| High                     | 30           | 100            | DFT-s-OFDM QPSK      | Inner_Full      | 135_67 | 3750                      | 650000              | 16.66 |
| Middle-1                 | 30           | 100            | DFT-s-OFDM QPSK      | Inner_Full      | 135_67 | 3649.995                  | 643333              | 16.72 |
| Middle-2                 | 30           | 100            | DFT-s-OFDM QPSK      | Inner_Full      | 135_67 | 3549.99                   | 636666              | 16.95 |
| Middle-3                 | 30           | 100            | DFT-s-OFDM QPSK      | Inner_Full      | 135_67 | 3450                      | 628667              | 16.95 |
| Low                      | 30           | 100            | DFT-s-OFDM QPSK      | Inner_Full      | 135_67 | 3350.01                   | 623334              | 17.07 |
| Low                      | 30           | 10             | DFT-s-OFDM PI/2 BPSK | Inner_Full      | 12_6   | 3305.01                   | 620334              | 17.18 |
| Low                      | 30           | 10             | DFT-s-OFDM 16QAM     | Inner_Full      | 12_6   | 3305.01                   | 620334              | 17.16 |
| Low                      | 30           | 10             | DFT-s-OFDM 64QAM     | Inner_Full      | 12_6   | 3305.01                   | 620334              | 17.13 |
| Low                      | 30           | 10             | DFT-s-OFDM 256QAM    | Inner_Full      | 12_6   | 3305.01                   | 620334              | 17.15 |
| Low                      | 30           | 10             | CP-OFDM QPSK         | Inner_Full      | 12_6   | 3305.01                   | 620334              | 17.12 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Inner_Full      | 12_6   | 3305.01                   | 620334              | 17.31 |
| Low                      | 30           | 10             | CP-OFDM 64QAM        | Inner_Full      | 12_6   | 3305.01                   | 620334              | 17.16 |
| Low                      | 30           | 10             | CP-OFDM 256QAM       | Inner_Full      | 12_6   | 3305.01                   | 620334              | 16.65 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Edge_1RB_Right  | 1_23   | 3305.01                   | 620334              | 17.26 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Edge_1RB_Left   | 1_0    | 3305.01                   | 620334              | 17.25 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Edge_Full_Right | 2_22   | 3305.01                   | 620334              | 16.99 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Edge_Full_Left  | 2_0    | 3305.01                   | 620334              | 17.02 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Inner_1RB_Right | 1_22   | 3305.01                   | 620334              | 17.29 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Inner_1RB_Left  | 1_1    | 3305.01                   | 620334              | 17.30 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Outer_Full      | 24_0   | 3305.01                   | 620334              | 17.23 |
| Low                      | 30           | 15             | CP-OFDM 16QAM        | Inner_Full      | 19_9   | 3307.5                    | 620500              | 17.21 |
| Low                      | 30           | 20             | CP-OFDM 16QAM        | Inner_Full      | 25_12  | 3310.02                   | 620668              | 17.19 |
| Low                      | 30           | 25             | CP-OFDM 16QAM        | Inner_Full      | 32_16  | 3312.51                   | 620834              | 17.18 |
| Low                      | 30           | 30             | CP-OFDM 16QAM        | Inner_Full      | 36_18  | 3315                      | 621000              | 17.22 |
| Low                      | 30           | 40             | CP-OFDM 16QAM        | Inner_Full      | 53_26  | 3320.01                   | 621334              | 17.12 |
| Low                      | 30           | 50             | CP-OFDM 16QAM        | Inner_Full      | 67_33  | 3325.02                   | 621668              | 17.11 |
| Low                      | 30           | 60             | CP-OFDM 16QAM        | Inner_Full      | 81_40  | 3330                      | 622000              | 17.18 |
| Low                      | 30           | 70             | CP-OFDM 16QAM        | Inner_Full      | 81_40  | 3335.01                   | 622334              | 17.09 |
| Low                      | 30           | 80             | CP-OFDM 16QAM        | Inner_Full      | 109_54 | 3340.02                   | 622668              | 17.11 |
| Low                      | 30           | 90             | CP-OFDM 16QAM        | Inner_Full      | 123_61 | 3345                      | 623000              | 17.08 |

