



## **SAR EVALUATION REPORT**

**IEEE Std 1528-2013**

*For*  
**SMARTPHONE**

**FCC ID: BCG-E3305A**  
**Model Name: A2160, A2216, and A2217**

**Report Number: 12607346-S1V2**  
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**Revision History**

| Rev. | Date      | Revisions                                                                                                                               | Revised By  |
|------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------|-------------|
| V1   | 8/15/2019 | Initial Issue                                                                                                                           | --          |
| V2   | 8/20/2019 | Updated Report in accordance with TCB feedback:<br>Section 1, 8, 9.2, 9.4, 10.4, 10.16, 10.18, 10.20 , and 12.5<br>Appendix B, C, and H | Devin Chang |
|      |           |                                                                                                                                         |             |
|      |           |                                                                                                                                         |             |
|      |           |                                                                                                                                         |             |

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## 1. Attestation of Test Results

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                         |       |                                                                                      |       |       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-------|--------------------------------------------------------------------------------------|-------|-------|
| Applicant Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | APPLE, INC.                                                                                                                             |       |                                                                                      |       |       |
| FCC ID                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | BCG-E3305A                                                                                                                              |       |                                                                                      |       |       |
| Model Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | A2160, A2216, and A2217                                                                                                                 |       |                                                                                      |       |       |
| Difference in Model Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Model A2216, A2217 is electrically identical to Model A2160. Three model numbers are allocated for marketing and logistic purposes only |       |                                                                                      |       |       |
| Applicable Standards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Published RF exposure KDB procedures<br>IEEE Std 1528-2013                                                                              |       |                                                                                      |       |       |
| Exposure Category                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | SAR Limits (W/Kg)                                                                                                                       |       |                                                                                      |       |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Peak spatial-average<br>(1g of tissue)                                                                                                  |       | Extremities (hands, wrists, ankles, etc.)<br>(10g of tissue)                         |       |       |
| General population /<br>Uncontrolled exposure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1.6                                                                                                                                     |       | 4                                                                                    |       |       |
| RF Exposure Conditions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Equipment Class - Highest Reported SAR (W/kg)                                                                                           |       |                                                                                      |       |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | PCE                                                                                                                                     | CBE   | DTS                                                                                  | NII   | DSS   |
| Head                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.899                                                                                                                                   | 0.608 | 1.150                                                                                | 1.158 | 0.544 |
| Body-worn (Dist.= 5 mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0.998                                                                                                                                   | 0.970 | 1.100                                                                                | 1.158 | 0.586 |
| Hotspot (Dist.= 5 mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0.998                                                                                                                                   | 0.970 | 1.100                                                                                | 1.179 | 0.586 |
| Simultaneous TX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Head                                                                                                                                    | 1.424 | 1.424                                                                                | 1.377 | 1.424 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Body-worn                                                                                                                               | 1.480 | 1.480                                                                                | 1.480 | 1.458 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Hotspot                                                                                                                                 | 1.480 | 1.480                                                                                | 1.480 | 1.458 |
| Date Tested                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 6/13/2019 to 7/31/2019                                                                                                                  |       |                                                                                      |       |       |
| Test Results                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Pass                                                                                                                                    |       |                                                                                      |       |       |
| <p>UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.</p> <p>The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. All samples tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise.</p> <p>This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of the U.S. government.</p> |                                                                                                                                         |       |                                                                                      |       |       |
| Approved & Released By:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                         |       | Prepared By:                                                                         |       |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                         |       |  |       |       |
| Devin Chang<br>Senior Test Engineer<br>UL Verification Services Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                         |       | Chakrit Thammanavarat<br>Senior Test Engineer<br>UL Verification Services Inc.       |       |       |

## 2. Test Specification, Methods and Procedures

The tests documented in this report were performed in accordance with FCC 47 CFR § 2.1093, IEEE STD 1528-2013, the following FCC Published RF exposure [KDB](#) procedures:

- 248227 D01 802.11 Wi-Fi SAR v02r02
- 447498 D01 General RF Exposure Guidance v06
- 447498 D03 Supplement C Cross-Reference v01
- 648474 D04 Handset SAR v01r03
- 865664 D01 SAR measurement 100 MHz to 6 GHz v01r04
- 865664 D02 RF Exposure Reporting v01r02
- 941225 D01 3G SAR Procedures v03r01
- 941225 D05 SAR for LTE Devices v02r05
- 941225 D05A LTE Rel.10 KDB Inquiry Sheet v01r02
- 941225 D06 Hotspot Mode v02r01

In addition to the above, the following information was used:

- [TCB workshop](#) October 2014; RF Exposure Procedures (Other LTE Considerations)
- [TCB workshop](#) April 2015; RF Exposure Procedures (Overlapping LTE Bands)
- [TCB workshop](#) October 2015; RF Exposure Procedures (KDB 941225 D05A)
- [TCB workshop](#) April 2016; RF Exposure Procedures (LTE Carrier Aggregation for DL)
- [TCB workshop](#) October 2016; RF Exposure Procedures (LTE Carrier Aggregation for UL)
- [TCB workshop](#) October 2016; RF Exposure Procedures (Bluetooth Duty Factor)
- [TCB workshop](#) October 2016; RF Exposure Procedures (DUT Holder Perturbations)
- [TCB workshop](#) May 2017; RF Exposure Procedures (Broadband Liquid Above 3 GHz)
- [TCB workshop](#) May 2017; RF Exposure Procedures (LTE Band 41 Power Class 2)
- [TCB workshop](#) November 2017; RF Exposure Procedures (LTE UL/DL Carrier Aggregation SAR)
- [TCB workshop](#) April 2018; RF Exposure Procedures (LTE DL CA SAR Test Exclusion)
- [TCB workshop](#) October 2018; RF Exposure Procedures (LTE Inter-Band Uplink Carrier Aggregation – Interim Procedures)
- [TCB workshop](#) April 2019; RF Exposure Procedures (802.11ax SAR Testing)

## 3. Facilities and Accreditation

The test sites and measurement facilities used to collect data are located at

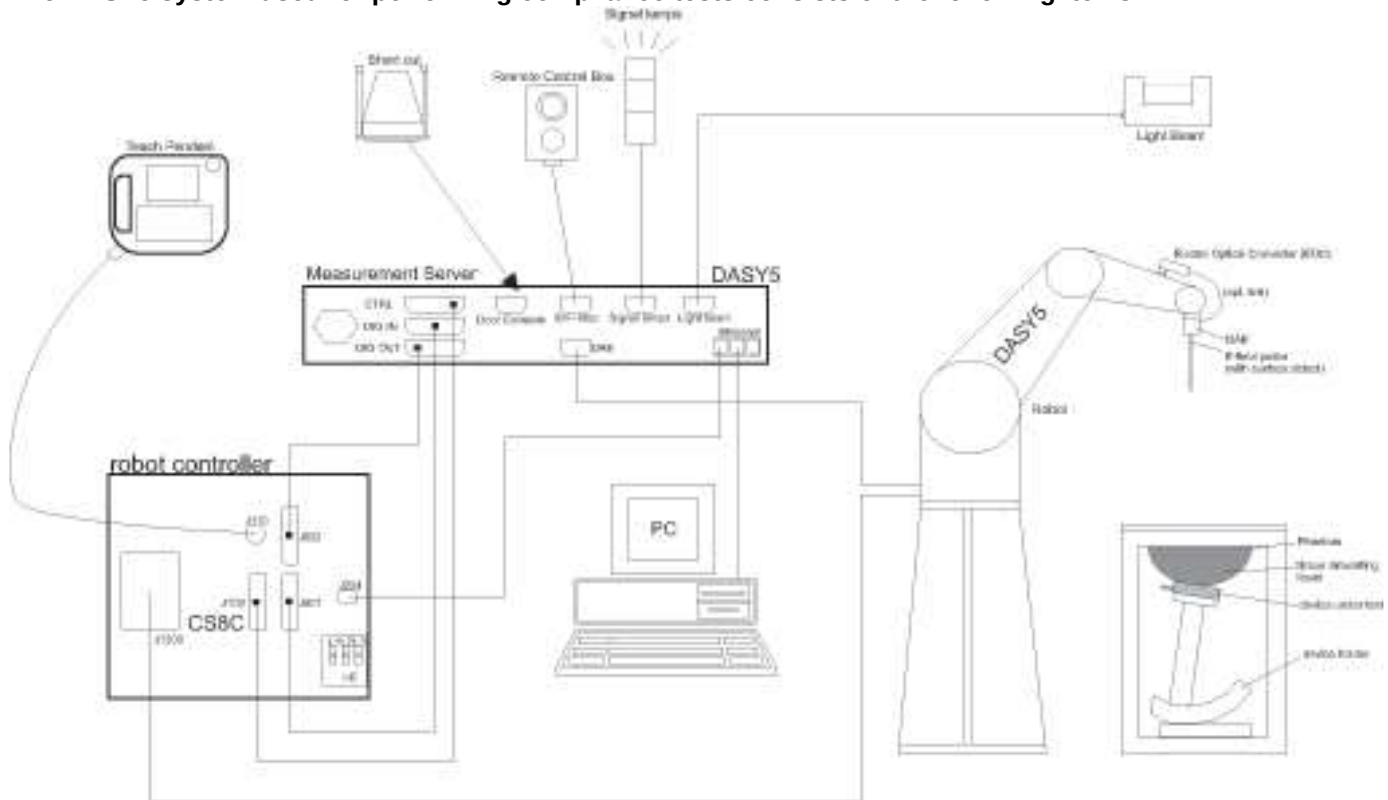
| 47173 Benicia Street | 47266 Benicia Street |
|----------------------|----------------------|
| SAR Lab A            | SAR Lab 1            |
| SAR Lab B            | SAR Lab 2            |
| SAR Lab C            | SAR Lab 3            |
| SAR Lab D            | SAR Lab 4            |
| SAR Lab E            | SAR Lab 5            |
| SAR Lab F            | SAR Lab 6            |
| SAR Lab G            | SAR Lab 7            |
| SAR Lab H            | SAR Lab 8            |
|                      | SAR Lab 9            |

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0.

## 4. SAR Measurement System & Test Equipment

### 4.1. SAR Measurement System

The DASY5 system used for performing compliance tests consists of the following items:



- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic Field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running WinXP or Win7 and the DASY5 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

## 4.2. SAR Scan Procedures

### Step 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. The minimum distance of probe sensors to surface is 2.1 mm. This distance cannot be smaller than the distance of sensor calibration points to probe tip as defined in the probe properties.

### Step 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 locations even in relatively coarse grids. When an Area Scan has measured all reachable points, it computes the field maximal 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 KDB 865664 D01 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. |                                                        |

**Step 3: Zoom Scan**

Zoom Scans are used to assess the peak spatial SAR values within a cubic averaging volume containing 1 g and 10 g 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

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

**Step 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 Step 1.

### 4.3. Test Equipment

The measuring equipment used to perform the tests documented in this report has been calibrated in accordance with the manufacturers' recommendations, and is traceable to recognized national standards.

#### Dielectric Property Measurements

| Name of Equipment    | Manufacturer      | Type/Model    | Serial No.    | Cal. Due Date |
|----------------------|-------------------|---------------|---------------|---------------|
| Network Analyzer     | R&S               | ZNLE6         | 101274-mn     | 3/7/2020      |
| Dielectric Probe kit | SPEAG             | DAK-3.5       | 1082          | 9/11/2019     |
| Shorting block       | SPEAG             | DAK-3.5 Short | SM DAK 200 BA | 9/11/2019     |
| Thermometer          | Fisher Scientific | Traceable     | 140562250     | 3/5/2020      |
| Network Analyzer     | R&S               | ZNLE6         | 181650        | 4/24/2020     |
| Dielectric Probe kit | SPEAG             | DAK-3.5       | SM DAK 040 CA | 2/12/2020     |
| Shorting block       | SPEAG             | DAK-3.5 Short | 1059          | 9/11/2019     |
| Thermometer          | Fisher Scientific | Traceable     | 170064398     | 5/21/2020     |

#### System Check

| Name of Equipment            | Manufacturer    | Type/Model             | Serial No.  | Cal. Due Date |
|------------------------------|-----------------|------------------------|-------------|---------------|
| Signal Generator             | Rhode & Schwarz | SMB100A                | 180970      | 2/13/2020     |
| Signal Generator             | Rhode & Schwarz | SMB100A                | 181390      | 2/13/2020     |
| Signal Generator             | Rhode & Schwarz | SMB100A                | 181389      | 2/14/2020     |
| Power Sensor                 | Rhode & Schwarz | NRP18A                 | 100994      | 2/15/2020     |
| Power Sensor                 | Rhode & Schwarz | NRP18A                 | 181144      | 2/15/2020     |
| Power Sensor                 | Rhode & Schwarz | NRP18A                 | 181143      | 2/15/2020     |
| Synthesized Signal Generator | Agilent         | N5181A                 | MY50140610  | 1/31/2020     |
| Power Meter                  | Keysight        | N1912A                 | MY55196007  | 1/30/2020     |
| Power Sensor                 | Agilent         | N1921A                 | MY53260001  | 2/5/2020      |
| Power Sensor                 | Agilent         | N1921A                 | MY52200012  | 2/6/2020      |
| Amplifier                    | MITEQ           | AMF-4D-00400600-50-30P | 1795092     | N/A           |
| Directional coupler          | Werlatone       | C8060-102              | 2149        | N/A           |
| DC Power Supply              | Sorensen        | XT 15-4                | 1817A02680  | N/A           |
| Synthesized Signal Generator | Agilent         | N5181A                 | MY50140630  | 1/31/2020     |
| Power Sensor                 | HP              | 437B                   | 3125U11364  | 1/29/2020     |
| Power Sensor                 | HP              | 437B                   | 3125U16345  | 1/30/2020     |
| Power Sensor                 | Keysight        | 8481A                  | 1926AZ7048  | 2/7/2020      |
| Power Sensor                 | Keysight        | 8481A                  | 3318A92374  | 9/11/2019     |
| Amplifier                    | MITEQ           | AMF-4D-00400600-50-30P | 1795093     | N/A           |
| Directional coupler          | Werlatone       | C8060-102              | 2149        | N/A           |
| DC Power Supply              | HP              | 6296A                  | 2841A-05955 | N/A           |

**Lab Equipment**

| Name of Equipment                        | Manufacturer | Type/Model | Serial No. | Cal. Due Date |
|------------------------------------------|--------------|------------|------------|---------------|
| E-Field Probe (SAR Lab A)                | SPEAG        | EX3DV4     | 3686       | 8/28/2019     |
| E-Field Probe (SAR Lab B)                | SPEAG        | EX3DV4     | 3989       | 1/25/2020     |
| E-Field Probe (SAR Lab C)                | SPEAG        | EX3DV4     | 3990       | 8/17/2019     |
| E-Field Probe (SAR Lab C)                | SPEAG        | EX3DV4     | 7501       | 5/21/2020     |
| E-Field Probe (SAR Lab D)                | SPEAG        | EX3DV4     | 7335       | 2/28/2020     |
| E-Field Probe (SAR Lab E)                | SPEAG        | EX3DV4     | 3749       | 1/25/2020     |
| E-Field Probe (SAR Lab F)                | SPEAG        | EX3DV4     | 7356       | 4/17/2020     |
| E-Field Probe (SAR Lab G)                | SPEAG        | EX3DV4     | 7448       | 3/27/2020     |
| E-Field Probe (SAR Lab H)                | SPEAG        | EX3DV4     | 7498       | 4/18/2020     |
| E-Field Probe (SAR Lab 6)                | SPEAG        | EX3DV4     | 3990       | 8/17/2019     |
| E-Field Probe (SAR Lab 6)                | SPEAG        | EX3DV4     | 3773       | 3/27/2020     |
| E-Field Probe (SAR Lab 7)                | SPEAG        | EX3DV4     | 3772       | 2/20/2020     |
| E-Field Probe (SAR Lab 9)                | SPEAG        | EX3DV4     | 3773       | 3/27/2020     |
| E-Field Probe (SAR Lab 9)*               | SPEAG        | EX3DV4     | 7463       | 7/20/2019     |
| Data Acquisition Electronics (SAR Lab A) | SPEAG        | DAE4       | 1380       | 8/21/2019     |
| Data Acquisition Electronics (SAR Lab B) | SPEAG        | DAE4       | 1377       | 9/14/2019     |
| Data Acquisition Electronics (SAR Lab C) | SPEAG        | DAE4       | 1547       | 5/14/2020     |
| Data Acquisition Electronics (SAR Lab D) | SPEAG        | DAE4       | 1434       | 4/16/2020     |
| Data Acquisition Electronics (SAR Lab D) | SPEAG        | DAE4       | 1258       | 5/14/2020     |
| Data Acquisition Electronics (SAR Lab E) | SPEAG        | DAE4       | 1357       | 2/13/2020     |
| Data Acquisition Electronics (SAR Lab F) | SPEAG        | DAE4       | 1548       | 4/16/2020     |
| Data Acquisition Electronics (SAR Lab G) | SPEAG        | DAE4       | 1257       | 9/14/2019     |
| Data Acquisition Electronics (SAR Lab H) | SPEAG        | DAE4       | 1545       | 4/12/2020     |
| Data Acquisition Electronics (SAR Lab 6) | SPEAG        | DAE4       | 1433       | 3/20/2020     |
| Data Acquisition Electronics (SAR Lab 7) | SPEAG        | DAE4       | 1352       | 8/12/2019     |
| Data Acquisition Electronics (SAR Lab 9) | SPEAG        | DAE4       | 1546       | 5/14/2020     |
| Data Acquisition Electronics (SAR Lab 9) | SPEAG        | DAE4       | 1259       | 10/10/2019    |
| System Validation Dipole                 | SPEAG        | D750V3     | 1019       | 3/21/2020     |
| System Validation Dipole                 | SPEAG        | D750V3     | 1071       | 11/28/2019    |
| System Validation Dipole                 | SPEAG        | D835V2     | 4d002      | 11/28/2019    |
| System Validation Dipole                 | SPEAG        | D835V2     | 4d117      | 5/15/2020     |
| System Validation Dipole                 | SPEAG        | D1750V2    | 1050       | 4/17/2020     |
| System Validation Dipole                 | SPEAG        | D1750V2    | 1077       | 10/16/2019    |
| System Validation Dipole                 | SPEAG        | D1900V2    | 5d163      | 10/16/2019    |
| System Validation Dipole                 | SPEAG        | D1900V2    | 5d140      | 4/17/2020     |
| System Validation Dipole                 | SPEAG        | D2300V2    | 1002       | 3/22/2020     |
| System Validation Dipole                 | SPEAG        | D2450V2    | 899        | 3/22/2020     |
| System Validation Dipole                 | SPEAG        | D2600V2    | 1006       | 10/16/2019    |
| System Validation Dipole                 | SPEAG        | D2600V2    | 1036       | 3/22/2020     |
| System Validation Dipole                 | SPEAG        | D3500V2    | 1011       | 5/13/2020     |
| System Validation Dipole                 | SPEAG        | D3700V2    | 1039       | 6/12/2020     |
| System Validation Dipole                 | SPEAG        | D5GHzV2    | 1168       | 11/30/2019    |
| System Validation Dipole                 | SPEAG        | D5GHzV2    | 1003       | 2/19/2020     |

**Note(s):**

\*Equipment not used past calibration due date.

**Other**

| Name of Equipment      | Manufacturer | Type/Model | Tnumber | Serial No. | Cal. Due Date |
|------------------------|--------------|------------|---------|------------|---------------|
| Base Station Simulator | R & S        | CMW500     | T375    | 132910-cp  | 2/18/2020     |
| Base Station Simulator | R & S        | CMW500     | T970    | 137875-dz  | 2/21/2020     |
| Base Station Simulator | R & S        | CMW500     | T979    | 135394-mC  | 2/20/2020     |
| Base Station Simulator | R & S        | CMW500     | T964    | 134853-ud  | 2/21/2020     |
| Base Station Simulator | R & S        | CMW500     | T959    | 137873-WG  | 2/16/2020     |
| Base Station Simulator | R & S        | CMW500     | T259    | 124594-HX  | 2/17/2020     |
| Base Station Simulator | R & S        | CMW500     | T919    | 125236-eS  | 4/10/2020     |

## 5. Measurement Uncertainty

Per KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg and the measured 10-g SAR within a frequency band is < 3.75 W/kg. The expanded SAR measurement uncertainty must be  $\leq 30\%$ , for a confidence interval of  $k = 2$ . If these conditions are met, extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2013 is not required in SAR reports submitted for equipment approval.