### N78 (ANT12 DSI4)

| Test Freq<br>Description | 5G-n78       |                |                      |                 |        |                           | Power Results (dBm) |       |
|--------------------------|--------------|----------------|----------------------|-----------------|--------|---------------------------|---------------------|-------|
|                          | SCS<br>(kHz) | NR BW<br>(MHz) | Modulation           | RB allocation   |        | NR<br>Test Freq.<br>(MHz) | NR<br>Test CH.      | n78   |
| High                     | 30           | 10             | DFT-s-OFDM QPSK      | Inner_Full      | 12_6   | 3795                      | 653000              | 19.27 |
| Middle-1                 | 30           | 10             | DFT-s-OFDM QPSK      | Inner_Full      | 12_6   | 3672.495                  | 644833              | 19.34 |
| Middle-2                 | 30           | 10             | DFT-s-OFDM QPSK      | Inner_Full      | 12_6   | 3549.99                   | 636666              | 19.55 |
| Middle-3                 | 30           | 10             | DFT-s-OFDM QPSK      | Inner_Full      | 12_6   | 3427.5                    | 628500              | 19.61 |
| Low                      | 30           | 10             | DFT-s-OFDM QPSK      | Inner_Full      | 12_6   | 3305.01                   | 620334              | 19.75 |
| High                     | 30           | 100            | DFT-s-OFDM QPSK      | Inner_Full      | 135_67 | 3750                      | 650000              | 19.26 |
| Middle-1                 | 30           | 100            | DFT-s-OFDM QPSK      | Inner_Full      | 135_67 | 3649.995                  | 643333              | 19.35 |
| Middle-2                 | 30           | 100            | DFT-s-OFDM QPSK      | Inner_Full      | 135_67 | 3549.99                   | 636666              | 19.53 |
| Middle-3                 | 30           | 100            | DFT-s-OFDM QPSK      | Inner_Full      | 135_67 | 3450                      | 628667              | 19.50 |
| Low                      | 30           | 100            | DFT-s-OFDM QPSK      | Inner_Full      | 135_67 | 3350.01                   | 623334              | 19.68 |
| Low                      | 30           | 10             | DFT-s-OFDM PI/2 BPSK | Inner_Full      | 12_6   | 3305.01                   | 620334              | 19.77 |
| Low                      | 30           | 10             | DFT-s-OFDM 16QAM     | Inner_Full      | 12_6   | 3305.01                   | 620334              | 19.74 |
| Low                      | 30           | 10             | DFT-s-OFDM 64QAM     | Inner_Full      | 12_6   | 3305.01                   | 620334              | 19.68 |
| Low                      | 30           | 10             | DFT-s-OFDM 256QAM    | Inner_Full      | 12_6   | 3305.01                   | 620334              | 19.50 |
| Low                      | 30           | 10             | CP-OFDM QPSK         | Inner_Full      | 12_6   | 3305.01                   | 620334              | 19.67 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Inner_Full      | 12_6   | 3305.01                   | 620334              | 19.88 |
| Low                      | 30           | 10             | CP-OFDM 64QAM        | Inner_Full      | 12_6   | 3305.01                   | 620334              | 19.71 |
| Low                      | 30           | 10             | CP-OFDM 256QAM       | Inner_Full      | 12_6   | 3305.01                   | 620334              | 17.50 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Edge_1RB_Right  | 1_23   | 3305.01                   | 620334              | 19.79 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Edge_1RB_Left   | 1_0    | 3305.01                   | 620334              | 19.77 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Edge_Full_Right | 2_22   | 3305.01                   | 620334              | 19.54 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Edge_Full_Left  | 2_0    | 3305.01                   | 620334              | 19.60 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Inner_1RB_Right | 1_22   | 3305.01                   | 620334              | 19.91 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Inner_1RB_Left  | 1_1    | 3305.01                   | 620334              | 19.85 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Outer_Full      | 24_0   | 3305.01                   | 620334              | 19.79 |
| Low                      | 30           | 15             | CP-OFDM 16QAM        | Inner_1RB_Right | 1_36   | 3307.5                    | 620500              | 19.75 |
| Low                      | 30           | 20             | CP-OFDM 16QAM        | Inner_1RB_Right | 1_49   | 3310.02                   | 620668              | 19.69 |
| Low                      | 30           | 25             | CP-OFDM 16QAM        | Inner_1RB_Right | 1_63   | 3312.51                   | 620834              | 19.69 |
| Low                      | 30           | 30             | CP-OFDM 16QAM        | Inner_1RB_Right | 1_76   | 3315                      | 621000              | 19.64 |
| Low                      | 30           | 40             | CP-OFDM 16QAM        | Inner_1RB_Right | 1_104  | 3320.01                   | 621334              | 19.50 |
| Low                      | 30           | 50             | CP-OFDM 16QAM        | Inner_1RB_Right | 1_131  | 3325.02                   | 621668              | 19.67 |
| Low                      | 30           | 60             | CP-OFDM 16QAM        | Inner_1RB_Right | 1_160  | 3330                      | 622000              | 19.48 |
| Low                      | 30           | 70             | CP-OFDM 16QAM        | Inner_1RB_Right | 1_160  | 3335.01                   | 622334              | 19.37 |
| Low                      | 30           | 80             | CP-OFDM 16QAM        | Inner_1RB_Right | 1_215  | 3340.02                   | 622668              | 19.14 |
| Low                      | 30           | 90             | CP-OFDM 16QAM        | Inner_1RB_Right | 1_243  | 3345                      | 623000              | 19.29 |
| Low                      | 30           | 10             | DFT-s-OFDM 16QAM     | Inner_1RB_Right | 1_22   | 3305.01                   | 620334              | 19.86 |

### N78 (ANT12 DSI8/9/10)

| Test Freq<br>Description | 5G-n78       |                |                      |                 |        |                           | Power Results (dBm) |       |
|--------------------------|--------------|----------------|----------------------|-----------------|--------|---------------------------|---------------------|-------|
|                          | SCS<br>(kHz) | NR BW<br>(MHz) | Modulation           | RB allocation   |        | NR<br>Test Freq.<br>(MHz) | NR<br>Test CH.      | n78   |
| High                     | 30           | 10             | DFT-s-OFDM QPSK      | Inner_Full      | 12_6   | 3795                      | 653000              | 18.30 |
| Middle-1                 | 30           | 10             | DFT-s-OFDM QPSK      | Inner_Full      | 12_6   | 3672.495                  | 644833              | 18.34 |
| Middle-2                 | 30           | 10             | DFT-s-OFDM QPSK      | Inner_Full      | 12_6   | 3549.99                   | 636666              | 18.54 |
| Middle-3                 | 30           | 10             | DFT-s-OFDM QPSK      | Inner_Full      | 12_6   | 3427.5                    | 628500              | 18.59 |
| Low                      | 30           | 10             | DFT-s-OFDM QPSK      | Inner_Full      | 12_6   | 3305.01                   | 620334              | 18.75 |
| High                     | 30           | 100            | DFT-s-OFDM QPSK      | Inner_Full      | 135_67 | 3750                      | 650000              | 18.29 |
| Middle-1                 | 30           | 100            | DFT-s-OFDM QPSK      | Inner_Full      | 135_67 | 3649.995                  | 643333              | 18.34 |
| Middle-2                 | 30           | 100            | DFT-s-OFDM QPSK      | Inner_Full      | 135_67 | 3549.99                   | 636666              | 18.54 |
| Middle-3                 | 30           | 100            | DFT-s-OFDM QPSK      | Inner_Full      | 135_67 | 3450                      | 628667              | 18.54 |
| Low                      | 30           | 100            | DFT-s-OFDM QPSK      | Inner_Full      | 135_67 | 3350.01                   | 623334              | 18.65 |
| Low                      | 30           | 10             | DFT-s-OFDM PI/2 BPSK | Inner_Full      | 12_6   | 3305.01                   | 620334              | 18.77 |
| Low                      | 30           | 10             | DFT-s-OFDM 16QAM     | Inner_Full      | 12_6   | 3305.01                   | 620334              | 18.76 |
| Low                      | 30           | 10             | DFT-s-OFDM 64QAM     | Inner_Full      | 12_6   | 3305.01                   | 620334              | 18.73 |
| Low                      | 30           | 10             | DFT-s-OFDM 256QAM    | Inner_Full      | 12_6   | 3305.01                   | 620334              | 18.75 |
| Low                      | 30           | 10             | CP-OFDM QPSK         | Inner_Full      | 12_6   | 3305.01                   | 620334              | 18.72 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Inner_Full      | 12_6   | 3305.01                   | 620334              | 18.89 |
| Low                      | 30           | 10             | CP-OFDM 64QAM        | Inner_Full      | 12_6   | 3305.01                   | 620334              | 18.76 |
| Low                      | 30           | 10             | CP-OFDM 256QAM       | Inner_Full      | 12_6   | 3305.01                   | 620334              | 18.30 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Edge_1RB_Right  | 1_23   | 3305.01                   | 620334              | 18.78 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Edge_1RB_Left   | 1_0    | 3305.01                   | 620334              | 18.78 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Edge_Full_Right | 2_22   | 3305.01                   | 620334              | 18.54 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Edge_Full_Left  | 2_0    | 3305.01                   | 620334              | 18.57 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Inner_1RB_Right | 1_22   | 3305.01                   | 620334              | 18.81 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Inner_1RB_Left  | 1_1    | 3305.01                   | 620334              | 18.82 |
| Low                      | 30           | 10             | CP-OFDM 16QAM        | Outer_Full      | 24_0   | 3305.01                   | 620334              | 18.76 |
| Low                      | 30           | 15             | CP-OFDM 16QAM        | Inner_Full      | 19_9   | 3307.5                    | 620500              | 18.74 |
| Low                      | 30           | 20             | CP-OFDM 16QAM        | Inner_Full      | 25_12  | 3310.02                   | 620668              | 18.72 |
| Low                      | 30           | 25             | CP-OFDM 16QAM        | Inner_Full      | 32_16  | 3312.51                   | 620834              | 18.72 |
| Low                      | 30           | 30             | CP-OFDM 16QAM        | Inner_Full      | 36_18  | 3315                      | 621000              | 18.71 |
| Low                      | 30           | 40             | CP-OFDM 16QAM        | Inner_Full      | 53_26  | 3320.01                   | 621334              | 18.66 |
| Low                      | 30           | 50             | CP-OFDM 16QAM        | Inner_Full      | 67_33  | 3325.02                   | 621668              | 18.65 |
| Low                      | 30           | 60             | CP-OFDM 16QAM        | Inner_Full      | 81_40  | 3330                      | 622000              | 18.71 |
| Low                      | 30           | 70             | CP-OFDM 16QAM        | Inner_Full      | 81_40  | 3335.01                   | 622334              | 18.66 |
| Low                      | 30           | 80             | CP-OFDM 16QAM        | Inner_Full      | 109_54 | 3340.02                   | 622668              | 18.65 |
| Low                      | 30           | 90             | CP-OFDM 16QAM        | Inner_Full      | 123_61 | 3345                      | 623000              | 18.62 |

## 11.5 Wi-Fi and BT Measurement result

When the same transmission mode configurations have the same maximum output power on the same channel for the 802.11 a/n/ac/ax modes, the channel in the lower order/sequence 802.11 mode (i.e. a, n, ac then ax) is selected. Therefore the SAR measurements performed for the 802.11n/ac modes, as the lowest order modulation, cover 802.11ax modes.

When the specified maximum output power is the same for both UNII 1 and UNII 2A, begin SAR measurements in UNII 2A with the channel with the highest measured output power. If the reported SAR for UNII 2A is  $\leq 1.2$  W/kg, SAR is not required for UNII 1; otherwise treat the remaining bands separately and test them independently for SAR.

According to KDB 248227 D01, simultaneous SAR provisions in KDB 447498 D01 apply to determine simultaneous transmission SAR test exclusion for Wi-Fi MIMO. If the sum of 1-g single transmission chain SAR measurements is  $< 1.6$  W/kg and/or the MIMO output power is equal or less than a single chain, then no additional SAR measurements for simultaneously at the specified maximum output power of MIMO operation.

When antennas are spatially separated to the extent that SAR distributions do not overlap and can be treated independently, SAR compliance for simultaneous transmission is determined separately for each individual antenna.

### WIFI Tune up

| Mode                    | Band                     | Full power& Body<br>Standalone<br>transmission | Head(Receiver on)                                           | Body(Receiver off)                               |
|-------------------------|--------------------------|------------------------------------------------|-------------------------------------------------------------|--------------------------------------------------|
|                         |                          |                                                | Standalone&Simultaneous<br>transmission<br>WWAN+WLAN2.4G/5G | Simultaneous<br>transmission<br>WWAN+WLAN2.4G/5G |
|                         |                          | Power reduce Level 1                           | Power reduce Level 2                                        | Power reduce Level 3                             |
| 2.4G                    | 802.11b CH1-11           | 20.0                                           | 13                                                          | 15                                               |
|                         | 802.11g CH1-11           | 18                                             | 11                                                          | 13                                               |
|                         | 802.11nHT20<br>CH1-11    | 17                                             | 10                                                          | 12                                               |
| 5G B1<br>(5.15-5.25GHz) | 802.11a CH36-48          | 19                                             | 12                                                          | 14.5                                             |
|                         | 802.11nHT20<br>CH36-48   | 17                                             | 10                                                          | 12.5                                             |
|                         | 802.11nHT40<br>CH38-46   | 16.5                                           | 9.5                                                         | 12                                               |
|                         | 802.11acVHT20<br>CH36-48 | 16.5                                           | 9.5                                                         | 12                                               |
|                         | 802.11acVHT40<br>CH38-46 | 16                                             | 9                                                           | 11.5                                             |
|                         | 802.11acVHT80<br>CH42    | 14                                             | 7                                                           | 9.5                                              |
| 5G B2                   | 802.11a CH52-64          | 19                                             | 12                                                          | 15.5                                             |