Therefore, the measurement uncertainty is not required.

## 6. Device Under Test (DUT) Information

### 6.1. DUT Description

The Apple iPhone is a smartphone with multimedia functions (music, application support, and video), cellular GSM, GPRS, EGPRS, UMTS, LTE, TD-SCDMA, CDMA, IEEE 802.11a/b/g/n/ac/ax, Bluetooth, Ultra-Wide band, GPS and NFC. All models support at least one UICC based SIM. The second SIM, if present, is either UICC based pSIM (physical SIM) or e-SIM (electronic SIM). The device has a built-in inductive charging receiver. The rechargeable battery is also not user accessible.

This device has five WWAN antennas (ANT1, ANT2, ANT3, ANT4, and ANT6) as well as multiple Wi-Fi/BT antennas (ANT3 and ANT4 for Wi-Fi/BT 2.4GHz, ANT5 and ANT6 for Wi-Fi 5GHz).

The device utilizes two power modes: Mode A and Mode B. Power selection is determined by the device's positioning and use case as described in Sec. 10. Mode A power is used when the device is used against the user's head, or away from the body. Mode B is used when the device is used in a body-worn configuration by the user.

The WWAN transmit antenna switching mechanism between WWAN antennas is implemented with a physical "break-before-make" switch so that only one antenna can be used for WWAN transmission at one time.

In Airplay mode, the device uses same power and power control mechanism as Wi-Fi. Airplay is not supported in hotspot mode. Airplay utilize the same 802.11 modes, modulation, MIMO, Channel Bandwidth, etc. as Wi-Fi does. Therefore Airplay usage is categorized by the Wi-Fi SAR testing contained in Section 10.

There are two vendors of the Wi-Fi/Bluetooth radio modules: variant 1 and variant 2. The Wi-Fi/BT radio modules have the same mechanical outline (e.g., the same package dimension and pin-out layout), use the same on-board antenna matching circuit, have an identical antenna structure, and are built and tested to conform to the same specifications and to operate within the same tolerances. It is confirmed that Variant 1 represents the worst case.

|                               |                                                                                                                                                                                                                                              |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Device Dimension              | Overall (Length x Width): 143.4 mm x 70.8 mm<br>Overall Diagonal: 159.9 mm<br>Display Diagonal: 148.6 mm                                                                                                                                     |
| Back Cover                    | The Back Cover is not removable                                                                                                                                                                                                              |
| Battery Options               | The rechargeable battery is not user accessible.                                                                                                                                                                                             |
| Accessory                     | Headset                                                                                                                                                                                                                                      |
| Wireless Router (Hotspot)     | Wi-Fi Hotspot mode permits the device to share its cellular data connection with other Wi-Fi-enabled devices.<br><input checked="" type="checkbox"/> Mobile Hotspot (Wi-Fi 2.4 GHz)<br><input type="checkbox"/> Mobile Hotspot (Wi-Fi 5 GHz) |
| AirPlay                       | AirPlay mode enabled devices transfer data directly between each other<br><input checked="" type="checkbox"/> AirPlay (Wi-Fi 2.4 GHz)<br><input checked="" type="checkbox"/> AirPlay (Wi-Fi 5 GHz)                                           |
| Bluetooth Tethering (Hotspot) | BT Tethering mode permits the device to share its cellular data connection with other devices.<br><input checked="" type="checkbox"/> BT Tethering (Bluetooth 2.4 GHz)                                                                       |

## 6.2. Wireless Technologies

| Wireless technologies   | Frequency bands                                                                                                                                                                                                                                                                                                                                                                   | Operating mode                                                                                                                                                   |                                                               | Duty Cycle used for SAR testing                                                                                     |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| GSM                     | 850<br>1900                                                                                                                                                                                                                                                                                                                                                                       | Voice (GMSK)<br>GPRS (GMSK)<br>EDGE (8PSK)                                                                                                                       | GSM Class : B<br>Multi-Slot Class:<br>Class 10 - 2 Up, 4 Down | GSM Voice: 12.5%<br>(E)GPRS: 1 Slot: 12.5%<br>2 Slots: 25%                                                          |
|                         | Does this device support DTM (Dual Transfer Mode)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                                                                                                                                                                                                                                                            |                                                                                                                                                                  |                                                               |                                                                                                                     |
| CDMA<br>(CDMA2000)      | BC0<br>BC1<br>BC10                                                                                                                                                                                                                                                                                                                                                                | 1xRTT (Voice & Data)<br>1xEV-DO Rel. 0<br>1xEV-DO Rev. A<br>1xAdvanced                                                                                           |                                                               | 100%                                                                                                                |
|                         | Does this device support SV-DO (1xRTT-1xEVDO)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                                                                                                                                                                                                                                                                |                                                                                                                                                                  |                                                               |                                                                                                                     |
| W-CDMA<br>(UMTS)        | Band II<br>Band IV<br>Band V                                                                                                                                                                                                                                                                                                                                                      | UMTS Rel. 99 (Voice & Data)<br>HSDPA (Rel. 5)<br>HSUPA (Rel. 6)<br>HSPA+ (Rel. 7)<br>DC-HSDPA (Rel. 8)                                                           |                                                               | 100%                                                                                                                |
| LTE                     | FDD Band 2<br>FDD Band 4<br>FDD Band 5<br>FDD Band 7<br>FDD Band 12<br>FDD Band 13<br>FDD Band 14<br>FDD Band 17<br>FDD Band 25<br>FDD Band 26<br>FDD Band 29 (DL Only)<br>FDD Band 30<br>TDD Band 41 <sup>2</sup><br>TDD Band 46 (DL Only)<br>TDD Band 48<br>FDD Band 66<br>FDD Band 71<br><b>Carrier Aggregation</b> <sup>3</sup><br>FDD Band 5B<br>FDD Band 7C<br>TDD Band 41C | QPSK<br>16QAM<br>64QAM<br>Carrier Aggregation (2 Uplinks and 5 Downlinks)                                                                                        |                                                               | 100% (FDD)<br>63.3% (TDD) <small>Power Class 3</small><br>43.3% (TDD) <small>Power Class 2</small><br>Refer to §6.4 |
|                         | Does this device support SV-LTE (1xRTT-LTE)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                                                                                                                                                                                                                                                                  |                                                                                                                                                                  |                                                               |                                                                                                                     |
| Wi-Fi                   | 2.4 GHz <sup>1</sup>                                                                                                                                                                                                                                                                                                                                                              | 802.11b<br>802.11g<br>802.11n (HT20)<br>802.11ac (HT20)<br>802.11ax (HE20)                                                                                       |                                                               | 100% (802.11b)                                                                                                      |
|                         | 5 GHz <sup>1</sup>                                                                                                                                                                                                                                                                                                                                                                | 802.11a<br>802.11n (HT20)<br>802.11n (HT40)<br>802.11ac (VHT20)<br>802.11ac (VHT40)<br>802.11ac (VHT80)<br>802.11ax (HE20)<br>802.11ax (HE40)<br>802.11ax (HE80) |                                                               | 98.92% (802.11a/n/ac 20MHz BW)<br>97.93% (802.11n/ac 40MHz BW)<br>95.82% (802.11ac 80MHz BW)                        |
|                         | Does this device support bands 5.60 ~ 5.65 GHz? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                                                                                                                                                               |                                                                                                                                                                  |                                                               |                                                                                                                     |
|                         | Does this device support Band gap channel(s)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                                                                                                                                                                 |                                                                                                                                                                  |                                                               |                                                                                                                     |
| Bluetooth               | 2.4 GHz <sup>1</sup>                                                                                                                                                                                                                                                                                                                                                              | BR, EDR, LE, and HDR                                                                                                                                             |                                                               | 100%                                                                                                                |
| NFC                     | 13.56 MHz                                                                                                                                                                                                                                                                                                                                                                         | Type A/B/F and ISO15693                                                                                                                                          |                                                               | N/A <sup>4</sup>                                                                                                    |
| UWB<br>(Ultra-Wideband) | 6.24 GHz and 8.2368 GHz                                                                                                                                                                                                                                                                                                                                                           | BPSK, 4BOK                                                                                                                                                       |                                                               | N/A <sup>4</sup>                                                                                                    |

**Notes:**

1. Duty cycle for Wi-Fi and BT is referenced from the DTS and U-NII and BT reports.
2. This device supports Power Class 2 and Power Class 3 for LTE Band 41.
3. LTE Uplink 2CA is the total combined power of the UL CA.  
LTE Uplink Cat 13, LTE 3GPP Rel-13 (LTE 3GPP Rel-14 for B41 PC2)
4. Measured Duty Cycle is not required due to SAR test exemption.

### 6.3. General LTE SAR Test and Reporting Considerations

| Item                                                        | Description |                                                |                  |                               |                    |                  |                  |
|-------------------------------------------------------------|-------------|------------------------------------------------|------------------|-------------------------------|--------------------|------------------|------------------|
| Frequency range, Channel Bandwidth, Numbers and Frequencies | Band 2      | Frequency range: 1850 - 1910 MHz (BW = 60 MHz) |                  |                               |                    |                  |                  |
|                                                             |             | Channel Bandwidth                              |                  |                               |                    |                  |                  |
|                                                             |             | 20 MHz                                         | 15 MHz           | 10 MHz                        | 5 MHz              | 3 MHz            | 1.4 MHz          |
|                                                             | Low         | <b>18700</b><br><b>/1860</b>                   | 18675/<br>1857.5 | 18650/<br>1855                | 18625/<br>1852.5   | 18615/<br>1851.5 | 18607/<br>1850.7 |
|                                                             | Mid         | <b>18900/</b><br><b>1880</b>                   | 18900/<br>1880   | 18900/<br>1880                | 18900/<br>1880     | 18900/<br>1880   | 18900/<br>1880   |
|                                                             | High        | <b>19100/</b><br><b>1900</b>                   | 19125/<br>1902.5 | 19150/<br>1905                | 19175/<br>1907.5   | 19185/<br>1908.5 | 19193/<br>1909.3 |
|                                                             | Band 4      | Frequency range: 1710 - 1755 MHz (BW = 45 MHz) |                  |                               |                    |                  |                  |
|                                                             |             | Channel Bandwidth                              |                  |                               |                    |                  |                  |
|                                                             |             | 20 MHz <sup>1</sup>                            | 15 MHz           | 10 MHz                        | 5 MHz              | 3 MHz            | 1.4 MHz          |
|                                                             | Low         | 20050/<br>1720                                 | 20025/<br>1717.5 | 20000/<br>1715                | 19975/<br>1712.5   | 19965/<br>1711.5 | 19957/<br>1710.7 |
|                                                             | Mid         | <b>20175/</b><br><b>1732.5</b>                 | 20175/<br>1732.5 | 20175/<br>1732.5              | 20175/<br>1732.5   | 20175/<br>1732.5 | 20175/<br>1732.5 |
|                                                             | High        | 20300/<br>1745                                 | 20325/<br>1747.5 | 20350/<br>1750                | 20375/<br>1752.5   | 20385/<br>1753.5 | 20393/<br>1754.3 |
|                                                             | Band 5      | Frequency range: 824 - 849 MHz (BW = 25 MHz)   |                  |                               |                    |                  |                  |
|                                                             |             | Channel Bandwidth                              |                  |                               |                    |                  |                  |
|                                                             |             | 20 MHz                                         | 15 MHz           | 10 MHz <sup>1</sup>           | 5 MHz              | 3 MHz            | 1.4 MHz          |
|                                                             | Low         |                                                |                  | 20450/<br>829                 | 20425/<br>826.5    | 20415/<br>825.5  | 20407/<br>824.7  |
|                                                             | Mid         |                                                |                  | <b>20525/</b><br><b>836.5</b> | 20525/<br>836.5    | 20525/<br>836.5  | 20525/<br>836.5  |
|                                                             | High        |                                                |                  | 20600/<br>844                 | 20625/<br>846.5    | 20635/<br>847.5  | 20643/<br>848.3  |
|                                                             | Band 7      | Frequency range: 2500 - 2570 MHz (BW = 70 MHz) |                  |                               |                    |                  |                  |
|                                                             |             | Channel Bandwidth                              |                  |                               |                    |                  |                  |
|                                                             |             | 20 MHz                                         | 15 MHz           | 10 MHz                        | 5 MHz              | 3 MHz            | 1.4 MHz          |
|                                                             | Low         | <b>20850</b><br><b>2510</b>                    | 20825<br>2507.5  | 20800<br>2505                 | 20775<br>2502.5    |                  |                  |
|                                                             | Mid         | <b>21100</b><br><b>2535</b>                    | 21100<br>2535    | 21100<br>2535                 | 21100<br>2535      |                  |                  |
|                                                             | High        | <b>21350</b><br><b>2560</b>                    | 21375<br>2562.5  | 21400<br>2565                 | 21425<br>2567.5    |                  |                  |
|                                                             | Band 12     | Frequency range: 699 – 716 MHz (BW = 17 MHz)   |                  |                               |                    |                  |                  |
|                                                             |             | Channel Bandwidth                              |                  |                               |                    |                  |                  |
|                                                             |             | 20 MHz                                         | 15 MHz           | 10 MHz <sup>1</sup>           | 5 MHz              | 3 MHz            | 1.4 MHz          |
|                                                             | Low         |                                                |                  | 23060/<br>704                 | 23035/<br>701.5    | 23025/<br>700.5  | 23017/<br>699.7  |
|                                                             | Mid         |                                                |                  | <b>23095/</b><br><b>707.5</b> | 23095/<br>707.5    | 23095/<br>707.5  | 23095/<br>707.5  |
|                                                             | High        |                                                |                  | 23130/<br>711                 | 23155/<br>713.5    | 23165/<br>714.5  | 23173/<br>715.3  |
|                                                             | Band 13     | Frequency range: 777 - 787 MHz (BW = 10 MHz)   |                  |                               |                    |                  |                  |
|                                                             |             | Channel Bandwidth                              |                  |                               |                    |                  |                  |
|                                                             |             | 20 MHz                                         | 15 MHz           | 10 MHz <sup>1</sup>           | 5 MHz <sup>1</sup> | 3 MHz            | 1.4 MHz          |
|                                                             | Low         |                                                |                  |                               | 23205/<br>779.5    |                  |                  |
|                                                             | Mid         |                                                |                  | <b>23230/</b><br><b>782</b>   | 23230/<br>782      |                  |                  |
|                                                             | High        |                                                |                  |                               | 23255/<br>784.5    |                  |                  |
|                                                             | Band 14     | Frequency range: 788 - 798 MHz (BW = 10 MHz)   |                  |                               |                    |                  |                  |
|                                                             |             | Channel Bandwidth                              |                  |                               |                    |                  |                  |
|                                                             |             | 20 MHz                                         | 15 MHz           | 10 MHz <sup>1</sup>           | 5 MHz <sup>1</sup> | 3 MHz            | 1.4 MHz          |
|                                                             | Low         |                                                |                  |                               | 23305/<br>790.5    |                  |                  |
|                                                             | Mid         |                                                |                  | <b>23330/</b><br><b>793</b>   | 23330/<br>793      |                  |                  |
|                                                             | High        |                                                |                  |                               | 23355/<br>794.5    |                  |                  |

|                      |                                                 |                   |                        |                    |                   |                   |  |
|----------------------|-------------------------------------------------|-------------------|------------------------|--------------------|-------------------|-------------------|--|
|                      |                                                 |                   |                        |                    | 795.5             |                   |  |
| Band 17              | Frequency range: 704 - 716 MHz (BW = 12 MHz)    |                   |                        |                    |                   |                   |  |
|                      | Channel Bandwidth                               |                   |                        |                    |                   |                   |  |
|                      | 20 MHz                                          | 15 MHz            | 10 MHz <sup>1</sup>    | 5 MHz <sup>1</sup> | 3 MHz             | 1.4 MHz           |  |
| Low                  |                                                 |                   | 23780/<br>709          | 23755/<br>706.5    |                   |                   |  |
| Mid                  |                                                 |                   | <b>23790/<br/>710</b>  | 23790/<br>710      |                   |                   |  |
| High                 |                                                 |                   | 23800/<br>711          | 23825/<br>713.5    |                   |                   |  |
| Band 25              | Frequency range: 1850 - 1915 MHz (BW = 65 MHz)  |                   |                        |                    |                   |                   |  |
|                      | Channel Bandwidth                               |                   |                        |                    |                   |                   |  |
|                      | 20 MHz                                          | 15 MHz            | 10 MHz                 | 5 MHz              | 3 MHz             | 1.4 MHz           |  |
| Low                  | <b>26140/<br/>1860</b>                          | 26115/<br>1857.5  | 26090/<br>1855         | 26065/<br>1852.5   | 26055/<br>1851.5  | 26047/<br>1850.7  |  |
| Mid                  | <b>26365/<br/>1882.5</b>                        | 26365/<br>1882.5  | 26365/<br>1882.5       | 26365/<br>1882.5   | 26365/<br>1882.5  | 26365/<br>1882.5  |  |
| High                 | <b>26590/<br/>1905</b>                          | 26615/<br>1907.5  | 26640/<br>1910         | 26665/<br>1912.5   | 26675/<br>1913.5  | 26683/<br>1914.3  |  |
| Band 26              | Frequency range: 814 - 849 MHz (BW = 35 MHz)    |                   |                        |                    |                   |                   |  |
|                      | Channel Bandwidth                               |                   |                        |                    |                   |                   |  |
|                      | 20 MHz                                          | 15 MHz            | 10 MHz                 | 5 MHz              | 3 MHz             | 1.4 MHz           |  |
| Low                  |                                                 |                   | 26740/<br>819          | 26715/<br>816.5    | 26705/<br>815.5   | 26697/<br>814.7   |  |
| Mid                  |                                                 |                   | 26865/<br>831.5        | 26865/<br>831.5    | 26865/<br>831.5   | 26865/<br>831.5   |  |
| High                 |                                                 |                   | 26990/<br>844          | 27015/<br>846.5    | 27025/<br>847.5   | 27033/<br>848.3   |  |
| Band 30              | Frequency range: 2305 - 2315 MHz (BW = 10 MHz)  |                   |                        |                    |                   |                   |  |
|                      | Channel Bandwidth                               |                   |                        |                    |                   |                   |  |
|                      | 20 MHz                                          | 15 MHz            | 10 MHz <sup>1</sup>    | 5 MHz <sup>1</sup> | 3 MHz             | 1.4 MHz           |  |
| Low                  |                                                 |                   |                        | 27685/<br>2307.5   |                   |                   |  |
| Mid                  |                                                 |                   | <b>27710/<br/>2310</b> | 27710/<br>2310     |                   |                   |  |
| High                 |                                                 |                   |                        | 27735/<br>2312.5   |                   |                   |  |
| Band 41 <sup>2</sup> | Frequency range: 2496 - 2690 MHz (BW = 194 MHz) |                   |                        |                    |                   |                   |  |
|                      | Channel Bandwidth                               |                   |                        |                    |                   |                   |  |
|                      | 20 MHz                                          | 15 MHz            | 10 MHz                 | 5 MHz              | 3 MHz             | 1.4 MHz           |  |
| Low                  | <b>39750 / 2506.0</b>                           |                   |                        |                    |                   |                   |  |
| Low-Mid              | <b>40185 / 2549.5</b>                           |                   |                        |                    |                   |                   |  |
| Mid                  | <b>40620 / 2593.0</b>                           |                   |                        |                    |                   |                   |  |
| Mid-High             | <b>41055 / 2636.5</b>                           |                   |                        |                    |                   |                   |  |
| High                 | <b>41490 / 2680.0</b>                           |                   |                        |                    |                   |                   |  |
| Band 48              | Frequency range: 3550 - 3700 MHz (BW = 150 MHz) |                   |                        |                    |                   |                   |  |
|                      | Channel Bandwidth                               |                   |                        |                    |                   |                   |  |
|                      | 20 MHz                                          | 15 MHz            | 10 MHz                 | 5 MHz              | 3 MHz             | 1.4 MHz           |  |
| Low                  | <b>55340/<br/>3560</b>                          | 55315/<br>3557.5  | 55290/<br>3555         | 55265/<br>3552.5   |                   |                   |  |
| Mid-Low              | <b>55773/<br/>3603.3</b>                        | 55765/<br>3602.5  | 55757/<br>3601.7       | 55748/<br>3600.8   |                   |                   |  |
| Mid-High             | <b>56207/<br/>3646.7</b>                        | 56215/<br>3647.5  | 56223/<br>3648.3       | 56232/<br>3649.2   |                   |                   |  |
| High                 | <b>56640/<br/>3690</b>                          | 56665/<br>3692.5  | 56690/<br>3695         | 56715/<br>3697.5   |                   |                   |  |
| Band 66              | Frequency range: 1710 - 1780 MHz (BW = 70 MHz)  |                   |                        |                    |                   |                   |  |
|                      | Channel Bandwidth                               |                   |                        |                    |                   |                   |  |
|                      | 20 MHz                                          | 15 MHz            | 10 MHz                 | 5 MHz              | 3 MHz             | 1.4 MHz           |  |
| Low                  | <b>132072/<br/>1720</b>                         | 132047/<br>1717.5 | 132022/<br>1715        | 131997/<br>1712.5  | 131987/<br>1711.5 | 131979/<br>1710.7 |  |
| Mid                  | <b>132322/<br/>1745</b>                         | 132322/<br>1745   | 132322/<br>1745        | 132322/<br>1745    | 132322/<br>1745   | 132322/<br>1745   |  |
| High                 | <b>132572/<br/>1770</b>                         | 132597/<br>1772.5 | 132622/<br>1775        | 132647/<br>1777.5  | 132657/<br>1778.5 | 132665/<br>1779.3 |  |

|                                            | Band 71                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Frequency range: 663 - 698 MHz (BW = 35 MHz) |                     |                  |                  |        |          |            |                                                               |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |         |     |  |  |  |  |  |     |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|---------------------|------------------|------------------|--------|----------|------------|---------------------------------------------------------------|--|--|--|--|--|----------|---------|---------|-------|--------|--------|--------|------|-----|-----|-----|------|------|------|-----|--------|-----|-----|-----|------|------|------|-----|--------|-----|-----|-----|------|------|------|-----|--------|-----|-----|-----|------|------|------|-----|--------|-----|-----|-----|------|------|------|-----|---------|-----|--|--|--|--|--|-----|
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Channel Bandwidth                            |                     |                  |                  |        |          |            |                                                               |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |         |     |  |  |  |  |  |     |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 20 MHz <sup>1</sup>                          | 15 MHz <sup>1</sup> | 10 MHz           | 5 MHz            | 3 MHz  | 1.4 MHz  |            |                                                               |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |         |     |  |  |  |  |  |     |
|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 133222/<br>673                               | 133197/<br>670.5    | 133172/<br>668   | 133147/<br>665.5 |        |          |            |                                                               |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |         |     |  |  |  |  |  |     |
|                                            | Low                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                              |                     |                  |                  |        |          |            |                                                               |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |         |     |  |  |  |  |  |     |
|                                            | Mid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>133297/<br/>680.5</b>                     | 133297/<br>680.5    | 133297/<br>680.5 | 133297/<br>680.5 |        |          |            |                                                               |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |         |     |  |  |  |  |  |     |
|                                            | High                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 133372/<br>688                               | 133397/<br>690.5    | 133422/<br>693   | 133447/<br>695.5 |        |          |            |                                                               |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |         |     |  |  |  |  |  |     |
| LTE transmitter and antenna implementation | LTE can transmit from either ANT1, ANT2, ANT3, ANT4, and ANT6 Then antenna switching is implemented with a physical, "break-before-make" switch such that only one antenna can be used for LTE transmission at a time.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                              |                     |                  |                  |        |          |            |                                                               |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |         |     |  |  |  |  |  |     |
| Maximum power reduction (MPR)              | <p><b>Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3</b></p> <table border="1"> <thead> <tr> <th rowspan="2">Modulation</th><th colspan="6">Channel bandwidth / Transmission bandwidth (N<sub>RB</sub>)</th><th rowspan="2">MPR (dB)</th></tr> <tr> <th>1.4 MHz</th><th>3.0 MHz</th><th>5 MHz</th><th>10 MHz</th><th>15 MHz</th><th>20 MHz</th></tr> </thead> <tbody> <tr> <td>QPSK</td><td>&gt; 5</td><td>&gt; 4</td><td>&gt; 8</td><td>&gt; 12</td><td>&gt; 16</td><td>&gt; 18</td><td>≤ 1</td></tr> <tr> <td>16 QAM</td><td>≤ 5</td><td>≤ 4</td><td>≤ 8</td><td>≤ 12</td><td>≤ 16</td><td>≤ 18</td><td>≤ 1</td></tr> <tr> <td>16 QAM</td><td>&gt; 5</td><td>&gt; 4</td><td>&gt; 8</td><td>&gt; 12</td><td>&gt; 16</td><td>&gt; 18</td><td>≤ 2</td></tr> <tr> <td>64 QAM</td><td>≤ 5</td><td>≤ 4</td><td>≤ 8</td><td>≤ 12</td><td>≤ 16</td><td>≤ 18</td><td>≤ 2</td></tr> <tr> <td>64 QAM</td><td>&gt; 5</td><td>&gt; 4</td><td>&gt; 8</td><td>&gt; 12</td><td>&gt; 16</td><td>&gt; 18</td><td>≤ 3</td></tr> <tr> <td>256 QAM</td><td colspan="6">≥ 1</td><td>≤ 5</td></tr> </tbody> </table> <p>MPR Built-in by design</p> <p>The manufacturer MPR values are always within the 3GPP maximum MPR allowance but may not follow the default MPR values.</p> <p>A-MPR (additional MPR) was disabled during SAR testing</p> |                                              |                     |                  |                  |        |          | 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 |
| 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      |            |                                                               |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |         |     |  |  |  |  |  |     |
| Spectrum plots for RB configurations       | A properly configured base station simulator was used for the SAR and power measurements; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                              |                     |                  |                  |        |          |            |                                                               |  |  |  |  |  |          |         |         |       |        |        |        |      |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |        |     |     |     |      |      |      |     |         |     |  |  |  |  |  |     |

**Notes:**

- Maximum bandwidth does not support at least three non-overlapping channels in certain channel bandwidths. 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 per KDB 941225 D05 SAR for LTE Devices.
- LTE band 41 test channels in accordance with October 2014 TCB workshop for all channels bandwidths.
- SAR Testing for LTE was performed with the same number of RB and RB offsets transmitting on all TTI frames (maximum TTI).

## 6.4. LTE (TDD) Considerations

According to KDB 941225 D05 SAR for LTE Devices, for Time-Division Duplex (TDD) systems, SAR must be tested using a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by the defined 3GPP LTE TDD configurations.

LTE TDD Bands support 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations and Table 4.2-1 for Special subframe configurations.

Table 4.2-1: 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                              | $6592 \cdot T_s$                 | $(1+X) \cdot 2192 \cdot T_s$   | $(1+X) \cdot 2560 \cdot T_s$     | $7680 \cdot T_s$                   | $(1+X) \cdot 2192 \cdot T_s$   | $(1+X) \cdot 2560 \cdot T_s$     |
| 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                              | $26336 \cdot T_s$                | $(2+X) \cdot 2192 \cdot T_s$   | $(2+X) \cdot 2560 \cdot T_s$     | $7680 \cdot T_s$                   | $(2+X) \cdot 2192 \cdot T_s$   | $(2+X) \cdot 2560 \cdot T_s$     |
| 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                              | $24144 \cdot T_s$                | $13152 \cdot T_s$              | $12800 \cdot T_s$                | -                                  | -                              | -                                |
| 9                              | $13168 \cdot T_s$                |                                |                                  | -                                  | -                              | -                                |
| 10                             | $13168 \cdot T_s$                |                                |                                  | -                                  | -                              | -                                |

Table 4.2-2: Uplink-downlink configurations & Calculated Duty Cycle

| Uplink-Downlink Configuration | Downlink-to-Uplink Switch-point Periodicity | Subframe Number |   |   |   |   |   |   |   |   |   | Calculated Duty Cycle (%) |
|-------------------------------|---------------------------------------------|-----------------|---|---|---|---|---|---|---|---|---|---------------------------|
|                               |                                             | 0               | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |                           |
| 0                             | 5 ms                                        | D               | S | U | U | U | D | S | U | U | U | 63.3%                     |
| 1                             | 5 ms                                        | D               | S | U | U | D | D | S | U | U | D | 43.3%                     |
| 2                             | 5 ms                                        | D               | S | U | D | D | D | S | U | D | D | 23.3%                     |
| 3                             | 10 ms                                       | D               | S | U | U | U | D | D | D | D | D | 31.7%                     |
| 4                             | 10 ms                                       | D               | S | U | U | D | D | D | D | D | D | 21.7%                     |
| 5                             | 10 ms                                       | D               | S | U | D | D | D | D | D | D | D | 11.7%                     |
| 6                             | 5 ms                                        | D               | S | U | U | U | D | S | U | U | D | 53.3%                     |

Calculated Duty Cycle = Extended cyclic prefix in uplink \* ( $T_s$ ) \* # of S + # of U / period

### Note(s):

This device supports uplink-downlink configurations 0-6. The configuration with highest duty cycle was used for SAR Testing: configuration 0 at 63.3% duty cycle.

## 7. RF Exposure Conditions (Test Configurations)

This device has a total of 6 antennas. From Front of the device, antennas and supported frequencies are described and located as follows:

ANT1 (all WWAN bands) - located at the lower of the device.

ANT2 (all WWAN bands except for LTE Band 48) - located at the upper of the device.

ANT3 (all WWAN bands above 1700 MHz and Wi-Fi 2.4 GHz and Bluetooth) – located at lower left corner of the device. CDMA BC1 is not supported by this antenna.

ANT4 (all WWAN bands above 1700 MHz and Wi-Fi 2.4 GHz and Bluetooth) – located at upper right corner of the device. CDMA BC1 is not supported by this antenna.

ANT5 (Wi-Fi 5 GHz Bands) – located at lower left corner of the device.

ANT6 (LTE Band 48 and Wi-Fi 5 GHz Bands) – located at upper left corner of the device.

Refer to separate filing submission document for the proprietary design details of the antenna-to-antenna and antenna-to-edge(s) distances.

The Body-worn accessory test configurations were tested using a conservative minimum test separation distance of 5 mm.

### Lower Antenna

| Wireless technologies                | RF Exposure Conditions | DUT-to-User Separation | Test Position    | Antenna-to-edge/surface | SAR Required | Note |
|--------------------------------------|------------------------|------------------------|------------------|-------------------------|--------------|------|
| WWAN (ANT1)                          | Head                   | 0 mm                   | Left Touch       | N/A                     | Yes          |      |
|                                      |                        |                        | Left Tilt (15°)  | N/A                     | Yes          |      |
|                                      |                        |                        | Right Touch      | N/A                     | Yes          |      |
|                                      |                        |                        | Right Tilt (15°) | N/A                     | Yes          |      |
|                                      | Body/Hotspot           | 5 mm                   | Rear             | < 25 mm                 | Yes          | 2    |
|                                      |                        |                        | Front            | < 25 mm                 | Yes          | 2    |
|                                      | Hotspot                | 5 mm                   | Edge 1 (Top)     | > 25 mm                 | No           | 1    |
|                                      |                        |                        | Edge 2 (Right)   | < 25 mm                 | Yes          |      |
|                                      |                        |                        | Edge 3 (Bottom)  | < 25 mm                 | Yes          |      |
|                                      |                        |                        | Edge 4 (Left)    | < 25 mm                 | Yes          |      |
| WWAN/<br>Wi-Fi 2.4 GHz/<br>BT (ANT3) | Head                   | 0 mm                   | Left Touch       | N/A                     | Yes          |      |
|                                      |                        |                        | Left Tilt (15°)  | N/A                     | Yes          |      |
|                                      |                        |                        | Right Touch      | N/A                     | Yes          |      |
|                                      |                        |                        | Right Tilt (15°) | N/A                     | Yes          |      |
|                                      | Body/Hotspot           | 5 mm                   | Rear             | < 25 mm                 | Yes          | 2    |
|                                      |                        |                        | Front            | < 25 mm                 | Yes          | 2    |
|                                      | Hotspot                | 5 mm                   | Edge 1 (Top)     | > 25 mm                 | No           | 1    |
|                                      |                        |                        | Edge 2 (Right)   | > 25 mm                 | No           | 1    |
|                                      |                        |                        | Edge 3 (Bottom)  | < 25 mm                 | Yes          |      |
|                                      |                        |                        | Edge 4 (Left)    | < 25 mm                 | Yes          |      |
| Wi-Fi 5 GHz (ANT5)                   | Head                   | 0 mm                   | Left Touch       | N/A                     | Yes          |      |
|                                      |                        |                        | Left Tilt (15°)  | N/A                     | Yes          |      |
|                                      |                        |                        | Right Touch      | N/A                     | Yes          |      |
|                                      |                        |                        | Right Tilt (15°) | N/A                     | Yes          |      |
|                                      | Body/Hotspot           | 5 mm                   | Rear             | < 25 mm                 | Yes          | 2    |
|                                      |                        |                        | Front            | < 25 mm                 | Yes          | 2    |
|                                      | Hotspot                | 5 mm                   | Edge 1 (Top)     | > 25 mm                 | No           | 1    |
|                                      |                        |                        | Edge 2 (Right)   | > 25 mm                 | No           | 1    |
|                                      |                        |                        | Edge 3 (Bottom)  | < 25 mm                 | Yes          |      |
|                                      |                        |                        | Edge 4 (Left)    | < 25 mm                 | Yes          |      |

#### Note(s):

1. SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 941225 D06 Hotspot Mode.
2. The Body-worn minimum separation distance is 5 mm. To cover both body-worn and hotspot RF exposure conditions testing was performed at a separation distance of 5 mm.

**Upper Antenna**

| Wireless technologies                    | RF Exposure Conditions | DUT-to-User Separation | Test Position    | Antenna-to-edge/surface | SAR Required | Note |
|------------------------------------------|------------------------|------------------------|------------------|-------------------------|--------------|------|
| WWAN except for LTE Band 48 (ANT2)       | Head                   | 0 mm                   | Left Touch       | N/A                     | Yes          |      |
|                                          |                        |                        | Left Tilt (15°)  | N/A                     | Yes          |      |
|                                          |                        |                        | Right Touch      | N/A                     | Yes          |      |
|                                          |                        |                        | Right Tilt (15°) | N/A                     | Yes          |      |
|                                          | Body/Hotspot           | 5 mm                   | Rear             | < 25 mm                 | Yes          | 2    |
|                                          |                        |                        | Front            | < 25 mm                 | Yes          | 2    |
|                                          | Hotspot                | 5 mm                   | Edge 1 (Top)     | < 25 mm                 | Yes          |      |
|                                          |                        |                        | Edge 2 (Right)   | < 25 mm                 | Yes          |      |
|                                          |                        |                        | Edge 3 (Bottom)  | > 25 mm                 | No           | 1    |
|                                          |                        |                        | Edge 4 (Left)    | < 25 mm                 | Yes          |      |
| WWAN/<br>Wi-Fi 2.4 GHz/<br>BT<br>(ANT4)  | Head                   | 0 mm                   | Left Touch       | N/A                     | Yes          |      |
|                                          |                        |                        | Left Tilt (15°)  | N/A                     | Yes          |      |
|                                          |                        |                        | Right Touch      | N/A                     | Yes          |      |
|                                          |                        |                        | Right Tilt (15°) | N/A                     | Yes          |      |
|                                          | Body                   | 5 mm                   | Rear             | < 25 mm                 | Yes          | 2    |
|                                          |                        |                        | Front            | < 25 mm                 | Yes          | 2    |
|                                          | Hotspot                | 5 mm                   | Edge 1 (Top)     | < 25 mm                 | Yes          |      |
|                                          |                        |                        | Edge 2 (Right)   | < 25 mm                 | Yes          |      |
|                                          |                        |                        | Edge 3 (Bottom)  | > 25 mm                 | No           | 1    |
|                                          |                        |                        | Edge 4 (Left)    | > 25 mm                 | No           | 1    |
| LTE Band 48 and<br>Wi-Fi 5 GHz<br>(ANT6) | Head                   | 0 mm                   | Left Touch       | N/A                     | Yes          |      |
|                                          |                        |                        | Left Tilt (15°)  | N/A                     | Yes          |      |
|                                          |                        |                        | Right Touch      | N/A                     | Yes          |      |
|                                          |                        |                        | Right Tilt (15°) | N/A                     | Yes          |      |
|                                          | Body/Hotspot           | 5 mm                   | Rear             | < 25 mm                 | Yes          | 2    |
|                                          |                        |                        | Front            | < 25 mm                 | Yes          | 2    |
|                                          | Hotspot                | 5 mm                   | Edge 1 (Top)     | < 25 mm                 | Yes          |      |
|                                          |                        |                        | Edge 2 (Right)   | > 25 mm                 | No           | 1    |
|                                          |                        |                        | Edge 3 (Bottom)  | > 25 mm                 | No           | 1    |
|                                          |                        |                        | Edge 4 (Left)    | < 25 mm                 | Yes          |      |

**Note(s):**

1. SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 941225 D06 Hot Spot SAR.
2. The Body-worn minimum separation distance is 5 mm. To cover both body-worn and hotspot RF exposure conditions testing was performed at a separation distance of 5 mm.

## 8. Dielectric Property Measurements & System Check

### 8.1. Dielectric Property Measurements

The temperature of the tissue-equivalent medium used during measurement must also be within 18°C to 25°C and within  $\pm 2^\circ\text{C}$  of the temperature when the tissue parameters are characterized.

The dielectric parameters must be measured before the tissue-equivalent medium is used in a series of SAR measurements. The parameters should be re-measured after each 3 – 4 days of use; or earlier if the dielectric parameters can become out of tolerance; for example, when the parameters are marginal at the beginning of the measurement series.

Tissue dielectric parameters were measured at the low, middle and high frequency of each operating frequency range of the test device.

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  $\leq 3\text{ GHz}$ .