|                         |                            |      |      |      |
|-------------------------|----------------------------|------|------|------|
| (5.25-5.35GHz)          | 802.11nHT20<br>CH52-64     | 17   | 10   | 13.5 |
|                         | 802.11nHT40<br>CH54-62     | 16.5 | 9.5  | 13   |
|                         | 802.11acVHT20<br>CH52-64   | 16.5 | 9.5  | 13   |
|                         | 802.11acVHT40<br>CH54-62   | 16   | 9    | 12.5 |
|                         | 802.11acVHT80<br>CH58      | 14   | 7    | 10.5 |
| 5G<br>B3(5.47-5.725GHz) | 802.11a CH100-132          | 18.5 | 14   | 17   |
|                         | 802.11a CH136-144          | 19   | 15   | 17.5 |
|                         | 802.11nHT20<br>CH100-140   | 17   | 12   | 15   |
|                         | 802.11nHT40<br>CH102-134   | 16.5 | 11.5 | 14.5 |
|                         | 802.11acVHT20<br>CH100-140 | 16.5 | 11.5 | 14.5 |
|                         | 802.11acVHT40<br>CH102-134 | 16   | 11   | 14   |
|                         | 802.11acVHT80<br>CH106-122 | 14   | 9    | 12   |
| 5G<br>B4(5.725-5.85GHz) | 802.11a CH149-165          | 19.5 | 16   | 18.5 |
|                         | 802.11nHT20<br>CH149-165   | 17   | 12.5 | 15.5 |
|                         | 802.11nHT40<br>CH151-159   | 16.5 | 12   | 15   |
|                         | 802.11acVHT20<br>CH149-165 | 16.5 | 12   | 15   |
|                         | 802.11acVHT40<br>CH151-159 | 16   | 11.5 | 14.5 |
|                         | 802.11acVHT80<br>CH155     | 14   | 9.5  | 12.5 |

**The maximum output power for WiFi 2.4G – Head(receiver on)**

|               |                   |       |
|---------------|-------------------|-------|
| 802.11b       | Channel\data rate | 1Mbps |
| WLAN2450      | 11(2462MHz)       | 12.33 |
|               | 6(2437(MHz)       | 12.65 |
|               | 1(2412MHz)        | 12.51 |
|               | TUNE UP           | 13.00 |
| 802.11g       | Channel\data rate | 6Mbps |
| WLAN2450      | 11(2462MHz)       | 10.27 |
|               | 6(2437(MHz)       | 10.26 |
|               | 1(2412MHz)        | 10.36 |
|               | TUNE UP           | 11.00 |
| 802.11n-20MHz | Channel\data rate | MCS0  |
| WLAN2450      | 11(2462MHz)       | 9.23  |
|               | 6(2437(MHz)       | 9.29  |
|               | 1(2412MHz)        | 9.37  |
|               | TUNE UP           | 10.00 |

**The maximum output power for WiFi 2.4G - Body(receiver off-standalone)**

|               |                   |       |
|---------------|-------------------|-------|
| 802.11b       | Channel\data rate | 1Mbps |
| WLAN2450      | 11(2462MHz)       | 19.16 |
|               | 6(2437(MHz)       | 19.18 |
|               | 1(2412MHz)        | 19.14 |
|               | Tune up           | 20.00 |
| 802.11g       | Channel\data rate | 6Mbps |
| WLAN2450      | 11(2462MHz)       | 17.05 |
|               | 6(2437(MHz)       | 17.10 |
|               | 1(2412MHz)        | 17.12 |
|               | Tune up           | 18.00 |
| 802.11n-20MHz | Channel\data rate | MCS0  |
| WLAN2450      | 11(2462MHz)       | 16.05 |
|               | 6(2437(MHz)       | 16.07 |
|               | 1(2412MHz)        | 15.99 |
|               | Tune up           | 17.00 |

**The maximum output power for WiFi 2.4G - Body(receiver off- simultaneous transmission)**

|               |                   |       |
|---------------|-------------------|-------|
| 802.11b       | Channel\data rate | 1Mbps |
| WLAN2450      | 11(2462MHz)       | 14.35 |
|               | 6(2437(MHz)       | 14.36 |
|               | 1(2412MHz)        | 14.33 |
|               | Tune up           | 15.00 |
| 802.11g       | Channel\data rate | 6Mbps |
| WLAN2450      | 11(2462MHz)       | 12.28 |
|               | 6(2437(MHz)       | 12.29 |
|               | 1(2412MHz)        | 12.33 |
|               | Tune up           | 13.00 |
| 802.11n-20MHz | Channel\data rate | MCS0  |
| WLAN2450      | 11(2462MHz)       | 11.13 |
|               | 6(2437(MHz)       | 11.19 |
|               | 1(2412MHz)        | 11.22 |
|               | Tune up           | 12.00 |

### The maximum output power for WiFi 5G- Head(receiver on)

| 802.11a(dBm)      |       |
|-------------------|-------|
| Channel\data rate | 6Mbps |
| 36(5180 MHz)      | 10.69 |
| 40(5200 MHz)      | 10.84 |
| 44(5220 MHz)      | 10.27 |
| 48(5240 MHz)      | 10.55 |
| Tune up           | 12.00 |
| 52(5260 MHz)      | 10.63 |
| 56(5280 MHz)      | 10.52 |
| 60(5300 MHz)      | 10.80 |
| 64(5320 MHz)      | 10.86 |
| Tune up           | 12.00 |
| 100(5500 MHz)     | 12.41 |
| 104(5520 MHz)     | 13.07 |
| 108(5540 MHz)     | 13.18 |
| 112(5560 MHz)     | 13.08 |
| 116(5580 MHz)     | 12.68 |
| 120(5600 MHz)     | 12.83 |
| 124(5620 MHz)     | 12.81 |
| 128(5640 MHz)     | 12.83 |
| 132(5660 MHz)     | 12.95 |
| Tune up           | 14.00 |
| 136(5680 MHz)     | 13.52 |
| 140(5700 MHz)     | 13.83 |
| 144(5720 MHz)     | 13.99 |
| Tune up           | 15.00 |
| 149(5745 MHz)     | 14.49 |
| 153(5765 MHz)     | 14.45 |
| 157(5785 MHz)     | 14.38 |
| 161(5805 MHz)     | 14.33 |
| 165(5825 MHz)     | 14.28 |
| Tune up           | 16.00 |