#### Tissue Dielectric Parameters

FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz

| Target Frequency (MHz) | Head         |                | Body         |                |
|------------------------|--------------|----------------|--------------|----------------|
|                        | $\epsilon_r$ | $\sigma$ (S/m) | $\epsilon_r$ | $\sigma$ (S/m) |
| 150                    | 52.3         | 0.76           | 61.9         | 0.80           |
| 300                    | 45.3         | 0.87           | 58.2         | 0.92           |
| 450                    | 43.5         | 0.87           | 56.7         | 0.94           |
| 835                    | 41.5         | 0.90           | 55.2         | 0.97           |
| 900                    | 41.5         | 0.97           | 55.0         | 1.05           |
| 915                    | 41.5         | 0.98           | 55.0         | 1.06           |
| 1450                   | 40.5         | 1.20           | 54.0         | 1.30           |
| 1610                   | 40.3         | 1.29           | 53.8         | 1.40           |
| 1800 – 2000            | 40.0         | 1.40           | 53.3         | 1.52           |
| 2450                   | 39.2         | 1.80           | 52.7         | 1.95           |
| 3000                   | 38.5         | 2.40           | 52.0         | 2.73           |
| 5000                   | 36.2         | 4.45           | 49.3         | 5.07           |
| 5100                   | 36.1         | 4.55           | 49.1         | 5.18           |
| 5200                   | 36.0         | 4.66           | 49.0         | 5.30           |
| 5300                   | 35.9         | 4.76           | 48.9         | 5.42           |
| 5400                   | 35.8         | 4.86           | 48.7         | 5.53           |
| 5500                   | 35.6         | 4.96           | 48.6         | 5.65           |
| 5600                   | 35.5         | 5.07           | 48.5         | 5.77           |
| 5700                   | 35.4         | 5.17           | 48.3         | 5.88           |
| 5800                   | 35.3         | 5.27           | 48.2         | 6.00           |

#### IEEE Std 1528-2013

Refer to Table 3 within the IEEE Std 1528-2013

**Dielectric Property Measurements Results:**

| SAR Lab | Date      | Band (MHz) | Tissue Type | Frequency (MHz) | Relative Permittivity ( $\epsilon_r$ ) |        |           | Conductivity ( $\sigma$ ) |        |           |
|---------|-----------|------------|-------------|-----------------|----------------------------------------|--------|-----------|---------------------------|--------|-----------|
|         |           |            |             |                 | Measured                               | Target | Delta (%) | Measured                  | Target | Delta (%) |
| A       | 6/18/2019 | 2600       | Head        | 2600            | 38.26                                  | 39.01  | -1.92     | 1.92                      | 1.96   | -2.25     |
|         |           |            |             | 2495            | 38.41                                  | 39.14  | -1.87     | 1.82                      | 1.85   | -1.39     |
|         |           |            |             | 2690            | 38.09                                  | 38.90  | -2.08     | 1.99                      | 2.06   | -3.32     |
| A       | 6/21/2019 | 2600       | Body        | 2600            | 51.60                                  | 52.51  | -1.73     | 2.10                      | 2.16   | -3.05     |
|         |           |            |             | 2495            | 51.85                                  | 52.64  | -1.51     | 1.97                      | 2.01   | -2.05     |
|         |           |            |             | 2690            | 51.33                                  | 52.40  | -2.04     | 2.20                      | 2.29   | -3.82     |
| A       | 6/21/2019 | 2600       | Head        | 2600            | 37.20                                  | 39.01  | -4.64     | 1.98                      | 1.96   | 1.06      |
|         |           |            |             | 2495            | 37.34                                  | 39.14  | -4.61     | 1.89                      | 1.85   | 2.40      |
|         |           |            |             | 2690            | 37.01                                  | 38.90  | -4.85     | 2.05                      | 2.06   | -0.31     |
| A       | 6/24/2019 | 2600       | Head        | 2600            | 37.83                                  | 39.01  | -3.03     | 1.92                      | 1.96   | -2.15     |
|         |           |            |             | 2495            | 37.97                                  | 39.14  | -3.00     | 1.83                      | 1.85   | -1.17     |
|         |           |            |             | 2690            | 37.66                                  | 38.90  | -3.18     | 1.99                      | 2.06   | -3.28     |
| A       | 6/24/2019 | 2600       | Body        | 2600            | 52.35                                  | 52.51  | -0.31     | 2.07                      | 2.16   | -4.11     |
|         |           |            |             | 2495            | 52.58                                  | 52.64  | -0.12     | 1.94                      | 2.01   | -3.44     |
|         |           |            |             | 2690            | 52.11                                  | 52.40  | -0.55     | 2.18                      | 2.29   | -4.73     |
| A       | 6/27/2019 | 2600       | Body        | 2600            | 52.75                                  | 52.51  | 0.46      | 2.24                      | 2.16   | 3.53      |
|         |           |            |             | 2495            | 53.05                                  | 52.64  | 0.77      | 2.10                      | 2.01   | 4.06      |
|         |           |            |             | 2690            | 52.43                                  | 52.40  | 0.06      | 2.35                      | 2.29   | 2.57      |
| A       | 6/27/2019 | 2600       | Head        | 2600            | 37.57                                  | 39.01  | -3.69     | 2.00                      | 1.96   | 2.13      |
|         |           |            |             | 2495            | 37.78                                  | 39.14  | -3.48     | 1.91                      | 1.85   | 3.05      |
|         |           |            |             | 2690            | 37.36                                  | 38.90  | -3.95     | 2.08                      | 2.06   | 0.80      |
| A       | 7/1/2019  | 2600       | Body        | 2600            | 50.08                                  | 52.51  | -4.63     | 2.14                      | 2.16   | -1.10     |
|         |           |            |             | 2495            | 50.33                                  | 52.64  | -4.39     | 2.01                      | 2.01   | -0.11     |
|         |           |            |             | 2690            | 49.81                                  | 52.40  | -4.94     | 2.24                      | 2.29   | -1.89     |
| A       | 7/1/2019  | 2600       | Head        | 2600            | 37.32                                  | 39.01  | -4.33     | 1.97                      | 1.96   | 0.45      |
|         |           |            |             | 2495            | 37.45                                  | 39.14  | -4.33     | 1.87                      | 1.85   | 1.37      |
|         |           |            |             | 2690            | 37.15                                  | 38.90  | -4.49     | 2.05                      | 2.06   | -0.56     |
| A       | 7/5/2019  | 2600       | Head        | 2600            | 39.53                                  | 39.01  | 1.33      | 1.92                      | 1.96   | -1.94     |
|         |           |            |             | 2495            | 39.66                                  | 39.14  | 1.32      | 1.83                      | 1.85   | -1.17     |
|         |           |            |             | 2690            | 39.38                                  | 38.90  | 1.24      | 2.01                      | 2.06   | -2.55     |
| A       | 7/5/2019  | 2600       | Body        | 2600            | 51.44                                  | 52.51  | -2.04     | 2.07                      | 2.16   | -4.30     |
|         |           |            |             | 2495            | 51.65                                  | 52.64  | -1.89     | 1.94                      | 2.01   | -3.44     |
|         |           |            |             | 2690            | 51.20                                  | 52.40  | -2.29     | 2.18                      | 2.29   | -4.65     |
| A       | 7/9/2019  | 2600       | Body        | 2600            | 51.72                                  | 52.51  | -1.51     | 2.07                      | 2.16   | -4.06     |
|         |           |            |             | 2495            | 51.95                                  | 52.64  | -1.32     | 1.94                      | 2.01   | -3.59     |
|         |           |            |             | 2690            | 51.44                                  | 52.40  | -1.83     | 2.18                      | 2.29   | -4.65     |
| A       | 7/9/2019  | 2600       | Head        | 2600            | 37.52                                  | 39.01  | -3.82     | 1.94                      | 1.96   | -1.08     |
|         |           |            |             | 2495            | 37.65                                  | 39.14  | -3.81     | 1.85                      | 1.85   | -0.20     |
|         |           |            |             | 2690            | 37.32                                  | 38.90  | -4.06     | 2.01                      | 2.06   | -2.21     |
| A       | 7/29/2019 | 2600       | Head        | 2600            | 39.54                                  | 39.01  | 1.36      | 1.93                      | 1.96   | -1.54     |
|         |           |            |             | 2495            | 39.64                                  | 39.14  | 1.27      | 1.83                      | 1.85   | -0.85     |
|         |           |            |             | 2690            | 39.40                                  | 38.90  | 1.29      | 2.01                      | 2.06   | -2.50     |
| A       | 7/29/2019 | 2600       | Body        | 2600            | 53.49                                  | 52.51  | 1.86      | 2.12                      | 2.16   | -1.80     |
|         |           |            |             | 2495            | 53.78                                  | 52.64  | 2.16      | 1.98                      | 2.01   | -1.45     |
|         |           |            |             | 2690            | 53.18                                  | 52.40  | 1.49      | 2.23                      | 2.29   | -2.42     |

**Dielectric Property Measurements Results (Continued):**

| SAR Lab | Date      | Band (MHz) | Tissue Type | Frequency (MHz) | Relative Permittivity ( $\epsilon_r$ ) |        |           | Conductivity ( $\sigma$ ) |        |           |
|---------|-----------|------------|-------------|-----------------|----------------------------------------|--------|-----------|---------------------------|--------|-----------|
|         |           |            |             |                 | Measured                               | Target | Delta (%) | Measured                  | Target | Delta (%) |
| B       | 6/14/2019 | 1900       | Body        | 1900            | 50.81                                  | 53.30  | -4.67     | 1.54                      | 1.52   | 1.32      |
|         |           |            |             | 1850            | 50.99                                  | 53.30  | -4.33     | 1.49                      | 1.52   | -1.84     |
|         |           |            |             | 1920            | 50.78                                  | 53.30  | -4.73     | 1.57                      | 1.52   | 2.96      |
| B       | 6/14/2019 | 1900       | Head        | 1900            | 38.28                                  | 40.00  | -4.30     | 1.38                      | 1.40   | -1.14     |
|         |           |            |             | 1850            | 38.35                                  | 40.00  | -4.13     | 1.36                      | 1.40   | -2.64     |
|         |           |            |             | 1920            | 38.29                                  | 40.00  | -4.28     | 1.40                      | 1.40   | -0.14     |
| B       | 6/17/2019 | 1750       | Body        | 1750            | 51.93                                  | 53.44  | -2.83     | 1.54                      | 1.49   | 3.56      |
|         |           |            |             | 1710            | 52.08                                  | 53.54  | -2.73     | 1.49                      | 1.46   | 2.22      |
|         |           |            |             | 1755            | 51.89                                  | 53.43  | -2.88     | 1.55                      | 1.49   | 3.74      |
| B       | 6/17/2019 | 1750       | Head        | 1750            | 39.15                                  | 40.08  | -2.33     | 1.37                      | 1.37   | 0.00      |
|         |           |            |             | 1710            | 39.20                                  | 40.15  | -2.36     | 1.35                      | 1.35   | -0.03     |
|         |           |            |             | 1755            | 39.12                                  | 40.08  | -2.39     | 1.37                      | 1.37   | -0.06     |
| B       | 6/17/2019 | 1900       | Body        | 1900            | 53.55                                  | 53.30  | 0.47      | 1.56                      | 1.52   | 2.57      |
|         |           |            |             | 1850            | 53.77                                  | 53.30  | 0.88      | 1.50                      | 1.52   | -1.05     |
|         |           |            |             | 1920            | 53.49                                  | 53.30  | 0.36      | 1.58                      | 1.52   | 4.21      |
| B       | 6/17/2019 | 1900       | Head        | 1900            | 38.70                                  | 40.00  | -3.25     | 1.44                      | 1.40   | 3.14      |
|         |           |            |             | 1850            | 38.77                                  | 40.00  | -3.07     | 1.42                      | 1.40   | 1.21      |
|         |           |            |             | 1920            | 38.70                                  | 40.00  | -3.25     | 1.46                      | 1.40   | 4.29      |
| B       | 6/21/2019 | 1750       | Head        | 1750            | 38.26                                  | 40.08  | -4.55     | 1.37                      | 1.37   | -0.14     |
|         |           |            |             | 1710            | 38.32                                  | 40.15  | -4.55     | 1.34                      | 1.35   | -0.40     |
|         |           |            |             | 1755            | 38.25                                  | 40.08  | -4.56     | 1.37                      | 1.37   | -0.13     |
| B       | 6/21/2019 | 1750       | Body        | 1750            | 51.20                                  | 53.44  | -4.19     | 1.51                      | 1.49   | 1.67      |
|         |           |            |             | 1710            | 51.32                                  | 53.54  | -4.15     | 1.46                      | 1.46   | 0.17      |
|         |           |            |             | 1755            | 51.17                                  | 53.43  | -4.23     | 1.52                      | 1.49   | 1.86      |
| B       | 6/25/2019 | 1750       | Head        | 1750            | 40.76                                  | 40.08  | 1.68      | 1.35                      | 1.37   | -1.24     |
|         |           |            |             | 1710            | 40.79                                  | 40.15  | 1.60      | 1.33                      | 1.35   | -1.52     |
|         |           |            |             | 1755            | 40.75                                  | 40.08  | 1.68      | 1.36                      | 1.37   | -1.22     |
| B       | 6/25/2019 | 1750       | Body        | 1750            | 53.69                                  | 53.44  | 0.47      | 1.50                      | 1.49   | 0.60      |
|         |           |            |             | 1710            | 53.78                                  | 53.54  | 0.44      | 1.45                      | 1.46   | -0.99     |
|         |           |            |             | 1755            | 53.67                                  | 53.43  | 0.45      | 1.50                      | 1.49   | 0.72      |
| B       | 6/29/2019 | 1750       | Head        | 1750            | 39.42                                  | 40.08  | -1.66     | 1.32                      | 1.37   | -3.87     |
|         |           |            |             | 1710            | 39.43                                  | 40.15  | -1.78     | 1.29                      | 1.35   | -4.04     |
|         |           |            |             | 1755            | 39.41                                  | 40.08  | -1.66     | 1.32                      | 1.37   | -3.92     |
| B       | 6/29/2019 | 1750       | Body        | 1750            | 51.18                                  | 53.44  | -4.23     | 1.48                      | 1.49   | -0.35     |
|         |           |            |             | 1710            | 51.26                                  | 53.54  | -4.26     | 1.44                      | 1.46   | -1.75     |
|         |           |            |             | 1755            | 51.16                                  | 53.43  | -4.25     | 1.49                      | 1.49   | -0.15     |
| B       | 7/2/2019  | 1750       | Body        | 1750            | 53.04                                  | 53.44  | -0.75     | 1.48                      | 1.49   | -0.41     |
|         |           |            |             | 1710            | 53.15                                  | 53.54  | -0.74     | 1.43                      | 1.46   | -2.02     |
|         |           |            |             | 1755            | 53.02                                  | 53.43  | -0.76     | 1.49                      | 1.49   | -0.28     |

**Dielectric Property Measurements Results (Continued):**

| SAR Lab | Date      | Band (MHz) | Tissue Type | Frequency (MHz) | Relative Permittivity ( $\epsilon_r$ ) |        |           | Conductivity ( $\sigma$ ) |        |           |
|---------|-----------|------------|-------------|-----------------|----------------------------------------|--------|-----------|---------------------------|--------|-----------|
|         |           |            |             |                 | Measured                               | Target | Delta (%) | Measured                  | Target | Delta (%) |
| B       | 7/2/2019  | 1750       | Head        | 1750            | 40.61                                  | 40.08  | 1.31      | 1.33                      | 1.37   | -2.63     |
|         |           |            |             | 1710            | 40.60                                  | 40.15  | 1.13      | 1.30                      | 1.35   | -3.30     |
|         |           |            |             | 1755            | 40.60                                  | 40.08  | 1.31      | 1.34                      | 1.37   | -2.54     |
| B       | 7/3/2019  | 1900       | Head        | 1900            | 39.03                                  | 40.00  | -2.43     | 1.44                      | 1.40   | 2.86      |
|         |           |            |             | 1850            | 39.09                                  | 40.00  | -2.27     | 1.41                      | 1.40   | 1.00      |
|         |           |            |             | 1920            | 39.04                                  | 40.00  | -2.40     | 1.45                      | 1.40   | 3.71      |
| B       | 7/3/2019  | 1900       | Body        | 1900            | 51.13                                  | 53.30  | -4.07     | 1.57                      | 1.52   | 2.96      |
|         |           |            |             | 1850            | 51.31                                  | 53.30  | -3.73     | 1.51                      | 1.52   | -0.72     |
|         |           |            |             | 1920            | 51.09                                  | 53.30  | -4.15     | 1.59                      | 1.52   | 4.47      |
| B       | 7/6/2019  | 1750       | Head        | 1750            | 41.28                                  | 40.08  | 2.98      | 1.33                      | 1.37   | -3.14     |
|         |           |            |             | 1710            | 41.30                                  | 40.15  | 2.87      | 1.30                      | 1.35   | -3.37     |
|         |           |            |             | 1755            | 41.26                                  | 40.08  | 2.95      | 1.33                      | 1.37   | -3.19     |
| B       | 7/6/2019  | 1750       | Body        | 1750            | 51.35                                  | 53.44  | -3.91     | 1.50                      | 1.49   | 0.93      |
|         |           |            |             | 1710            | 51.45                                  | 53.54  | -3.91     | 1.45                      | 1.46   | -0.72     |
|         |           |            |             | 1755            | 51.33                                  | 53.43  | -3.93     | 1.51                      | 1.49   | 1.06      |
| B       | 7/30/2019 | 2600       | Head        | 2600            | 37.73                                  | 39.01  | -3.28     | 1.94                      | 1.96   | -1.03     |
|         |           |            |             | 2495            | 37.90                                  | 39.14  | -3.18     | 1.85                      | 1.85   | -0.14     |
|         |           |            |             | 2690            | 37.52                                  | 38.90  | -3.54     | 2.02                      | 2.06   | -2.06     |
| C       | 6/18/2019 | 1900       | Head        | 1900            | 39.29                                  | 40.00  | -1.78     | 1.44                      | 1.40   | 2.64      |
|         |           |            |             | 1850            | 39.54                                  | 40.00  | -1.15     | 1.40                      | 1.40   | -0.07     |
|         |           |            |             | 1920            | 39.25                                  | 40.00  | -1.88     | 1.46                      | 1.40   | 4.07      |
| C       | 6/18/2019 | 1900       | Body        | 1900            | 52.78                                  | 53.30  | -0.98     | 1.55                      | 1.52   | 2.04      |
|         |           |            |             | 1850            | 52.95                                  | 53.30  | -0.66     | 1.51                      | 1.52   | -0.59     |
|         |           |            |             | 1920            | 52.75                                  | 53.30  | -1.03     | 1.57                      | 1.52   | 3.36      |
| C       | 6/21/2019 | 1900       | Body        | 1900            | 54.66                                  | 53.30  | 2.55      | 1.56                      | 1.52   | 2.37      |
|         |           |            |             | 1850            | 54.77                                  | 53.30  | 2.76      | 1.51                      | 1.52   | -0.39     |
|         |           |            |             | 1920            | 54.64                                  | 53.30  | 2.51      | 1.58                      | 1.52   | 3.75      |
| C       | 6/21/2019 | 1900       | Head        | 1900            | 38.35                                  | 40.00  | -4.13     | 1.43                      | 1.40   | 2.21      |
|         |           |            |             | 1850            | 38.53                                  | 40.00  | -3.68     | 1.39                      | 1.40   | -0.79     |
|         |           |            |             | 1920            | 38.31                                  | 40.00  | -4.22     | 1.45                      | 1.40   | 3.79      |
| C       | 6/25/2019 | 1900       | Head        | 1900            | 38.44                                  | 40.00  | -3.90     | 1.44                      | 1.40   | 2.79      |
|         |           |            |             | 1850            | 38.63                                  | 40.00  | -3.42     | 1.40                      | 1.40   | 0.00      |
|         |           |            |             | 1920            | 38.39                                  | 40.00  | -4.03     | 1.46                      | 1.40   | 4.29      |
| C       | 6/25/2019 | 1900       | Body        | 1900            | 51.25                                  | 53.30  | -3.85     | 1.52                      | 1.52   | 0.26      |
|         |           |            |             | 1850            | 51.38                                  | 53.30  | -3.60     | 1.48                      | 1.52   | -2.37     |
|         |           |            |             | 1920            | 51.21                                  | 53.30  | -3.92     | 1.55                      | 1.52   | 1.64      |
| C       | 6/29/2019 | 1900       | Head        | 1900            | 38.94                                  | 40.00  | -2.65     | 1.43                      | 1.40   | 2.21      |
|         |           |            |             | 1850            | 39.16                                  | 40.00  | -2.10     | 1.39                      | 1.40   | -0.79     |
|         |           |            |             | 1920            | 38.88                                  | 40.00  | -2.80     | 1.45                      | 1.40   | 3.57      |
| C       | 6/29/2019 | 1900       | Body        | 1900            | 51.43                                  | 53.30  | -3.51     | 1.51                      | 1.52   | -0.79     |
|         |           |            |             | 1850            | 51.61                                  | 53.30  | -3.17     | 1.47                      | 1.52   | -3.42     |
|         |           |            |             | 1920            | 51.40                                  | 53.30  | -3.56     | 1.53                      | 1.52   | 0.46      |
| C       | 7/2/2019  | 1900       | Body        | 1900            | 52.29                                  | 53.30  | -1.89     | 1.50                      | 1.52   | -1.58     |
|         |           |            |             | 1850            | 52.42                                  | 53.30  | -1.65     | 1.46                      | 1.52   | -4.21     |
|         |           |            |             | 1920            | 52.26                                  | 53.30  | -1.95     | 1.52                      | 1.52   | -0.26     |

**Dielectric Property Measurements Results (Continued):**

| SAR Lab | Date      | Band (MHz) | Tissue Type | Frequency (MHz) | Relative Permittivity ( $\epsilon_r$ ) |        |           | Conductivity ( $\sigma$ ) |        |           |
|---------|-----------|------------|-------------|-----------------|----------------------------------------|--------|-----------|---------------------------|--------|-----------|
|         |           |            |             |                 | Measured                               | Target | Delta (%) | Measured                  | Target | Delta (%) |
| C       | 7/2/2019  | 1900       | Head        | 1900            | 39.32                                  | 40.00  | -1.70     | 1.43                      | 1.40   | 1.79      |
|         |           |            |             | 1850            | 39.49                                  | 40.00  | -1.28     | 1.39                      | 1.40   | -0.93     |
|         |           |            |             | 1920            | 39.27                                  | 40.00  | -1.82     | 1.45                      | 1.40   | 3.21      |
| C       | 7/6/2019  | 1900       | Body        | 1900            | 51.49                                  | 53.30  | -3.40     | 1.49                      | 1.52   | -2.04     |
|         |           |            |             | 1850            | 51.61                                  | 53.30  | -3.17     | 1.45                      | 1.52   | -4.67     |
|         |           |            |             | 1920            | 51.46                                  | 53.30  | -3.45     | 1.51                      | 1.52   | -0.79     |
| C       | 7/6/2019  | 1900       | Head        | 1900            | 41.62                                  | 40.00  | 4.05      | 1.39                      | 1.40   | -0.93     |
|         |           |            |             | 1850            | 41.77                                  | 40.00  | 4.43      | 1.35                      | 1.40   | -3.64     |
|         |           |            |             | 1920            | 41.57                                  | 40.00  | 3.93      | 1.41                      | 1.40   | 0.50      |
| D       | 6/20/2019 | 2600       | Head        | 2600            | 37.66                                  | 39.01  | -3.46     | 1.99                      | 1.96   | 1.52      |
|         |           |            |             | 2495            | 37.82                                  | 39.14  | -3.38     | 1.90                      | 1.85   | 2.72      |
|         |           |            |             | 2690            | 37.47                                  | 38.90  | -3.67     | 2.06                      | 2.06   | 0.17      |
| D       | 6/21/2019 | 2300       | Body        | 2300            | 50.77                                  | 52.90  | -4.03     | 1.82                      | 1.80   | 0.69      |
|         |           |            |             | 2350            | 50.61                                  | 52.84  | -4.22     | 1.87                      | 1.85   | 0.77      |
|         |           |            |             | 2400            | 50.42                                  | 52.77  | -4.46     | 1.92                      | 1.90   | 1.21      |
| D       | 6/21/2019 | 2300       | Head        | 2300            | 39.49                                  | 39.47  | 0.04      | 1.73                      | 1.66   | 3.68      |
|         |           |            |             | 2350            | 39.40                                  | 39.38  | 0.04      | 1.76                      | 1.71   | 2.95      |
|         |           |            |             | 2400            | 39.30                                  | 39.30  | 0.01      | 1.80                      | 1.75   | 2.47      |
| D       | 6/21/2019 | 2600       | Body        | 2600            | 50.72                                  | 52.51  | -3.41     | 2.22                      | 2.16   | 2.60      |
|         |           |            |             | 2495            | 51.01                                  | 52.64  | -3.10     | 2.08                      | 2.01   | 3.22      |
|         |           |            |             | 2690            | 50.40                                  | 52.40  | -3.81     | 2.33                      | 2.29   | 1.95      |
| D       | 6/24/2019 | 2300       | Head        | 2300            | 41.00                                  | 39.47  | 3.87      | 1.71                      | 1.66   | 2.84      |
|         |           |            |             | 2350            | 40.91                                  | 39.38  | 3.87      | 1.74                      | 1.71   | 2.13      |
|         |           |            |             | 2400            | 40.81                                  | 39.30  | 3.85      | 1.78                      | 1.75   | 1.62      |
| D       | 6/24/2019 | 2600       | Head        | 2600            | 40.57                                  | 39.01  | 4.00      | 1.95                      | 1.96   | -0.52     |
|         |           |            |             | 2495            | 40.70                                  | 39.14  | 3.98      | 1.86                      | 1.85   | 0.45      |
|         |           |            |             | 2690            | 40.39                                  | 38.90  | 3.84      | 2.03                      | 2.06   | -1.58     |
| D       | 6/24/2019 | 2300       | Body        | 2300            | 51.23                                  | 52.90  | -3.16     | 1.76                      | 1.80   | -2.52     |
|         |           |            |             | 2350            | 51.08                                  | 52.84  | -3.33     | 1.81                      | 1.85   | -2.31     |
|         |           |            |             | 2400            | 50.92                                  | 52.77  | -3.51     | 1.86                      | 1.90   | -1.85     |
| D       | 6/24/2019 | 2600       | Body        | 2600            | 50.43                                  | 52.51  | -3.96     | 2.10                      | 2.16   | -2.72     |
|         |           |            |             | 2495            | 50.70                                  | 52.64  | -3.69     | 1.97                      | 2.01   | -2.00     |
|         |           |            |             | 2690            | 50.16                                  | 52.40  | -4.27     | 2.21                      | 2.29   | -3.29     |
| D       | 6/27/2019 | 2300       | Body        | 2300            | 51.69                                  | 52.90  | -2.30     | 1.83                      | 1.80   | 1.41      |
|         |           |            |             | 2350            | 51.52                                  | 52.84  | -2.50     | 1.89                      | 1.85   | 2.01      |
|         |           |            |             | 2400            | 51.33                                  | 52.77  | -2.73     | 1.95                      | 1.90   | 2.69      |
| D       | 6/27/2019 | 2600       | Body        | 2600            | 50.73                                  | 52.51  | -3.40     | 2.19                      | 2.16   | 1.49      |
|         |           |            |             | 2495            | 51.03                                  | 52.64  | -3.06     | 2.06                      | 2.01   | 2.42      |
|         |           |            |             | 2690            | 50.41                                  | 52.40  | -3.79     | 2.30                      | 2.29   | 0.60      |
| D       | 6/29/2019 | 2300       | Head        | 2300            | 38.87                                  | 39.47  | -1.53     | 1.66                      | 1.66   | -0.10     |
|         |           |            |             | 2350            | 38.79                                  | 39.38  | -1.51     | 1.69                      | 1.71   | -0.86     |
|         |           |            |             | 2400            | 38.70                                  | 39.30  | -1.52     | 1.73                      | 1.75   | -1.29     |
| D       | 6/29/2019 | 2600       | Head        | 2600            | 38.47                                  | 39.01  | -1.39     | 1.89                      | 1.96   | -3.68     |
|         |           |            |             | 2495            | 38.61                                  | 39.14  | -1.36     | 1.80                      | 1.85   | -2.47     |
|         |           |            |             | 2690            | 38.29                                  | 38.90  | -1.56     | 1.96                      | 2.06   | -4.93     |
| D       | 7/1/2019  | 2300       | Body        | 2300            | 51.15                                  | 52.90  | -3.32     | 1.84                      | 1.80   | 1.97      |
|         |           |            |             | 2350            | 51.01                                  | 52.84  | -3.46     | 1.84                      | 1.85   | -0.64     |
|         |           |            |             | 2400            | 50.79                                  | 52.77  | -3.76     | 1.94                      | 1.90   | 2.11      |
| D       | 7/1/2019  | 2600       | Body        | 2600            | 50.08                                  | 52.51  | -4.63     | 2.16                      | 2.16   | 0.10      |
|         |           |            |             | 2495            | 50.31                                  | 52.64  | -4.43     | 2.03                      | 2.01   | 0.78      |
|         |           |            |             | 2690            | 49.81                                  | 52.40  | -4.94     | 2.25                      | 2.29   | -1.85     |
| D       | 7/5/2019  | 2600       | Head        | 2600            | 37.53                                  | 39.01  | -3.80     | 1.91                      | 1.96   | -2.66     |
|         |           |            |             | 2495            | 37.64                                  | 39.14  | -3.84     | 1.82                      | 1.85   | -1.71     |
|         |           |            |             | 2690            | 37.37                                  | 38.90  | -3.93     | 1.99                      | 2.06   | -3.57     |

**Dielectric Property Measurements Results (Continued):**

| SAR Lab | Date      | Band (MHz) | Tissue Type | Frequency (MHz) | Relative Permittivity ( $\epsilon_r$ ) |        |           | Conductivity ( $\sigma$ ) |        |           |
|---------|-----------|------------|-------------|-----------------|----------------------------------------|--------|-----------|---------------------------|--------|-----------|
|         |           |            |             |                 | Measured                               | Target | Delta (%) | Measured                  | Target | Delta (%) |
| D       | 7/5/2019  | 2600       | Body        | 2600            | 51.61                                  | 52.51  | -1.72     | 2.11                      | 2.16   | -2.40     |
|         |           |            |             | 2495            | 51.83                                  | 52.64  | -1.54     | 1.98                      | 2.01   | -1.50     |
|         |           |            |             | 2690            | 51.35                                  | 52.40  | -2.00     | 2.22                      | 2.29   | -2.77     |
| D       | 7/5/2019  | 2300       | Head        | 2300            | 37.99                                  | 39.47  | -3.76     | 1.68                      | 1.66   | 0.92      |
|         |           |            |             | 2350            | 37.91                                  | 39.38  | -3.74     | 1.71                      | 1.71   | 0.02      |
|         |           |            |             | 2400            | 37.79                                  | 39.30  | -3.83     | 1.75                      | 1.75   | -0.27     |
| D       | 7/5/2019  | 2300       | Body        | 2300            | 52.41                                  | 52.90  | -0.93     | 1.76                      | 1.80   | -2.19     |
|         |           |            |             | 2350            | 52.26                                  | 52.84  | -1.09     | 1.81                      | 1.85   | -1.99     |
|         |           |            |             | 2400            | 52.10                                  | 52.77  | -1.27     | 1.88                      | 1.90   | -1.11     |
| D       | 7/9/2019  | 2600       | Head        | 2600            | 38.26                                  | 39.01  | -1.92     | 1.95                      | 1.96   | -0.47     |
|         |           |            |             | 2495            | 38.39                                  | 39.14  | -1.92     | 1.86                      | 1.85   | 0.56      |
|         |           |            |             | 2690            | 38.07                                  | 38.90  | -2.13     | 2.03                      | 2.06   | -1.58     |
| D       | 7/9/2019  | 2600       | Body        | 2600            | 50.94                                  | 52.51  | -2.99     | 2.11                      | 2.16   | -2.49     |
|         |           |            |             | 2495            | 51.18                                  | 52.64  | -2.78     | 1.98                      | 2.01   | -1.80     |
|         |           |            |             | 2690            | 50.65                                  | 52.40  | -3.33     | 2.22                      | 2.29   | -3.16     |
| D       | 7/29/2019 | 2600       | Head        | 2600            | 39.03                                  | 39.01  | 0.05      | 1.99                      | 1.96   | 1.37      |
|         |           |            |             | 2495            | 39.19                                  | 39.14  | 0.12      | 1.89                      | 1.85   | 2.07      |
|         |           |            |             | 2690            | 38.82                                  | 38.90  | -0.20     | 2.06                      | 2.06   | 0.22      |
| D       | 7/29/2019 | 2600       | Body        | 2600            | 52.54                                  | 52.51  | 0.06      | 2.11                      | 2.16   | -2.44     |
|         |           |            |             | 2495            | 52.82                                  | 52.64  | 0.34      | 1.97                      | 2.01   | -2.00     |
|         |           |            |             | 2690            | 52.23                                  | 52.40  | -0.32     | 2.22                      | 2.29   | -2.99     |
| E       | 6/17/2019 | 5750       | Body        | 5750            | 47.43                                  | 48.27  | -1.75     | 6.00                      | 5.94   | 1.00      |
|         |           |            |             | 5700            | 47.49                                  | 48.34  | -1.76     | 5.95                      | 5.88   | 1.20      |
|         |           |            |             | 5850            | 47.31                                  | 48.20  | -1.85     | 6.14                      | 6.00   | 2.40      |
| E       | 6/17/2019 | 5750       | Head        | 5750            | 35.60                                  | 35.36  | 0.67      | 5.01                      | 5.21   | -3.98     |
|         |           |            |             | 5700            | 35.67                                  | 35.42  | 0.71      | 4.97                      | 5.16   | -3.81     |
|         |           |            |             | 5850            | 35.48                                  | 35.30  | 0.51      | 5.12                      | 5.27   | -2.79     |
| E       | 6/20/2019 | 5750       | Head        | 5750            | 35.22                                  | 35.36  | -0.40     | 5.03                      | 5.21   | -3.56     |
|         |           |            |             | 5700            | 35.31                                  | 35.42  | -0.31     | 4.97                      | 5.16   | -3.73     |
|         |           |            |             | 5850            | 35.13                                  | 35.30  | -0.48     | 5.12                      | 5.27   | -2.92     |
| E       | 6/20/2019 | 5750       | Body        | 5750            | 46.75                                  | 48.27  | -3.16     | 6.07                      | 5.94   | 2.29      |
|         |           |            |             | 5700            | 46.85                                  | 48.34  | -3.09     | 6.00                      | 5.88   | 2.10      |
|         |           |            |             | 5850            | 46.63                                  | 48.20  | -3.26     | 6.20                      | 6.00   | 3.38      |
| E       | 6/24/2019 | 5750       | Head        | 5750            | 34.82                                  | 35.36  | -1.53     | 5.07                      | 5.21   | -2.74     |
|         |           |            |             | 5700            | 34.92                                  | 35.42  | -1.41     | 5.01                      | 5.16   | -2.97     |
|         |           |            |             | 5850            | 34.72                                  | 35.30  | -1.64     | 5.17                      | 5.27   | -1.84     |
| E       | 6/24/2019 | 5750       | Body        | 5750            | 46.10                                  | 48.27  | -4.50     | 6.11                      | 5.94   | 2.93      |
|         |           |            |             | 5700            | 46.25                                  | 48.34  | -4.33     | 5.99                      | 5.88   | 1.84      |
|         |           |            |             | 5850            | 45.96                                  | 48.20  | -4.65     | 6.21                      | 6.00   | 3.50      |
| E       | 6/24/2019 | 2450       | Body        | 2450            | 50.30                                  | 52.70  | -4.55     | 1.94                      | 1.95   | -0.36     |
|         |           |            |             | 2400            | 50.45                                  | 52.77  | -4.40     | 1.88                      | 1.90   | -1.16     |
|         |           |            |             | 2480            | 50.24                                  | 52.66  | -4.60     | 1.98                      | 1.99   | -0.56     |

**Dielectric Property Measurements Results (Continued):**

| SAR Lab | Date      | Band (MHz) | Tissue Type | Frequency (MHz) | Relative Permittivity ( $\epsilon_r$ ) |        |           | Conductivity ( $\sigma$ ) |        |           |
|---------|-----------|------------|-------------|-----------------|----------------------------------------|--------|-----------|---------------------------|--------|-----------|
|         |           |            |             |                 | Measured                               | Target | Delta (%) | Measured                  | Target | Delta (%) |
| E       | 6/28/2019 | 5750       | Body        | 5750            | 47.00                                  | 48.27  | -2.64     | 6.08                      | 5.94   | 2.44      |
|         |           |            |             | 5700            | 47.01                                  | 48.34  | -2.76     | 6.04                      | 5.88   | 2.70      |
|         |           |            |             | 5850            | 46.80                                  | 48.20  | -2.90     | 6.24                      | 6.00   | 4.02      |
| E       | 6/28/2019 | 5750       | Head        | 5750            | 35.93                                  | 35.36  | 1.60      | 5.09                      | 5.21   | -2.45     |
|         |           |            |             | 5700            | 35.92                                  | 35.42  | 1.41      | 5.06                      | 5.16   | -1.97     |
|         |           |            |             | 5850            | 35.78                                  | 35.30  | 1.36      | 5.21                      | 5.27   | -1.16     |
| E       | 6/29/2019 | 5250       | Head        | 5250            | 35.30                                  | 35.93  | -1.76     | 4.59                      | 4.70   | -2.30     |
|         |           |            |             | 5150            | 35.24                                  | 36.05  | -2.24     | 4.48                      | 4.60   | -2.54     |
|         |           |            |             | 5350            | 35.10                                  | 35.82  | -2.01     | 4.76                      | 4.80   | -0.86     |
| E       | 6/29/2019 | 5250       | Body        | 5250            | 49.45                                  | 48.95  | 1.02      | 5.34                      | 5.35   | -0.30     |
|         |           |            |             | 5150            | 49.25                                  | 49.09  | 0.33      | 5.22                      | 5.24   | -0.35     |
|         |           |            |             | 5350            | 49.36                                  | 48.82  | 1.11      | 5.55                      | 5.47   | 1.54      |
| E       | 7/2/2019  | 5750       | Head        | 5750            | 35.93                                  | 35.36  | 1.60      | 5.22                      | 5.21   | 0.14      |
|         |           |            |             | 5700            | 36.07                                  | 35.42  | 1.84      | 5.11                      | 5.16   | -0.96     |
|         |           |            |             | 5850            | 35.81                                  | 35.30  | 1.44      | 5.29                      | 5.27   | 0.32      |
| E       | 7/2/2019  | 5750       | Body        | 5750            | 46.62                                  | 48.27  | -3.43     | 6.16                      | 5.94   | 3.84      |
|         |           |            |             | 5700            | 46.84                                  | 48.34  | -3.11     | 5.90                      | 5.88   | 0.36      |
|         |           |            |             | 5850            | 46.36                                  | 48.20  | -3.82     | 6.16                      | 6.00   | 2.65      |
| E       | 7/6/2019  | 5750       | Head        | 5750            | 37.01                                  | 35.36  | 4.66      | 5.18                      | 5.21   | -0.74     |
|         |           |            |             | 5700            | 36.91                                  | 35.42  | 4.21      | 4.93                      | 5.16   | -4.58     |
|         |           |            |             | 5850            | 36.61                                  | 35.30  | 3.71      | 5.17                      | 5.27   | -1.92     |
| E       | 7/6/2019  | 5750       | Body        | 5750            | 46.96                                  | 48.27  | -2.72     | 6.15                      | 5.94   | 3.64      |
|         |           |            |             | 5700            | 46.78                                  | 48.34  | -3.23     | 5.83                      | 5.88   | -0.74     |
|         |           |            |             | 5850            | 46.41                                  | 48.20  | -3.71     | 6.18                      | 6.00   | 2.95      |
| E       | 7/9/2019  | 5750       | Head        | 5750            | 36.37                                  | 35.36  | 2.85      | 5.16                      | 5.21   | -1.09     |
|         |           |            |             | 5700            | 36.40                                  | 35.42  | 2.77      | 5.12                      | 5.16   | -0.92     |
|         |           |            |             | 5850            | 36.25                                  | 35.30  | 2.69      | 5.28                      | 5.27   | 0.09      |
| E       | 7/9/2019  | 5750       | Body        | 5750            | 47.56                                  | 48.27  | -1.48     | 5.97                      | 5.94   | 0.49      |
|         |           |            |             | 5700            | 47.60                                  | 48.34  | -1.54     | 5.92                      | 5.88   | 0.64      |
|         |           |            |             | 5850            | 47.42                                  | 48.20  | -1.62     | 6.12                      | 6.00   | 1.98      |
| E       | 7/10/2019 | 2450       | Body        | 2450            | 52.24                                  | 52.70  | -0.87     | 1.92                      | 1.95   | -1.44     |
|         |           |            |             | 2400            | 52.54                                  | 52.77  | -0.44     | 1.87                      | 1.90   | -1.58     |
|         |           |            |             | 2480            | 52.21                                  | 52.66  | -0.86     | 1.96                      | 1.99   | -1.41     |
| E       | 7/13/2019 | 2600       | Body        | 2600            | 52.96                                  | 52.51  | 0.86      | 2.23                      | 2.16   | 3.20      |
|         |           |            |             | 2495            | 53.26                                  | 52.64  | 1.17      | 2.07                      | 2.01   | 2.97      |
|         |           |            |             | 2690            | 52.46                                  | 52.40  | 0.12      | 2.36                      | 2.29   | 2.96      |
| E       | 7/30/2019 | 2600       | Body        | 2600            | 52.10                                  | 52.51  | -0.78     | 2.20                      | 2.16   | 1.77      |
|         |           |            |             | 2495            | 52.47                                  | 52.64  | -0.33     | 2.05                      | 2.01   | 1.73      |
|         |           |            |             | 2690            | 51.75                                  | 52.40  | -1.24     | 2.33                      | 2.29   | 1.74      |