### The maximum output power for WiFi 5G- Body(receiver off-standalone)

| 802.11a(dBm)      |       |
|-------------------|-------|
| Channel\data rate | 6Mbps |
| 36(5180 MHz)      | 17.27 |
| 40(5200 MHz)      | 17.43 |
| 44(5220 MHz)      | 17.45 |
| 48(5240 MHz)      | 17.38 |
| Tune up           | 19.00 |
| 52(5260 MHz)      | 17.32 |
| 56(5280 MHz)      | 17.45 |
| 60(5300 MHz)      | 17.44 |
| 64(5320 MHz)      | 17.63 |
| Tune up           | 19.00 |
| 100(5500 MHz)     | 17.20 |
| 104(5520 MHz)     | 16.75 |
| 108(5540 MHz)     | 17.62 |
| 112(5560 MHz)     | 17.29 |
| 116(5580 MHz)     | 17.26 |
| 120(5600 MHz)     | 16.79 |
| 124(5620 MHz)     | 16.88 |
| 128(5640 MHz)     | 16.90 |
| 132(5660 MHz)     | 16.82 |
| Tune up           | 18.50 |
| 136(5680 MHz)     | 17.55 |
| 140(5700 MHz)     | 17.70 |
| 144(5720 MHz)     | 18.18 |
| Tune up           | 19.00 |
| 149(5745 MHz)     | 18.35 |
| 153(5765 MHz)     | 18.15 |
| 157(5785 MHz)     | 17.72 |
| 161(5805 MHz)     | 17.88 |
| 165(5825 MHz)     | 18.06 |
| Tune up           | 19.50 |

**The maximum output power for WiFi 5G - Body(receiver off- simultaneous transmission)**

| 802.11a(dBm)      |       |
|-------------------|-------|
| Channel\data rate | 6Mbps |
| 36(5180 MHz)      | 13.36 |
| 40(5200 MHz)      | 13.51 |
| 44(5220 MHz)      | 13.08 |
| 48(5240 MHz)      | 13.11 |
| Tune up           | 14.50 |
| 52(5260 MHz)      | 13.67 |
| 56(5280 MHz)      | 14.22 |
| 60(5300 MHz)      | 14.34 |
| 64(5320 MHz)      | 14.49 |
| Tune up           | 15.50 |
| 100(5500 MHz)     | 15.21 |
| 104(5520 MHz)     | 15.51 |
| 108(5540 MHz)     | 16.09 |
| 112(5560 MHz)     | 16.15 |
| 116(5580 MHz)     | 15.79 |
| 120(5600 MHz)     | 15.52 |
| 124(5620 MHz)     | 15.44 |
| 128(5640 MHz)     | 15.46 |
| 132(5660 MHz)     | 15.60 |
| Tune up           | 17.00 |
| 136(5680 MHz)     | 15.83 |
| 140(5700 MHz)     | 16.23 |
| 144(5720 MHz)     | 16.59 |
| Tune up           | 17.50 |
| 149(5745 MHz)     | 17.28 |
| 153(5765 MHz)     | 17.07 |
| 157(5785 MHz)     | 16.66 |
| 161(5805 MHz)     | 16.73 |
| 165(5825 MHz)     | 17.01 |
| Tune up           | 18.50 |

The average conducted power for BT is as following:

| Mode    | GFSK      |            |            | EDR2M-4_DQPSK |            |            | EDR3M-8DPSK |            |            |
|---------|-----------|------------|------------|---------------|------------|------------|-------------|------------|------------|
| Channel | Channel 0 | Channel 39 | Channel 78 | Channel 0     | Channel 39 | Channel 78 | Channel 0   | Channel 39 | Channel 78 |
| power   | 8.99      | 9.10       | 9.61       | 7.95          | 8.05       | 8.76       | 7.95        | 8.04       | 8.76       |
| Tune up | 10.5      | 10.5       | 10.5       | 9.5           | 9.5        | 9.5        | 9.5         | 9.5        | 9.5        |

## 12 Antenna Location

### 12.1 Transmit Antenna Separation Distances

The detail for transmit antenna separation distances is described in the additional document:

Appendix to test report No.I21Z62219-SEM01

The photos of SAR test

### 12.2 SAR Measurement Positions

According to the KDB941225 D06 Hot Spot SAR v01, the edges with less than 2.5 cm distance to the antennas need to be tested for SAR.

| SAR measurement positions |       |      |           |            |          |             |
|---------------------------|-------|------|-----------|------------|----------|-------------|
| Mode                      | Front | Rear | Left edge | Right edge | Top edge | Bottom edge |
| ANT13                     | Yes   | Yes  | Yes       | No         | Yes      | No          |
| ANT31                     | Yes   | Yes  | No        | Yes        | No       | Yes         |
| ANT41                     | Yes   | Yes  | Yes       | No         | No       | Yes         |
| ANT22                     | Yes   | Yes  | No        | Yes        | Yes      | No          |
| ANT12                     | Yes   | Yes  | Yes       | No         | Yes      | No          |

### 12.3 Standalone SAR Test Exclusion Considerations

Standalone 1-g head or body SAR evaluation by measurement or numerical simulation is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

The 1-g SAR test exclusion threshold 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, where