**Dielectric Property Measurements Results (Continued):**

| SAR Lab | Date      | Band (MHz) | Tissue Type | Frequency (MHz) | Relative Permittivity ( $\epsilon_r$ ) |        |           | Conductivity ( $\sigma$ ) |        |           |
|---------|-----------|------------|-------------|-----------------|----------------------------------------|--------|-----------|---------------------------|--------|-----------|
|         |           |            |             |                 | Measured                               | Target | Delta (%) | Measured                  | Target | Delta (%) |
| F       | 6/17/2019 | 2450       | Body        | 2450            | 51.92                                  | 52.70  | -1.48     | 1.98                      | 1.95   | 1.59      |
|         |           |            |             | 2400            | 52.10                                  | 52.77  | -1.27     | 1.91                      | 1.90   | 0.79      |
|         |           |            |             | 2480            | 51.85                                  | 52.66  | -1.54     | 2.02                      | 1.99   | 1.30      |
| F       | 6/17/2019 | 2450       | Head        | 2450            | 39.82                                  | 39.20  | 1.58      | 1.88                      | 1.80   | 4.50      |
|         |           |            |             | 2400            | 40.01                                  | 39.30  | 1.82      | 1.82                      | 1.75   | 3.96      |
|         |           |            |             | 2480            | 39.74                                  | 39.16  | 1.48      | 1.91                      | 1.83   | 4.45      |
| F       | 6/20/2019 | 2450       | Head        | 2450            | 38.69                                  | 39.20  | -1.30     | 1.89                      | 1.80   | 4.83      |
|         |           |            |             | 2400            | 38.86                                  | 39.30  | -1.11     | 1.83                      | 1.75   | 4.53      |
|         |           |            |             | 2480            | 38.61                                  | 39.16  | -1.41     | 1.92                      | 1.83   | 4.78      |
| F       | 6/20/2019 | 2450       | Body        | 2450            | 51.15                                  | 52.70  | -2.94     | 2.03                      | 1.95   | 4.15      |
|         |           |            |             | 2400            | 51.31                                  | 52.77  | -2.77     | 1.97                      | 1.90   | 3.63      |
|         |           |            |             | 2480            | 51.06                                  | 52.66  | -3.04     | 2.07                      | 1.99   | 3.86      |
| F       | 6/24/2019 | 2450       | Head        | 2450            | 39.79                                  | 39.20  | 1.51      | 1.82                      | 1.80   | 1.00      |
|         |           |            |             | 2400            | 39.95                                  | 39.30  | 1.66      | 1.76                      | 1.75   | 0.59      |
|         |           |            |             | 2480            | 39.72                                  | 39.16  | 1.42      | 1.85                      | 1.83   | 0.90      |
| F       | 6/24/2019 | 2450       | Body        | 2450            | 51.27                                  | 52.70  | -2.71     | 2.01                      | 1.95   | 3.28      |
|         |           |            |             | 2400            | 51.44                                  | 52.77  | -2.53     | 1.95                      | 1.90   | 2.69      |
|         |           |            |             | 2480            | 51.20                                  | 52.66  | -2.78     | 2.05                      | 1.99   | 2.85      |
| F       | 6/28/2019 | 2450       | Body        | 2450            | 51.26                                  | 52.70  | -2.73     | 2.04                      | 1.95   | 4.77      |
|         |           |            |             | 2400            | 51.44                                  | 52.77  | -2.53     | 1.97                      | 1.90   | 3.74      |
|         |           |            |             | 2480            | 51.21                                  | 52.66  | -2.76     | 2.08                      | 1.99   | 4.31      |
| F       | 6/28/2019 | 2450       | Head        | 2450            | 38.67                                  | 39.20  | -1.35     | 1.87                      | 1.80   | 4.06      |
|         |           |            |             | 2400            | 38.88                                  | 39.30  | -1.06     | 1.81                      | 1.75   | 3.56      |
|         |           |            |             | 2480            | 38.61                                  | 39.16  | -1.41     | 1.91                      | 1.83   | 4.01      |
| F       | 7/1/2019  | 2450       | Head        | 2450            | 38.38                                  | 39.20  | -2.09     | 1.88                      | 1.80   | 4.56      |
|         |           |            |             | 2400            | 38.57                                  | 39.30  | -1.85     | 1.82                      | 1.75   | 4.07      |
|         |           |            |             | 2480            | 38.31                                  | 39.16  | -2.18     | 1.92                      | 1.83   | 4.51      |
| F       | 7/1/2019  | 2450       | Body        | 2450            | 52.27                                  | 52.70  | -0.82     | 1.99                      | 1.95   | 2.26      |
|         |           |            |             | 2400            | 52.45                                  | 52.77  | -0.61     | 1.93                      | 1.90   | 1.47      |
|         |           |            |             | 2480            | 52.21                                  | 52.66  | -0.86     | 2.03                      | 1.99   | 1.90      |
| F       | 7/5/2019  | 2450       | Body        | 2450            | 52.49                                  | 52.70  | -0.40     | 1.97                      | 1.95   | 0.92      |
|         |           |            |             | 2400            | 52.67                                  | 52.77  | -0.19     | 1.91                      | 1.90   | 0.42      |
|         |           |            |             | 2480            | 52.37                                  | 52.66  | -0.55     | 2.00                      | 1.99   | 0.59      |
| F       | 7/5/2019  | 2450       | Head        | 2450            | 38.35                                  | 39.20  | -2.17     | 1.89                      | 1.80   | 4.72      |
|         |           |            |             | 2400            | 38.52                                  | 39.30  | -1.98     | 1.83                      | 1.75   | 4.47      |
|         |           |            |             | 2480            | 38.23                                  | 39.16  | -2.38     | 1.92                      | 1.83   | 4.62      |
| F       | 7/9/2019  | 2450       | Head        | 2450            | 40.85                                  | 39.20  | 4.21      | 1.89                      | 1.80   | 4.78      |
|         |           |            |             | 2400            | 41.05                                  | 39.30  | 4.46      | 1.82                      | 1.75   | 4.07      |
|         |           |            |             | 2480            | 40.79                                  | 39.16  | 4.16      | 1.92                      | 1.83   | 4.78      |
| F       | 7/9/2019  | 2450       | Body        | 2450            | 51.46                                  | 52.70  | -2.35     | 2.05                      | 1.95   | 4.97      |
|         |           |            |             | 2400            | 51.67                                  | 52.77  | -2.09     | 1.97                      | 1.90   | 3.74      |
|         |           |            |             | 2480            | 51.41                                  | 52.66  | -2.38     | 2.08                      | 1.99   | 4.61      |
| F       | 7/13/2019 | 2450       | Body        | 2450            | 52.83                                  | 52.70  | 0.25      | 2.02                      | 1.95   | 3.44      |
|         |           |            |             | 2400            | 52.83                                  | 52.77  | 0.11      | 1.93                      | 1.90   | 1.74      |
|         |           |            |             | 2480            | 52.71                                  | 52.66  | 0.09      | 2.05                      | 1.99   | 2.65      |

**Dielectric Property Measurements Results (Continued):**

| SAR Lab | Date      | Band (MHz) | Tissue Type | Frequency (MHz) | Relative Permittivity ( $\epsilon_r$ ) |        |           | Conductivity ( $\sigma$ ) |        |           |
|---------|-----------|------------|-------------|-----------------|----------------------------------------|--------|-----------|---------------------------|--------|-----------|
|         |           |            |             |                 | Measured                               | Target | Delta (%) | Measured                  | Target | Delta (%) |
| F       | 7/13/2019 | 2450       | Head        | 2450            | 40.04                                  | 39.20  | 2.14      | 1.84                      | 1.80   | 2.33      |
|         |           |            |             | 2400            | 40.07                                  | 39.30  | 1.97      | 1.77                      | 1.75   | 1.05      |
|         |           |            |             | 2480            | 39.96                                  | 39.16  | 2.04      | 1.87                      | 1.83   | 1.89      |
| F       | 7/30/2019 | 2600       | Body        | 2600            | 51.68                                  | 52.51  | -1.58     | 2.17                      | 2.16   | 0.52      |
|         |           |            |             | 2495            | 52.04                                  | 52.64  | -1.15     | 2.02                      | 2.01   | 0.53      |
|         |           |            |             | 2690            | 51.34                                  | 52.40  | -2.02     | 2.30                      | 2.29   | 0.34      |
| F       | 8/9/2019  | 3500       | Head        | 3500            | 37.66                                  | 37.93  | -0.71     | 2.79                      | 2.91   | -4.18     |
|         |           |            |             | 3600            | 37.48                                  | 37.82  | -0.89     | 2.88                      | 3.01   | -4.31     |
|         |           |            |             | 3700            | 37.28                                  | 37.70  | -1.12     | 2.97                      | 3.12   | -4.63     |
| F       | 8/9/2019  | 3500       | Body        | 3500            | 50.58                                  | 51.32  | -1.45     | 3.15                      | 3.31   | -4.86     |
|         |           |            |             | 3600            | 50.30                                  | 51.19  | -1.73     | 3.28                      | 3.43   | -4.33     |
|         |           |            |             | 3700            | 50.00                                  | 51.05  | -2.06     | 3.41                      | 3.55   | -3.92     |
| G       | 6/17/2019 | 5250       | Head        | 5250            | 36.68                                  | 35.93  | 2.08      | 4.68                      | 4.70   | -0.51     |
|         |           |            |             | 5150            | 36.84                                  | 36.05  | 2.20      | 4.58                      | 4.60   | -0.39     |
|         |           |            |             | 5350            | 36.52                                  | 35.82  | 1.96      | 4.80                      | 4.80   | -0.09     |
| G       | 6/17/2019 | 5250       | Body        | 5250            | 48.11                                  | 48.95  | -1.72     | 5.34                      | 5.35   | -0.32     |
|         |           |            |             | 5150            | 48.30                                  | 49.09  | -1.60     | 5.20                      | 5.24   | -0.68     |
|         |           |            |             | 5350            | 47.94                                  | 48.82  | -1.80     | 5.48                      | 5.47   | 0.23      |
| G       | 6/20/2019 | 5250       | Head        | 5250            | 36.25                                  | 35.93  | 0.88      | 4.52                      | 4.70   | -3.83     |
|         |           |            |             | 5150            | 36.42                                  | 36.05  | 1.03      | 4.43                      | 4.60   | -3.80     |
|         |           |            |             | 5350            | 36.11                                  | 35.82  | 0.81      | 4.62                      | 4.80   | -3.80     |
| G       | 6/20/2019 | 5250       | Body        | 5250            | 46.97                                  | 48.95  | -4.05     | 5.22                      | 5.35   | -2.56     |
|         |           |            |             | 5150            | 47.16                                  | 49.09  | -3.93     | 5.09                      | 5.24   | -2.74     |
|         |           |            |             | 5350            | 46.80                                  | 48.82  | -4.13     | 5.34                      | 5.47   | -2.35     |
| G       | 6/24/2019 | 5250       | Head        | 5250            | 36.04                                  | 35.93  | 0.30      | 4.65                      | 4.70   | -1.22     |
|         |           |            |             | 5150            | 36.20                                  | 36.05  | 0.42      | 4.54                      | 4.60   | -1.28     |
|         |           |            |             | 5350            | 35.88                                  | 35.82  | 0.17      | 4.75                      | 4.80   | -1.05     |
| G       | 6/24/2019 | 5250       | Body        | 5250            | 47.31                                  | 48.95  | -3.35     | 5.39                      | 5.35   | 0.69      |
|         |           |            |             | 5150            | 47.51                                  | 49.09  | -3.21     | 5.25                      | 5.24   | 0.32      |
|         |           |            |             | 5350            | 47.11                                  | 48.82  | -3.50     | 5.53                      | 5.47   | 1.14      |
| G       | 6/26/2019 | 2600       | Body        | 2600            | 51.06                                  | 52.51  | -2.76     | 2.17                      | 2.16   | 0.52      |
|         |           |            |             | 2495            | 51.39                                  | 52.64  | -2.38     | 2.02                      | 2.01   | 0.29      |
|         |           |            |             | 2690            | 50.70                                  | 52.40  | -3.24     | 2.30                      | 2.29   | 0.51      |
| G       | 7/1/2019  | 2600       | Body        | 2600            | 51.11                                  | 52.51  | -2.67     | 2.24                      | 2.16   | 3.85      |
|         |           |            |             | 2495            | 51.55                                  | 52.64  | -2.08     | 2.07                      | 2.01   | 2.67      |
|         |           |            |             | 2690            | 50.81                                  | 52.40  | -3.03     | 2.37                      | 2.29   | 3.79      |
| G       | 7/1/2019  | 5250       | Head        | 5250            | 35.65                                  | 35.93  | -0.79     | 4.56                      | 4.70   | -3.00     |
|         |           |            |             | 5150            | 35.80                                  | 36.05  | -0.69     | 4.46                      | 4.60   | -3.00     |
|         |           |            |             | 5350            | 35.48                                  | 35.82  | -0.95     | 4.67                      | 4.80   | -2.76     |
| G       | 7/1/2019  | 5250       | Body        | 5250            | 49.71                                  | 48.95  | 1.55      | 5.39                      | 5.35   | 0.77      |
|         |           |            |             | 5150            | 49.90                                  | 49.09  | 1.66      | 5.26                      | 5.24   | 0.49      |
|         |           |            |             | 5350            | 49.52                                  | 48.82  | 1.44      | 5.55                      | 5.47   | 1.53      |

**Dielectric Property Measurements Results (Continued):**

| SAR Lab | Date      | Band (MHz) | Tissue Type | Frequency (MHz) | Relative Permittivity ( $\epsilon_r$ ) |        |           | Conductivity ( $\sigma$ ) |        |           |
|---------|-----------|------------|-------------|-----------------|----------------------------------------|--------|-----------|---------------------------|--------|-----------|
|         |           |            |             |                 | Measured                               | Target | Delta (%) | Measured                  | Target | Delta (%) |
| G       | 7/3/2019  | 1900       | Body        | 1900            | 51.43                                  | 53.30  | -3.51     | 1.54                      | 1.52   | 1.32      |
|         |           |            |             | 1850            | 51.66                                  | 53.30  | -3.08     | 1.48                      | 1.52   | -2.37     |
|         |           |            |             | 1920            | 51.34                                  | 53.30  | -3.68     | 1.56                      | 1.52   | 2.89      |
| G       | 7/5/2019  | 5250       | Head        | 5250            | 35.68                                  | 35.93  | -0.70     | 4.88                      | 4.70   | 3.74      |
|         |           |            |             | 5150            | 35.71                                  | 36.05  | -0.94     | 4.68                      | 4.60   | 1.70      |
|         |           |            |             | 5350            | 35.26                                  | 35.82  | -1.56     | 5.00                      | 4.80   | 4.03      |
| G       | 7/5/2019  | 5250       | Body        | 5250            | 48.92                                  | 48.95  | -0.07     | 5.30                      | 5.35   | -1.01     |
|         |           |            |             | 5150            | 48.83                                  | 49.09  | -0.52     | 5.05                      | 5.24   | -3.50     |
|         |           |            |             | 5350            | 48.46                                  | 48.82  | -0.73     | 5.46                      | 5.47   | -0.16     |
| G       | 7/9/2019  | 5250       | Head        | 5250            | 36.57                                  | 35.93  | 1.77      | 4.67                      | 4.70   | -0.64     |
|         |           |            |             | 5150            | 36.70                                  | 36.05  | 1.81      | 4.58                      | 4.60   | -0.50     |
|         |           |            |             | 5350            | 36.41                                  | 35.82  | 1.65      | 4.80                      | 4.80   | -0.16     |
| G       | 7/9/2019  | 5250       | Body        | 5250            | 47.06                                  | 48.95  | -3.86     | 5.33                      | 5.35   | -0.47     |
|         |           |            |             | 5150            | 47.19                                  | 49.09  | -3.87     | 5.22                      | 5.24   | -0.39     |
|         |           |            |             | 5350            | 46.89                                  | 48.82  | -3.95     | 5.49                      | 5.47   | 0.28      |
| G       | 7/11/2019 | 2450       | Body        | 2450            | 51.16                                  | 52.70  | -2.92     | 1.98                      | 1.95   | 1.38      |
|         |           |            |             | 2400            | 51.38                                  | 52.77  | -2.64     | 1.91                      | 1.90   | 0.63      |
|         |           |            |             | 2480            | 51.10                                  | 52.66  | -2.97     | 2.02                      | 1.99   | 1.15      |
| G       | 7/15/2019 | 5600       | Body        | 5600            | 47.92                                  | 48.48  | -1.15     | 5.94                      | 5.76   | 3.04      |
|         |           |            |             | 5500            | 48.33                                  | 48.61  | -0.58     | 5.81                      | 5.64   | 3.00      |
|         |           |            |             | 5725            | 47.66                                  | 48.31  | -1.34     | 6.14                      | 5.91   | 3.97      |
| H       | 6/16/2019 | 5600       | Body        | 5600            | 48.38                                  | 48.48  | -0.20     | 5.55                      | 5.76   | -3.71     |
|         |           |            |             | 5500            | 48.55                                  | 48.61  | -0.13     | 5.41                      | 5.64   | -4.17     |
|         |           |            |             | 5725            | 48.17                                  | 48.31  | -0.29     | 5.73                      | 5.91   | -3.01     |
| H       | 6/17/2019 | 5600       | Head        | 5600            | 34.73                                  | 35.53  | -2.26     | 4.91                      | 5.06   | -2.93     |
|         |           |            |             | 5500            | 34.91                                  | 35.65  | -2.07     | 4.80                      | 4.96   | -3.27     |
|         |           |            |             | 5725            | 34.51                                  | 35.39  | -2.49     | 5.07                      | 5.19   | -2.34     |
| H       | 6/20/2019 | 5600       | Head        | 5600            | 36.11                                  | 35.53  | 1.62      | 4.84                      | 5.06   | -4.45     |
|         |           |            |             | 5500            | 36.25                                  | 35.65  | 1.69      | 4.72                      | 4.96   | -4.78     |
|         |           |            |             | 5725            | 35.91                                  | 35.39  | 1.47      | 4.97                      | 5.19   | -4.15     |
| H       | 6/20/2019 | 5600       | Body        | 5600            | 46.87                                  | 48.48  | -3.32     | 5.71                      | 5.76   | -0.87     |
|         |           |            |             | 5500            | 47.00                                  | 48.61  | -3.32     | 5.57                      | 5.64   | -1.39     |
|         |           |            |             | 5725            | 46.65                                  | 48.31  | -3.43     | 5.88                      | 5.91   | -0.50     |
| H       | 6/24/2019 | 5600       | Head        | 5600            | 34.85                                  | 35.53  | -1.92     | 4.96                      | 5.06   | -2.00     |
|         |           |            |             | 5500            | 35.03                                  | 35.65  | -1.73     | 4.84                      | 4.96   | -2.40     |
|         |           |            |             | 5725            | 34.63                                  | 35.39  | -2.15     | 5.12                      | 5.19   | -1.37     |
| H       | 6/24/2019 | 5600       | Body        | 5600            | 49.34                                  | 48.48  | 1.78      | 5.56                      | 5.76   | -3.51     |
|         |           |            |             | 5500            | 49.48                                  | 48.61  | 1.78      | 5.41                      | 5.64   | -4.08     |
|         |           |            |             | 5725            | 49.15                                  | 48.31  | 1.74      | 5.74                      | 5.91   | -2.84     |

**Dielectric Property Measurements Results (Continued):**

| SAR Lab | Date      | Band (MHz) | Tissue Type | Frequency (MHz) | Relative Permittivity ( $\epsilon_r$ ) |        |           | Conductivity ( $\sigma$ ) |        |           |
|---------|-----------|------------|-------------|-----------------|----------------------------------------|--------|-----------|---------------------------|--------|-----------|
|         |           |            |             |                 | Measured                               | Target | Delta (%) | Measured                  | Target | Delta (%) |
| H       | 6/25/2019 | 2450       | Head        | 2450            | 37.31                                  | 39.20  | -4.82     | 1.75                      | 1.80   | -2.56     |
|         |           |            |             | 2400            | 37.39                                  | 39.30  | -4.85     | 1.72                      | 1.75   | -2.09     |
|         |           |            |             | 2480            | 37.32                                  | 39.16  | -4.70     | 1.78                      | 1.83   | -3.03     |
| H       | 6/28/2019 | 5600       | Body        | 5600            | 46.64                                  | 48.48  | -3.79     | 5.48                      | 5.76   | -4.88     |
|         |           |            |             | 5500            | 47.02                                  | 48.61  | -3.28     | 5.39                      | 5.64   | -4.47     |
|         |           |            |             | 5725            | 46.38                                  | 48.31  | -3.99     | 5.63                      | 5.91   | -4.65     |
| H       | 6/28/2019 | 5600       | Head        | 5600            | 33.94                                  | 35.53  | -4.49     | 4.88                      | 5.06   | -3.60     |
|         |           |            |             | 5500            | 34.23                                  | 35.65  | -3.98     | 4.81                      | 4.96   | -3.08     |
|         |           |            |             | 5725            | 33.66                                  | 35.39  | -4.89     | 5.02                      | 5.19   | -3.32     |
| H       | 6/29/2019 | 5250       | Body        | 5250            | 51.23                                  | 48.95  | 4.65      | 5.10                      | 5.35   | -4.80     |
|         |           |            |             | 5150            | 51.43                                  | 49.09  | 4.77      | 4.99                      | 5.24   | -4.72     |
|         |           |            |             | 5350            | 51.09                                  | 48.82  | 4.66      | 5.24                      | 5.47   | -4.16     |
| H       | 6/30/2019 | 1900       | Head        | 1900            | 39.12                                  | 40.00  | -2.20     | 1.42                      | 1.40   | 1.50      |
|         |           |            |             | 1850            | 39.27                                  | 40.00  | -1.82     | 1.40                      | 1.40   | -0.14     |
|         |           |            |             | 1920            | 39.11                                  | 40.00  | -2.23     | 1.44                      | 1.40   | 2.57      |
| H       | 7/5/2019  | 5600       | Head        | 5600            | 34.53                                  | 35.53  | -2.83     | 4.81                      | 5.06   | -4.97     |
|         |           |            |             | 5500            | 34.97                                  | 35.65  | -1.90     | 4.75                      | 4.96   | -4.29     |
|         |           |            |             | 5725            | 34.25                                  | 35.39  | -3.22     | 4.97                      | 5.19   | -4.28     |
| H       | 7/5/2019  | 5600       | Body        | 5600            | 47.16                                  | 48.48  | -2.72     | 5.95                      | 5.76   | 3.32      |
|         |           |            |             | 5500            | 47.77                                  | 48.61  | -1.73     | 5.84                      | 5.64   | 3.48      |
|         |           |            |             | 5725            | 46.77                                  | 48.31  | -3.18     | 6.16                      | 5.91   | 4.24      |
| H       | 7/9/2019  | 5600       | Head        | 5600            | 36.58                                  | 35.53  | 2.94      | 5.06                      | 5.06   | 0.00      |
|         |           |            |             | 5500            | 36.76                                  | 35.65  | 3.12      | 4.95                      | 4.96   | -0.22     |
|         |           |            |             | 5725            | 36.36                                  | 35.39  | 2.74      | 5.22                      | 5.19   | 0.52      |
| H       | 7/9/2019  | 5600       | Body        | 5600            | 49.53                                  | 48.48  | 2.17      | 5.60                      | 5.76   | -2.83     |
|         |           |            |             | 5500            | 49.69                                  | 48.61  | 2.22      | 5.51                      | 5.64   | -2.31     |
|         |           |            |             | 5725            | 49.35                                  | 48.31  | 2.16      | 5.77                      | 5.91   | -2.38     |
| 6       | 7/2/2019  | 3500       | Head        | 3500            | 39.20                                  | 37.93  | 3.35      | 2.79                      | 2.91   | -4.11     |
|         |           |            |             | 3600            | 39.02                                  | 37.82  | 3.19      | 2.89                      | 3.01   | -4.24     |
|         |           |            |             | 3700            | 38.83                                  | 37.70  | 2.99      | 2.98                      | 3.12   | -4.34     |
| 6       | 7/2/2019  | 3500       | Body        | 3500            | 50.98                                  | 51.32  | -0.67     | 3.40                      | 3.31   | 2.69      |
|         |           |            |             | 3600            | 50.72                                  | 51.19  | -0.91     | 3.54                      | 3.43   | 3.14      |
|         |           |            |             | 3700            | 50.47                                  | 51.05  | -1.14     | 3.67                      | 3.55   | 3.41      |
| 6       | 7/6/2019  | 3500       | Head        | 3500            | 39.35                                  | 37.93  | 3.74      | 2.81                      | 2.91   | -3.49     |
|         |           |            |             | 3600            | 39.15                                  | 37.82  | 3.53      | 2.90                      | 3.01   | -3.75     |
|         |           |            |             | 3700            | 38.83                                  | 37.70  | 2.99      | 2.98                      | 3.12   | -4.34     |
| 6       | 7/6/2019  | 3500       | Body        | 3500            | 52.40                                  | 51.32  | 2.10      | 3.35                      | 3.31   | 1.15      |
|         |           |            |             | 3600            | 52.12                                  | 51.19  | 1.82      | 3.48                      | 3.43   | 1.59      |
|         |           |            |             | 3700            | 51.83                                  | 51.05  | 1.52      | 3.63                      | 3.55   | 2.25      |

**Dielectric Property Measurements Results (Continued):**

| SAR Lab | Date      | Band (MHz) | Tissue Type | Frequency (MHz) | Relative Permittivity ( $\epsilon_r$ ) |        |           | Conductivity ( $\sigma$ ) |        |           |
|---------|-----------|------------|-------------|-----------------|----------------------------------------|--------|-----------|---------------------------|--------|-----------|
|         |           |            |             |                 | Measured                               | Target | Delta (%) | Measured                  | Target | Delta (%) |
| 6       | 7/10/2019 | 3500       | Head        | 3500            | 38.05                                  | 37.93  | 0.32      | 2.83                      | 2.91   | -2.80     |
|         |           |            |             | 3600            | 37.85                                  | 37.82  | 0.09      | 2.93                      | 3.01   | -2.95     |
|         |           |            |             | 3700            | 37.67                                  | 37.70  | -0.08     | 3.02                      | 3.12   | -3.06     |
| 6       | 7/10/2019 | 3500       | Body        | 3500            | 52.32                                  | 51.32  | 1.94      | 3.41                      | 3.31   | 3.05      |
|         |           |            |             | 3600            | 52.12                                  | 51.19  | 1.82      | 3.50                      | 3.43   | 2.09      |
|         |           |            |             | 3700            | 51.74                                  | 51.05  | 1.35      | 3.62                      | 3.55   | 1.97      |
| 6       | 7/14/2019 | 3500       | Head        | 3500            | 39.00                                  | 37.93  | 2.82      | 2.78                      | 2.91   | -4.49     |
|         |           |            |             | 3600            | 38.84                                  | 37.82  | 2.71      | 2.87                      | 3.01   | -4.64     |
|         |           |            |             | 3700            | 38.68                                  | 37.70  | 2.60      | 2.97                      | 3.12   | -4.72     |
| 6       | 7/14/2019 | 3500       | Body        | 3500            | 51.19                                  | 51.32  | -0.26     | 3.45                      | 3.31   | 3.99      |
|         |           |            |             | 3600            | 50.93                                  | 51.19  | -0.50     | 3.58                      | 3.43   | 4.36      |
|         |           |            |             | 3700            | 50.66                                  | 51.05  | -0.77     | 3.72                      | 3.55   | 4.79      |
| 7       | 6/14/2019 | 835        | Head        | 835             | 40.58                                  | 41.50  | -2.22     | 0.93                      | 0.90   | 3.86      |
|         |           |            |             | 805             | 40.66                                  | 41.68  | -2.45     | 0.93                      | 0.90   | 3.09      |
|         |           |            |             | 850             | 40.51                                  | 41.50  | -2.39     | 0.94                      | 0.92   | 2.51      |
| 7       | 6/14/2019 | 835        | Body        | 835             | 52.75                                  | 55.20  | -4.44     | 1.02                      | 0.97   | 4.95      |
|         |           |            |             | 805             | 52.79                                  | 55.33  | -4.60     | 1.01                      | 0.97   | 4.21      |
|         |           |            |             | 850             | 52.70                                  | 55.16  | -4.45     | 1.02                      | 0.99   | 3.53      |
| 7       | 6/18/2019 | 835        | Body        | 835             | 54.21                                  | 55.20  | -1.79     | 1.05                      | 0.97   | 8.04      |
|         |           |            |             | 805             | 54.17                                  | 55.33  | -2.10     | 1.03                      | 0.97   | 6.17      |
|         |           |            |             | 850             | 54.19                                  | 55.16  | -1.75     | 1.05                      | 0.99   | 6.77      |
| 7       | 6/19/2019 | 835        | Head        | 835             | 39.80                                  | 41.50  | -4.10     | 0.94                      | 0.90   | 4.28      |
|         |           |            |             | 805             | 39.82                                  | 41.68  | -4.46     | 0.93                      | 0.90   | 3.43      |
|         |           |            |             | 850             | 39.75                                  | 41.50  | -4.22     | 0.94                      | 0.92   | 2.94      |
| 7       | 6/21/2019 | 2600       | Head        | 2600            | 40.42                                  | 39.01  | 3.61      | 1.89                      | 1.96   | -3.58     |
|         |           |            |             | 2495            | 40.54                                  | 39.14  | 3.57      | 1.78                      | 1.85   | -3.50     |
|         |           |            |             | 2690            | 40.26                                  | 38.90  | 3.50      | 1.96                      | 2.06   | -4.98     |
| 7       | 6/25/2019 | 835        | Head        | 835             | 39.48                                  | 41.50  | -4.87     | 0.94                      | 0.90   | 4.48      |
|         |           |            |             | 805             | 39.60                                  | 41.68  | -4.99     | 0.94                      | 0.90   | 4.20      |
|         |           |            |             | 850             | 39.43                                  | 41.50  | -4.99     | 0.95                      | 0.92   | 3.37      |
| 7       | 6/25/2019 | 835        | Body        | 835             | 53.78                                  | 55.20  | -2.57     | 1.01                      | 0.97   | 4.54      |
|         |           |            |             | 805             | 53.87                                  | 55.33  | -2.65     | 1.01                      | 0.97   | 4.10      |
|         |           |            |             | 850             | 53.74                                  | 55.16  | -2.57     | 1.02                      | 0.99   | 3.33      |
| 7       | 6/27/2019 | 2600       | Body        | 2600            | 52.91                                  | 52.51  | 0.76      | 2.08                      | 2.16   | -3.74     |
|         |           |            |             | 2495            | 53.02                                  | 52.64  | 0.72      | 1.93                      | 2.01   | -4.09     |
|         |           |            |             | 2690            | 52.76                                  | 52.40  | 0.69      | 2.20                      | 2.29   | -3.95     |
| 7       | 7/23/2019 | 835        | Body        | 835             | 55.39                                  | 55.20  | 0.34      | 1.01                      | 0.97   | 4.02      |
|         |           |            |             | 805             | 55.46                                  | 55.33  | 0.23      | 1.00                      | 0.97   | 2.96      |
|         |           |            |             | 850             | 55.36                                  | 55.16  | 0.37      | 1.01                      | 0.99   | 2.72      |
| 7       | 7/26/2019 | 835        | Head        | 835             | 43.47                                  | 41.50  | 4.75      | 0.94                      | 0.90   | 4.77      |
|         |           |            |             | 805             | 43.48                                  | 41.68  | 4.32      | 0.93                      | 0.90   | 3.99      |
|         |           |            |             | 850             | 43.46                                  | 41.50  | 4.72      | 0.95                      | 0.92   | 3.58      |
| 7       | 7/29/2019 | 835        | Body        | 835             | 53.21                                  | 55.20  | -3.61     | 0.98                      | 0.97   | 1.44      |
|         |           |            |             | 805             | 53.22                                  | 55.33  | -3.82     | 0.97                      | 0.97   | 0.23      |
|         |           |            |             | 850             | 53.16                                  | 55.16  | -3.62     | 0.99                      | 0.99   | 0.31      |

**Dielectric Property Measurements Results (Continued):**

| SAR Lab | Date      | Band (MHz) | Tissue Type | Frequency (MHz) | Relative Permittivity ( $\epsilon_r$ ) |        |           | Conductivity ( $\sigma$ ) |        |           |
|---------|-----------|------------|-------------|-----------------|----------------------------------------|--------|-----------|---------------------------|--------|-----------|
|         |           |            |             |                 | Measured                               | Target | Delta (%) | Measured                  | Target | Delta (%) |
| 9       | 6/16/2019 | 835        | Head        | 835             | 41.56                                  | 41.50  | 0.14      | 0.94                      | 0.90   | 3.93      |
|         |           |            |             | 805             | 41.59                                  | 41.68  | -0.21     | 0.92                      | 0.90   | 3.04      |
|         |           |            |             | 850             | 41.53                                  | 41.50  | 0.07      | 0.94                      | 0.92   | 2.72      |
| 9       | 6/24/2019 | 3500       | Head        | 3500            | 37.97                                  | 37.93  | 0.11      | 2.90                      | 2.91   | -0.54     |
|         |           |            |             | 3600            | 37.86                                  | 37.82  | 0.12      | 2.97                      | 3.01   | -1.56     |
|         |           |            |             | 3700            | 37.54                                  | 37.70  | -0.43     | 3.06                      | 3.12   | -1.77     |
| 9       | 6/24/2019 | 3500       | Body        | 3500            | 52.55                                  | 51.32  | 2.39      | 3.15                      | 3.31   | -4.80     |
|         |           |            |             | 3600            | 52.30                                  | 51.19  | 2.17      | 3.29                      | 3.43   | -4.10     |
|         |           |            |             | 3700            | 52.06                                  | 51.05  | 1.98      | 3.43                      | 3.55   | -3.41     |
| 9       | 6/28/2019 | 750        | Head        | 750             | 42.67                                  | 41.96  | 1.69      | 0.92                      | 0.89   | 3.42      |
|         |           |            |             | 660             | 43.01                                  | 42.42  | 1.38      | 0.88                      | 0.89   | -0.78     |
|         |           |            |             | 800             | 42.53                                  | 41.71  | 1.98      | 0.95                      | 0.90   | 5.58      |
| 9       | 6/28/2019 | 750        | Body        | 750             | 53.55                                  | 55.55  | -3.59     | 0.96                      | 0.96   | -0.31     |
|         |           |            |             | 660             | 55.39                                  | 55.89  | -0.90     | 0.90                      | 0.96   | -6.13     |
|         |           |            |             | 800             | 53.25                                  | 55.35  | -3.80     | 1.01                      | 0.97   | 4.46      |
| 9       | 6/28/2019 | 2600       | Head        | 2600            | 40.07                                  | 39.01  | 2.72      | 1.96                      | 1.96   | -0.31     |
|         |           |            |             | 2495            | 40.60                                  | 39.14  | 3.72      | 1.76                      | 1.85   | -4.74     |
|         |           |            |             | 2690            | 39.41                                  | 38.90  | 1.32      | 2.07                      | 2.06   | 0.61      |
| 9       | 7/2/2019  | 750        | Head        | 750             | 42.00                                  | 41.96  | 0.09      | 0.92                      | 0.89   | 2.72      |
|         |           |            |             | 660             | 42.22                                  | 42.42  | -0.48     | 0.89                      | 0.89   | 0.33      |
|         |           |            |             | 800             | 41.67                                  | 41.71  | -0.08     | 0.93                      | 0.90   | 4.07      |
| 9       | 7/2/2019  | 750        | Body        | 750             | 53.72                                  | 55.55  | -3.29     | 0.99                      | 0.96   | 2.43      |
|         |           |            |             | 660             | 54.60                                  | 55.89  | -2.31     | 0.90                      | 0.96   | -6.32     |
|         |           |            |             | 800             | 53.21                                  | 55.35  | -3.87     | 1.04                      | 0.97   | 7.35      |
| 9       | 7/3/2019  | 750        | Body        | 750             | 56.70                                  | 55.55  | 2.08      | 0.94                      | 0.96   | -1.90     |
|         |           |            |             | 660             | 57.70                                  | 55.89  | 3.23      | 0.87                      | 0.96   | -9.38     |
|         |           |            |             | 800             | 56.33                                  | 55.35  | 1.76      | 0.99                      | 0.97   | 1.87      |
| 9       | 7/4/2019  | 750        | Body        | 750             | 58.97                                  | 55.55  | 6.16      | 0.95                      | 0.96   | -1.37     |
|         |           |            |             | 660             | 58.59                                  | 55.89  | 4.83      | 0.88                      | 0.96   | -8.44     |
|         |           |            |             | 800             | 57.79                                  | 55.35  | 4.40      | 0.98                      | 0.97   | 1.50      |
| 9       | 7/5/2019  | 750        | Body        | 750             | 53.63                                  | 55.55  | -3.45     | 0.97                      | 0.96   | 0.76      |
|         |           |            |             | 660             | 54.74                                  | 55.89  | -2.06     | 0.89                      | 0.96   | -6.72     |
|         |           |            |             | 800             | 53.15                                  | 55.35  | -3.98     | 1.01                      | 0.97   | 4.77      |

**Dielectric Property Measurements Results (Continued):**

| SAR Lab | Date     | Band (MHz) | Tissue Type | Frequency (MHz) | Relative Permittivity ( $\epsilon_r$ ) |        |           | Conductivity ( $\sigma$ ) |        |           |
|---------|----------|------------|-------------|-----------------|----------------------------------------|--------|-----------|---------------------------|--------|-----------|
|         |          |            |             |                 | Measured                               | Target | Delta (%) | Measured                  | Target | Delta (%) |
| 9       | 7/5/2019 | 835        | Body        | 835             | 52.89                                  | 55.20  | -4.18     | 0.99                      | 0.97   | 2.44      |
|         |          |            |             | 805             | 53.11                                  | 55.33  | -4.02     | 0.99                      | 0.97   | 2.14      |
|         |          |            |             | 850             | 52.82                                  | 55.16  | -4.24     | 0.99                      | 0.99   | 0.78      |
| 9       | 7/5/2019 | 835        | Head        | 835             | 40.02                                  | 41.50  | -3.57     | 0.90                      | 0.90   | -0.10     |
|         |          |            |             | 805             | 40.28                                  | 41.68  | -3.36     | 0.89                      | 0.90   | -0.46     |
|         |          |            |             | 850             | 39.94                                  | 41.50  | -3.76     | 0.90                      | 0.92   | -1.62     |
| 9       | 7/6/2019 | 750        | Body        | 750             | 53.45                                  | 55.55  | -3.77     | 0.96                      | 0.96   | -0.37     |
|         |          |            |             | 660             | 54.36                                  | 55.89  | -2.74     | 0.87                      | 0.96   | -8.69     |
|         |          |            |             | 800             | 52.83                                  | 55.35  | -4.56     | 1.00                      | 0.97   | 3.83      |
| 9       | 7/6/2019 | 750        | Head        | 750             | 40.79                                  | 41.96  | -2.79     | 0.90                      | 0.89   | 0.63      |
|         |          |            |             | 660             | 40.71                                  | 42.42  | -4.04     | 0.87                      | 0.89   | -1.96     |
|         |          |            |             | 800             | 40.43                                  | 41.71  | -3.06     | 0.91                      | 0.90   | 1.60      |

## 8.2. System Check

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. The same SAR probe(s) and tissue-equivalent media combinations used with each specific SAR system for system verification must be used for device testing. When multiple probe calibration points are required to cover substantially large transmission bands, independent system verifications are required for each probe calibration point. A system verification must be performed before each series of SAR measurements using the same probe calibration point and tissue-equivalent medium. Additional system verification should be considered according to the conditions of the tissue-equivalent medium and measured tissue dielectric parameters, typically every three to four days when the liquid parameters are re-measured or sooner when marginal liquid parameters are used at the beginning of a series of measurements.