- $f(\text{GHz})$  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

### Standalone SAR test exclusion considerations

| Band/Mode   | F(GHz) | Position | SAR test exclusion threshold(mW) | RF output power |       | SAR test exclusion |
|-------------|--------|----------|----------------------------------|-----------------|-------|--------------------|
|             |        |          |                                  | dBm             | mW    |                    |
| Bluetooth   | 2.441  | Head     | 9.60                             | 11              | 12.59 | No                 |
|             |        | Body     | 19.20                            | 11              | 12.59 | Yes                |
| 2.4GHz WLAN | 2.45   | Head     | 9.58                             | 13              | 19.95 | No                 |
|             |        | Body     | 19.17                            | 20              | 100   | No                 |
| 5GHz WLAN   | 5.2    | Head     | 6.58                             | 12              | 15.85 | No                 |
|             |        | Body     | 13.16                            | 19              | 79.43 | No                 |
|             | 5.3    | Head     | 6.52                             | 12              | 15.85 | No                 |
|             |        | Body     | 13.03                            | 19              | 79.43 | No                 |
|             | 5.6    | Head     | 6.34                             | 15              | 31.62 | No                 |
|             |        | Body     | 12.68                            | 19              | 79.43 | No                 |
|             | 5.8    | Head     | 6.23                             | 16              | 39.81 | No                 |
|             |        | Body     | 12.46                            | 19.5            | 89.13 | No                 |

## 13 SAR Test Result

### Note:

#### KDB 447498 D01 General RF Exposure Guidance:

For WWAN: Reported SAR(W/kg)= Measured SAR(W/kg)\*Tune-up Scaling Factor

For BT/WLAN: Reported SAR(W/kg)= Measured SAR(W/kg)\* Duty Cycle scaling factor \* Tune-up scaling factor

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:

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

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

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

#### KDB 648474 D04 Handset SAR:

With headset attached, when the reported SAR for body-worn accessory, measured without a headset connected to the handset, is  $> 1.2$  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.

#### KDB 941225 D01 SAR test for 3G devices:

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.

#### KDB 941225 D05 SAR for LTE Devices:

SAR test reduction is applied using the following criteria:

Start with the largest channel bandwidth and measure SAR for QPSK with 1 RB, and 50% RB allocation, using the RB offset and required test channel combination with the highest maximum output power among RB offsets at the upper edge, middle and lower edge of each required test channel.

When the reported SAR is  $> 0.8$  W/kg, testing for other Channels is performed at the highest output power level for 1RB, and 50% RB configuration for that channel.

Testing for 100% RB configuration is performed at the highest output power level for 100% RB configuration across the Low, Mid and High Channel when the highest reported SAR for 1 RB and 50% RB are  $> 0.8$  W/kg. Testing for the remaining required channels is not needed because the reported SAR for 100% RB Allocation  $< 1.45$  W/kg.

Testing for 16-QAM modulation is not required because the reported SAR for QPSK is  $< 1.45$  W/Kg and its output power is not more than  $0.5$  dB higher than that of QPSK.

Testing for the other channel bandwidths is not required because the reported SAR for the highest channel bandwidth is  $< 1.45$  W/Kg and its output power is not more than  $0.5$  dB higher than that of the highest channel bandwidth.

For LTE bands that do not support at least three non-overlapping channels in certain channel bandwidths, test the available non-overlapping channels instead. When a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the

group of overlapping channels should be selected for testing; therefore, the requirement for H, M and L channels may not fully apply.

**KDB 941225 D06 Hot Spot SAR:**

The hotspot mode and body-worn accessory SAR test configurations may overlap for handsets. When the same wireless mode transmission configurations for voice and data are required for SAR measurements, the more conservative configuration with a smaller separation distance should be tested for the overlapping SAR configurations. This typically applies to the back and front surfaces of a handset when SAR is required for both hotspot mode and body-worn accessory exposure conditions.

**KDB 248227 D01 SAR meas for 802.11:**

SAR test reduction for 802.11 Wi-Fi transmission mode configurations are considered separately for DSSS and OFDM. An initial test position is determined to reduce the number of tests required for certain exposure configurations with multiple test positions. An initial test configuration is determined for each frequency band and aggregated band according to maximum output power, channel bandwidth, wireless mode configurations and other operating parameters to streamline the measurement requirements. For 2.4 GHz DSSS, either the initial test position or DSSS procedure is applied to reduce the number of SAR tests; these are mutually exclusive. For OFDM, an initial test position is only applicable to next to the ear, UMPC mini-tablet and hotspot mode configurations, which is tested using the initial test configuration to facilitate test reduction. For other exposure conditions with a fixed test position, SAR test reduction is determined using only the initial test configuration.

To determine the initial test position, Area Scans were performed to determine the position with the Maximum Value of SAR (measured). The position that produced the highest Maximum Value of SAR is considered the worst case position; thus used as the initial test position.

The multiple test positions require SAR measurements in head, hotspot mode or UMPC mini-tablet configurations may be reduced according to the highest reported SAR determined using the initial test position(s) by applying the DSSS or OFDM SAR measurement procedures in the required wireless mode test configuration(s). The initial test position(s) is measured using the highest measured maximum output power channel in the required wireless mode test configuration(s).

When the reported SAR for the initial test position is:

$\leq 0.4$  W/kg, further SAR measurement is not required for the other test positions in that exposure configuration and wireless mode combination within the frequency band or aggregated band. DSSS and OFDM configurations are considered separately according to the required SAR procedures.

$> 0.4$  W/kg, SAR is repeated using the same wireless mode test configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position, on the highest maximum output power channel, until the reported SAR is  $\leq 0.8$  W/kg or all required test positions are tested.

- For subsequent test positions with equivalent test separation distance or when exposure is dominated by coupling conditions, the position for maximum coupling condition should be tested.
- When it is unclear, all equivalent conditions must be tested.

For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is  $> 0.8$  W/kg, measure the SAR for these positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is  $\leq 1.2$  W/kg or all required test channels are considered.

•The additional power measurements required for this step should be limited to those necessary for identifying subsequent highest output power channels to apply the test reduction.

When the specified maximum output power is the same for both UNII 1 and UNII 2A, begin SAR measurements in UNII 2A with the channel with the highest measured output power. If the reported SAR for UNII 2A is  $\leq 1.2$  W/kg, SAR is not required for UNII 1; otherwise treat the remaining bands separately and test them independently for SAR.

When the specified maximum output power is different between UNII 1 and UNII 2A, begin SAR with the band that has the higher specified maximum output. If the highest reported SAR for the band with the highest specified power is  $\leq 1.2$  W/kg, testing for the band with the lower specified output power is not required; otherwise test the remaining bands independently for SAR.

#### Duty Cycle

| Mode              | Duty Cycle |
|-------------------|------------|
| Speech for GSM    | 1:8.3      |
| GPRS&EGPRS 1 Slot | 1:8.3      |
| GPRS&EGPRS 2 Slot | 1:4        |
| GPRS&EGPRS 3 Slot | 1:2.67     |
| GPRS&EGPRS 4 Slot | 1:2        |
| WCDMA&LTE FDD     | 1:1        |
| TDD PC3           | 1:1.58     |

**Ambient Temperature: 21.5-23.5 °C Liquid Temperature: 21.5-23.5 °C**

#### The evaluation of multi-SIM cards:

We'll perform the head measurement in all bands with the primary SIM depending on the evaluation of multi-SIM cards and retest on highest value point with other SIM. Then, repeat the measurement in the Body test.

| Frequency |     | Side | Test Position | SIM cards | SAR(1g) (W/kg) | Power Drift(dB) |
|-----------|-----|------|---------------|-----------|----------------|-----------------|
| MHz       | Ch. |      |               |           |                |                 |
| 836.6     | 190 | Left | Cheek         | S1        | 0.069          | 0.11            |
| 836.6     | 190 | Left | Cheek         | S2        | 0.064          | 0.05            |

Note: According to the values in the above table, the **S1** is the primary SIM card.

We'll perform the head measurement with the **S1** and retest on highest value point with others.

| Frequency |     | Test Position | Spacing (mm) | SIM cards | SAR(1g) (W/kg) | Power Drift(dB) |
|-----------|-----|---------------|--------------|-----------|----------------|-----------------|
| MHz       | Ch. |               |              |           |                |                 |
| 836.6     | 190 | Front         | 10           | S1        | 0.211          | -0.03           |
| 836.6     | 190 | Front         | 10           | S2        | 0.206          | 0.13            |

Note: According to the values in the above table, the **S1** is the primary SIM card.

We'll perform the body measurement with the **S1** and retest on highest value point with others.

#### Note

**S2: SIM2**

## 13.1 SAR results for 2/3/4G

### ANT13 Head

| ANT | RF Exposure Conditions | Frequency Band | Channel Number | Frequency (MHz) | Mode/RB    | Test Position | Distance | Figure No./Note | EUT Measured Power (dBm) | Tune up (dBm) | Measured SAR 1g (W/kg) | Reported SAR 1g (W/kg) | Measured SAR 10g (W/kg) | Reported SAR 10g (W/kg) | Power Drift |
|-----|------------------------|----------------|----------------|-----------------|------------|---------------|----------|-----------------|--------------------------|---------------|------------------------|------------------------|-------------------------|-------------------------|-------------|
| 13  | Head                   | GSM850         | 190            | 836.6           | GSM        | Cheek Left    | 0mm      | \               | 25.12                    | 26.2          | 0.069                  | 0.09                   | 0.056                   | 0.07                    | 0.11        |
| 13  | Head                   | GSM850         | 190            | 836.6           | GSM        | Tilt Left     | 0mm      | \               | 25.12                    | 26.2          | 0.055                  | 0.07                   | 0.038                   | 0.05                    | 0.03        |
| 13  | Head                   | GSM850         | 251            | 848.8           | GSM        | Cheek Right   | 0mm      | \               | 25.05                    | 26.2          | 0.128                  | 0.17                   | 0.076                   | 0.10                    | 0.04        |
| 13  | Head                   | GSM850         | 190            | 836.6           | GSM        | Cheek Right   | 0mm      | \               | 25.12                    | 26.2          | 0.16                   | 0.21                   | 0.101                   | 0.13                    | 0.02        |
| 13  | Head                   | GSM850         | 128            | 824.2           | GSM        | Cheek Right   | 0mm      | FIG A.1         | 24.93                    | 26.2          | 0.171                  | 0.23                   | 0.103                   | 0.14                    | 0.04        |
| 13  | Head                   | GSM850         | 190            | 836.6           | GSM        | Tilt Right    | 0mm      | \               | 25.12                    | 26.2          | 0.114                  | 0.15                   | 0.067                   | 0.09                    | -0.09       |
| 13  | Head                   | GSM1900        | 661            | 1880            | GSM        | Cheek Left    | 0mm      | \               | 22.91                    | 24            | 0.201                  | 0.26                   | 0.091                   | 0.12                    | 0.04        |
| 13  | Head                   | GSM1900        | 661            | 1880            | GSM        | Tilt Left     | 0mm      | \               | 22.91                    | 24            | 0.281                  | 0.36                   | 0.125                   | 0.16                    | 0.06        |
| 13  | Head                   | GSM1900        | 661            | 1880            | GSM        | Cheek Right   | 0mm      | \               | 22.91                    | 24            | 0.357                  | 0.46                   | 0.165                   | 0.21                    | 0.01        |
| 13  | Head                   | GSM1900        | 810            | 1909.8          | GSM        | Tilt Right    | 0mm      | \               | 22.86                    | 24            | 0.421                  | 0.55                   | 0.175                   | 0.23                    | 0.05        |
| 13  | Head                   | GSM1900        | 661            | 1880            | GSM        | Tilt Right    | 0mm      | FIG A.2         | 22.91                    | 24            | 0.427                  | 0.55                   | 0.192                   | 0.25                    | -0.05       |
| 13  | Head                   | GSM1900        | 512            | 1850.2          | GSM        | Tilt Right    | 0mm      | \               | 22.97                    | 24            | 0.377                  | 0.48                   | 0.162                   | 0.21                    | -0.04       |
| 13  | Head                   | WCDMA1900      | 9400           | 1880            | RMC        | Cheek Left    | 0mm      | \               | 14.26                    | 15.5          | 0.337                  | 0.45                   | 0.17                    | 0.23                    | 0.12        |
| 13  | Head                   | WCDMA1900      | 9400           | 1880            | RMC        | Tilt Left     | 0mm      | \               | 14.26                    | 15.5          | 0.43                   | 0.57                   | 0.211                   | 0.28                    | -0.08       |
| 13  | Head                   | WCDMA1900      | 9400           | 1880            | RMC        | Cheek Right   | 0mm      | \               | 14.26                    | 15.5          | 0.467                  | 0.62                   | 0.221                   | 0.29                    | 0.00        |
| 13  | Head                   | WCDMA1900      | 9538           | 1907.6          | RMC        | Tilt Right    | 0mm      | \               | 14.08                    | 15.5          | 0.601                  | 0.83                   | 0.271                   | 0.38                    | -0.03       |
| 13  | Head                   | WCDMA1900      | 9400           | 1880            | RMC        | Tilt Right    | 0mm      | FIG A.3         | 14.26                    | 15.5          | 0.632                  | 0.84                   | 0.285                   | 0.38                    | -0.01       |
| 13  | Head                   | WCDMA1900      | 9262           | 1852.4          | RMC        | Tilt Right    | 0mm      | \               | 13.93                    | 15.5          | 0.581                  | 0.83                   | 0.266                   | 0.38                    | 0.06        |
| 13  | Head                   | WCDMA1900      | 9400           | 1880            | RMC        | Tilt Right    | 0mm      | S2              | 14.26                    | 15.5          | 0.616                  | 0.82                   | 0.273                   | 0.36                    | 0.13        |
| 13  | Head                   | WCDMA1700      | 1413           | 1732.6          | RMC        | Cheek Left    | 0mm      | \               | 14.79                    | 16            | 0.408                  | 0.54                   | 0.23                    | 0.30                    | 0.00        |
| 13  | Head                   | WCDMA1700      | 1413           | 1732.6          | RMC        | Tilt Left     | 0mm      | \               | 14.79                    | 16            | 0.374                  | 0.49                   | 0.219                   | 0.29                    | 0.07        |
| 13  | Head                   | WCDMA1700      | 1413           | 1732.6          | RMC        | Cheek Right   | 0mm      | \               | 14.79                    | 16            | 0.437                  | 0.58                   | 0.21                    | 0.28                    | 0.12        |
| 13  | Head                   | WCDMA1700      | 1513           | 1752.6          | RMC        | Tilt Right    | 0mm      | FIG A.4         | 14.83                    | 16            | 0.58                   | 0.76                   | 0.262                   | 0.34                    | -0.05       |
| 13  | Head                   | WCDMA1700      | 1413           | 1732.6          | RMC        | Tilt Right    | 0mm      | \               | 14.79                    | 16            | 0.527                  | 0.70                   | 0.238                   | 0.31                    | -0.03       |
| 13  | Head                   | WCDMA1700      | 1312           | 1712.4          | RMC        | Tilt Right    | 0mm      | \               | 14.94                    | 16            | 0.458                  | 0.58                   | 0.209                   | 0.27                    | -0.05       |
| 13  | Head                   | WCDMA 850      | 4183           | 836.6           | RMC        | Cheek Left    | 0mm      | \               | 18.50                    | 19.5          | 0.065                  | 0.08                   | 0.057                   | 0.07                    | -0.02       |
| 13  | Head                   | WCDMA 850      | 4183           | 836.6           | RMC        | Tilt Left     | 0mm      | \               | 18.50                    | 19.5          | 0.054                  | 0.07                   | 0.042                   | 0.05                    | -0.02       |
| 13  | Head                   | WCDMA 850      | 4233           | 846.6           | RMC        | Cheek Right   | 0mm      | \               | 18.36                    | 19.5          | 0.09                   | 0.12                   | 0.065                   | 0.08                    | -0.04       |
| 13  | Head                   | WCDMA 850      | 4183           | 836.6           | RMC        | Cheek Right   | 0mm      | FIG A.5         | 18.50                    | 19.5          | 0.176                  | 0.22                   | 0.11                    | 0.14                    | -0.02       |
| 13  | Head                   | WCDMA 850      | 4132           | 826.4           | RMC        | Cheek Right   | 0mm      | \               | 18.61                    | 19.5          | 0.142                  | 0.17                   | 0.095                   | 0.12                    | -0.02       |
| 13  | Head                   | WCDMA 850      | 4183           | 836.6           | RMC        | Tilt Right    | 0mm      | \               | 18.50                    | 19.5          | 0.09                   | 0.11                   | 0.065                   | 0.08                    | 0.07        |
| 13  | Head                   | LTE Band2      | 18700          | 1860            | 1RB-Middle | Cheek Left    | 0mm      | \               | 14.46                    | 15.5          | 0.308                  | 0.39                   | 0.143                   | 0.18                    | 0.09        |
| 13  | Head                   | LTE Band2      | 18700          | 1860            | 1RB-Middle | Tilt Left     | 0mm      | \               | 14.46                    | 15.5          | 0.426                  | 0.54                   | 0.192                   | 0.24                    | 0.01        |
| 13  | Head                   | LTE Band2      | 18700          | 1860            | 1RB-Middle | Cheek Right   | 0mm      | \               | 14.46                    | 15.5          | 0.476                  | 0.60                   | 0.212                   | 0.27                    | -0.06       |
| 13  | Head                   | LTE Band2      | 18700          | 1860            | 1RB-Middle | Tilt Right    | 0mm      | FIG A.6         | 14.46                    | 15.5          | 0.564                  | 0.72                   | 0.255                   | 0.32                    | -0.05       |
| 13  | Head                   | LTE Band2      | 18700          | 1860            | 50RB-High  | Cheek Left    | 0mm      | \               | 14.52                    | 15.5          | 0.349                  | 0.44                   | 0.164                   | 0.21                    | -0.09       |
| 13  | Head                   | LTE Band2      | 18700          | 1860            | 50RB-High  | Tilt Left     | 0mm      | \               | 14.52                    | 15.5          | 0.463                  | 0.58                   | 0.211                   | 0.26                    | 0.05        |
| 13  | Head                   | LTE Band2      | 18700          | 1860            | 50RB-High  | Cheek Right   | 0mm      | \               | 14.52                    | 15.5          | 0.446                  | 0.56                   | 0.206                   | 0.26                    | 0.08        |
| 13  | Head                   | LTE Band2      | 18700          | 1860            | 50RB-High  | Tilt Right    | 0mm      | \               | 14.52                    | 15.5          | 0.559                  | 0.70                   | 0.253                   | 0.32                    | 0.06        |