### System Performance Check Measurement Conditions:

- The measurements were performed in the flat section of the TWIN SAM or ELI phantom, shell thickness: 2.0  $\pm$  0.2 mm (bottom plate) filled with Body or Head simulating liquid of the following parameters.
- The depth of tissue-equivalent liquid in a phantom must be  $\geq$  15.0 cm for SAR measurements  $\leq$  3 GHz and  $\geq$  10.0 cm for measurements  $>$  3 GHz.
- The DASY system with an E-Field Probe was used for the measurements.
- The dipole was mounted on the small tripod so that the dipole feed point was positioned below the center marking of the flat phantom section and the dipole was oriented parallel to the body axis (the long side of the phantom). The standard measuring distance was 10 mm (above 1 GHz) and 15 mm (below 1 GHz) from dipole center to the simulating liquid surface.
- The coarse grid with a grid spacing of 15 mm was aligned with the dipole.  
For 5 GHz band - The coarse grid with a grid spacing of 10 mm was aligned with the dipole.
- Special 7x7x7 (below 3 GHz) and/or 8x8x7 (above 3 GHz) fine cube was chosen for the cube.
- Distance between probe sensors and phantom surface was set to 3 mm.  
For 5 GHz band - Distance between probe sensors and phantom surface was set to 2.5 mm
- The dipole input power (forward power) was 100 mW.
- The results are normalized to 1 W input power.

## System Check Results

The 1-g and 10-g SAR measured with a reference dipole, using the required tissue-equivalent medium at the test frequency, must be within  $\pm 10\%$  of the manufacturer calibrated dipole SAR target. Refer to Appendix B for the SAR System Check Plots.

| SAR Lab | Date      | Tissue Type | Dipole Type<br>Serial # | Dipole<br>Cal. Due Data | Measured Results for 1g SAR |                     |                        |                     | Measured Results for 10g SAR |                     |                        |                     | Plot No. |
|---------|-----------|-------------|-------------------------|-------------------------|-----------------------------|---------------------|------------------------|---------------------|------------------------------|---------------------|------------------------|---------------------|----------|
|         |           |             |                         |                         | Zoom Scan<br>to 100 mW      | Normalize<br>to 1 W | Target<br>(Ref. Value) | Delta<br>$\pm 10\%$ | Zoom Scan<br>to 100 mW       | Normalize<br>to 1 W | Target<br>(Ref. Value) | Delta<br>$\pm 10\%$ |          |
| A       | 6/18/2019 | Head        | D2600V2 SN:1036         | 3/22/2020               | 5.450                       | 54.50               | 55.90                  | -2.50               | 2.430                        | 24.30               | 24.80                  | -2.02               |          |
| A       | 6/21/2019 | Body        | D2600V2 SN:1036         | 3/22/2020               | 5.680                       | 56.80               | 53.90                  | 5.38                | 2.550                        | 25.50               | 23.90                  | 6.69                |          |
| A       | 6/21/2019 | Head        | D2600V2 SN:1036         | 3/22/2020               | 5.810                       | 58.10               | 55.90                  | 3.94                | 2.600                        | 26.00               | 24.80                  | 4.84                |          |
| A       | 6/24/2019 | Head        | D2600V2 SN:1036         | 3/22/2020               | 5.640                       | 56.40               | 55.90                  | 0.89                | 2.530                        | 25.30               | 24.80                  | 2.02                |          |
| A       | 6/24/2019 | Body        | D2600V2 SN:1036         | 3/22/2020               | 5.500                       | 55.00               | 53.90                  | 2.04                | 2.480                        | 24.80               | 23.90                  | 3.77                |          |
| A       | 6/27/2019 | Body        | D2600V2 SN:1036         | 3/22/2020               | 5.660                       | 56.60               | 53.90                  | 5.01                | 2.500                        | 25.00               | 23.90                  | 4.60                |          |
| A       | 6/27/2019 | Head        | D2600V2 SN:1036         | 3/22/2020               | 5.840                       | 58.40               | 55.90                  | 4.47                | 2.620                        | 26.20               | 24.80                  | 5.65                |          |
| A       | 7/1/2019  | Body        | D2600V2 SN:1036         | 3/22/2020               | 5.750                       | 57.50               | 53.90                  | 6.68                | 2.570                        | 25.70               | 23.90                  | 7.53                | 1,2      |
| A       | 7/1/2019  | Head        | D2600V2 SN:1036         | 3/22/2020               | 5.960                       | 59.60               | 55.90                  | 6.62                | 2.680                        | 26.80               | 24.80                  | 8.06                |          |
| A       | 7/5/2019  | Head        | D2600V2 SN:1036         | 3/22/2020               | 5.960                       | 59.60               | 55.90                  | 6.62                | 2.670                        | 26.70               | 24.80                  | 7.66                |          |
| A       | 7/5/2019  | Body        | D2600V2 SN:1036         | 3/22/2020               | 5.710                       | 57.10               | 53.90                  | 5.94                | 2.560                        | 25.60               | 23.90                  | 7.11                |          |
| A       | 7/9/2019  | Body        | D2600V2 SN:1036         | 3/22/2020               | 5.620                       | 56.20               | 53.90                  | 4.27                | 2.540                        | 25.40               | 23.90                  | 6.28                |          |
| A       | 7/9/2019  | Head        | D2600V2 SN:1036         | 3/22/2020               | 5.770                       | 57.70               | 55.90                  | 3.22                | 2.600                        | 26.00               | 24.80                  | 4.84                |          |
| A       | 7/29/2019 | Head        | D2600V2 SN:1036         | 3/22/2020               | 5.900                       | 59.00               | 55.90                  | 5.55                | 2.690                        | 26.90               | 24.80                  | 8.47                |          |
| A       | 7/29/2019 | Body        | D2600V2 SN:1036         | 3/22/2020               | 5.400                       | 54.00               | 53.90                  | 0.19                | 2.460                        | 24.60               | 23.90                  | 2.93                |          |
| B       | 6/14/2019 | Body        | D1900V2 SN:5d140        | 4/17/2020               | 4.220                       | 42.20               | 40.40                  | 4.46                | 2.170                        | 21.70               | 21.30                  | 1.88                | 3,4      |
| B       | 6/14/2019 | Head        | D1900V2 SN:5d140        | 4/17/2020               | 4.090                       | 40.90               | 39.50                  | 3.54                | 2.100                        | 21.00               | 20.60                  | 1.94                |          |
| B       | 6/17/2019 | Body        | D1750V2 SN:1050         | 4/17/2020               | 3.770                       | 37.70               | 36.40                  | 3.57                | 1.970                        | 19.70               | 19.20                  | 2.60                |          |
| B       | 6/17/2019 | Head        | D1750V2 SN:1050         | 4/17/2020               | 3.670                       | 36.70               | 35.40                  | 3.67                | 1.940                        | 19.40               | 18.60                  | 4.30                |          |
| B       | 6/17/2019 | Body        | D1900V2 SN:5d140        | 4/17/2020               | 4.000                       | 40.00               | 40.40                  | -0.99               | 2.060                        | 20.60               | 21.30                  | -3.29               |          |
| B       | 6/17/2019 | Head        | D1900V2 SN:5d140        | 4/17/2020               | 3.980                       | 39.80               | 39.50                  | 0.76                | 2.050                        | 20.50               | 20.60                  | -0.49               |          |
| B       | 6/21/2019 | Head        | D1750V2 SN:1050         | 4/17/2020               | 3.730                       | 37.30               | 35.40                  | 5.37                | 1.970                        | 19.70               | 18.60                  | 5.91                |          |
| B       | 6/21/2019 | Body        | D1750V2 SN:1050         | 4/17/2020               | 3.920                       | 39.20               | 36.40                  | 7.69                | 2.030                        | 20.30               | 19.20                  | 5.73                | 5,6      |
| B       | 6/25/2019 | Head        | D1750V2 SN:1077         | 10/16/2019              | 3.650                       | 36.50               | 38.69                  | -5.66               | 1.930                        | 19.30               | 20.46                  | -5.67               |          |
| B       | 6/25/2019 | Body        | D1750V2 SN:1077         | 10/16/2019              | 3.700                       | 37.00               | 39.29                  | -5.83               | 1.930                        | 19.30               | 21.05                  | -8.31               |          |
| B       | 6/29/2019 | Head        | D1750V2 SN:1050         | 4/17/2020               | 3.580                       | 35.80               | 35.40                  | 1.13                | 1.890                        | 18.90               | 18.60                  | 1.61                |          |
| B       | 6/29/2019 | Body        | D1750V2 SN:1050         | 4/17/2020               | 3.540                       | 35.40               | 36.40                  | -2.75               | 1.840                        | 18.40               | 19.20                  | -4.17               |          |
| B       | 7/2/2019  | Body        | D1750V2 SN:1077         | 10/16/2019              | 3.950                       | 39.50               | 39.29                  | 0.53                | 2.060                        | 20.60               | 21.05                  | -2.14               |          |
| B       | 7/2/2019  | Head        | D1750V2 SN:1077         | 10/16/2019              | 3.630                       | 36.30               | 38.69                  | -6.18               | 1.910                        | 19.10               | 20.46                  | -6.65               | 7,8      |
| B       | 7/3/2019  | Head        | D1900V2 SN:5d163        | 10/16/2019              | 4.230                       | 42.30               | 42.19                  | 0.26                | 2.170                        | 21.70               | 21.73                  | -0.14               |          |
| B       | 7/3/2019  | Body        | D1900V2 SN:5d163        | 10/16/2019              | 4.530                       | 45.30               | 42.59                  | 6.36                | 2.340                        | 23.40               | 22.17                  | 5.55                | 9,10     |
| B       | 7/6/2019  | Head        | D1750V2 SN:1050         | 4/17/2020               | 3.530                       | 35.30               | 35.40                  | -0.28               | 1.890                        | 18.90               | 18.60                  | 1.61                |          |
| B       | 7/6/2019  | Body        | D1750V2 SN:1050         | 4/17/2020               | 3.710                       | 37.10               | 36.40                  | 1.92                | 1.980                        | 19.80               | 19.20                  | 3.13                |          |
| B       | 7/30/2019 | Head        | D2600V2 SN:1036         | 3/22/2020               | 5.740                       | 57.40               | 55.90                  | 2.68                | 2.560                        | 25.60               | 24.80                  | 3.23                | 11,12    |

**System Check Results (Continued):**

| SAR Lab | Date      | Tissue Type | Dipole Type<br>Serial # | Dipole<br>Cal. Due Date | Measured Results for 1g SAR |                     |                        |                | Measured Results for 10g SAR |                     |                        |                | Plot No. |
|---------|-----------|-------------|-------------------------|-------------------------|-----------------------------|---------------------|------------------------|----------------|------------------------------|---------------------|------------------------|----------------|----------|
|         |           |             |                         |                         | Zoom Scan<br>to 100 mW      | Normalize<br>to 1 W | Target<br>(Ref. Value) | Delta<br>±10 % | Zoom Scan<br>to 100 mW       | Normalize<br>to 1 W | Target<br>(Ref. Value) | Delta<br>±10 % |          |
| C       | 6/18/2019 | Head        | D1900V2 SN:5d163        | 10/16/2019              | 4.160                       | 41.60               | 42.19                  | -1.40          | 2.110                        | 21.10               | 21.73                  | -2.90          |          |
| C       | 6/18/2019 | Body        | D1900V2 SN:5d163        | 10/16/2019              | 4.350                       | 43.50               | 42.59                  | 2.14           | 2.210                        | 22.10               | 22.17                  | -0.32          |          |
| C       | 6/21/2019 | Body        | D1900V2 SN:5d140        | 4/17/2020               | 4.060                       | 40.60               | 40.40                  | 0.50           | 2.030                        | 20.30               | 21.30                  | -4.69          |          |
| C       | 6/21/2019 | Head        | D1900V2 SN:5d140        | 4/17/2020               | 4.120                       | 41.20               | 39.50                  | 4.30           | 2.070                        | 20.70               | 20.60                  | 0.49           |          |
| C       | 6/25/2019 | Head        | D1900V2 SN:5d163        | 10/16/2019              | 4.140                       | 41.40               | 42.19                  | -1.87          | 2.100                        | 21.00               | 21.73                  | -3.36          |          |
| C       | 6/25/2019 | Body        | D1900V2 SN:5d163        | 10/16/2019              | 4.100                       | 41.00               | 42.59                  | -3.73          | 2.130                        | 21.30               | 22.17                  | -3.92          | 13,14    |
| C       | 6/29/2019 | Head        | D1900V2 SN:5d140        | 4/17/2020               | 4.050                       | 40.50               | 39.50                  | 2.53           | 2.050                        | 20.50               | 20.60                  | -0.49          |          |
| C       | 6/29/2019 | Body        | D1900V2 SN:5d140        | 4/17/2020               | 4.140                       | 41.40               | 40.40                  | 2.48           | 2.110                        | 21.10               | 21.30                  | -0.94          |          |
| C       | 7/2/2019  | Body        | D1900V2 SN:5d140        | 4/17/2020               | 4.170                       | 41.70               | 40.40                  | 3.22           | 2.150                        | 21.50               | 21.30                  | 0.94           |          |
| C       | 7/2/2019  | Head        | D1900V2 SN:5d140        | 4/17/2020               | 4.300                       | 43.00               | 39.50                  | 8.86           | 2.170                        | 21.70               | 20.60                  | 5.34           | 15,16    |
| C       | 7/6/2019  | Body        | D1900V2 SN:5d140        | 4/17/2020               | 4.060                       | 40.60               | 40.40                  | 0.50           | 2.090                        | 20.90               | 21.30                  | -1.88          |          |
| C       | 7/6/2019  | Head        | D1900V2 SN:5d140        | 4/17/2020               | 3.760                       | 37.60               | 39.50                  | -4.81          | 1.900                        | 19.00               | 20.60                  | -7.77          |          |
| D       | 6/20/2019 | Head        | D2600V2 SN:1036         | 3/22/2020               | 5.400                       | 54.00               | 55.90                  | -3.40          | 2.430                        | 24.30               | 24.80                  | -2.02          |          |
| D       | 6/21/2019 | Body        | D2300V2 SN:1002         | 3/22/2020               | 4.880                       | 48.80               | 46.80                  | 4.27           | 2.360                        | 23.60               | 22.60                  | 4.42           |          |
| D       | 6/21/2019 | Head        | D2300V2 SN:1002         | 3/22/2020               | 5.190                       | 51.90               | 48.30                  | 7.45           | 2.470                        | 24.70               | 23.30                  | 6.01           | 17,18    |
| D       | 6/21/2019 | Body        | D2600V2 SN:1036         | 3/22/2020               | 5.590                       | 55.90               | 53.90                  | 3.71           | 2.480                        | 24.80               | 23.90                  | 3.77           |          |
| D       | 6/24/2019 | Head        | D2300V2 SN:1002         | 3/22/2020               | 5.060                       | 50.60               | 48.30                  | 4.76           | 2.430                        | 24.30               | 23.30                  | 4.29           |          |
| D       | 6/24/2019 | Head        | D2600V2 SN:1036         | 3/22/2020               | 5.530                       | 55.30               | 55.90                  | -1.07          | 2.480                        | 24.80               | 24.80                  | 0.00           |          |
| D       | 6/24/2019 | Body        | D2300V2 SN:1002         | 3/22/2020               | 4.490                       | 44.90               | 46.80                  | -4.06          | 2.150                        | 21.50               | 22.60                  | -4.87          |          |
| D       | 6/24/2019 | Body        | D2600V2 SN:1036         | 3/22/2020               | 5.250                       | 52.50               | 53.90                  | -2.60          | 2.340                        | 23.40               | 23.90                  | -2.09          |          |
| D       | 6/27/2019 | Body        | D2300V2 SN:1002         | 3/22/2020               | 4.880                       | 48.80               | 46.80                  | 4.27           | 2.370                        | 23.70               | 22.60                  | 4.87           |          |
| D       | 6/27/2019 | Body        | D2600V2 SN:1036         | 3/22/2020               | 5.380                       | 53.80               | 53.90                  | -0.19          | 2.390                        | 23.90               | 23.90                  | 0.00           |          |
| D       | 6/29/2019 | Head        | D2300V2 SN:1002         | 3/22/2020               | 4.880                       | 48.80               | 48.30                  | 1.04           | 2.330                        | 23.30               | 23.30                  | 0.00           |          |
| D       | 6/29/2019 | Head        | D2600V2 SN:1036         | 3/22/2020               | 5.620                       | 56.20               | 55.90                  | 0.54           | 2.520                        | 25.20               | 24.80                  | 1.61           |          |
| D       | 7/1/2019  | Body        | D2300V2 SN:1002         | 3/22/2020               | 4.620                       | 46.20               | 46.80                  | -1.28          | 2.220                        | 22.20               | 22.60                  | -1.77          |          |
| D       | 7/1/2019  | Body        | D2600V2 SN:1036         | 3/22/2020               | 5.220                       | 52.20               | 53.90                  | -3.15          | 2.350                        | 23.50               | 23.90                  | -1.67          |          |
| D       | 7/5/2019  | Head        | D2600V2 SN:1036         | 3/22/2020               | 5.370                       | 53.70               | 55.90                  | -3.94          | 2.400                        | 24.00               | 24.80                  | -3.23          |          |
| D       | 7/5/2019  | Body        | D2600V2 SN:1036         | 3/22/2020               | 5.150                       | 51.50               | 53.90                  | -4.45          | 2.300                        | 23.00               | 23.90                  | -3.77          |          |
| D       | 7/5/2019  | Head        | D2300V2 SN:1002         | 3/22/2020               | 4.940                       | 49.40               | 48.30                  | 2.28           | 2.350                        | 23.50               | 23.30                  | 0.86           |          |
| D       | 7/5/2019  | Body        | D2300V2 SN:1002         | 3/22/2020               | 4.550                       | 45.50               | 46.80                  | -2.78          | 2.200                        | 22.00               | 22.60                  | -2.65          |          |
| D       | 7/9/2019  | Head        | D2600V2 SN:1036         | 3/22/2020               | 5.750                       | 57.50               | 55.90                  | 2.86           | 2.570                        | 25.70               | 24.80                  | 3.63           |          |
| D       | 7/9/2019  | Body        | D2600V2 SN:1036         | 3/22/2020               | 5.220                       | 52.20               | 53.90                  | -3.15          | 2.350                        | 23.50               | 23.90                  | -1.67          |          |
| D       | 7/29/2019 | Head        | D2600V2 SN:1036         | 3/22/2020               | 5.650                       | 56.50               | 55.90                  | 1.07           | 2.530                        | 25.30               | 24.80                  | 2.02           |          |
| D       | 7/29/2019 | Body        | D2600V2 SN:1036         | 3/22/2020               | 5.090                       | 50.90               | 53.90                  | -5.57          | 2.280                        | 22.80               | 23.90                  | -4.60          | 19,20    |

## System Check Results (Continued):

| SAR Lab | Date      | Tissue Type | Dipole Type<br>Serial #    | Dipole<br>Cal. Due Data | Measured Results for 1g SAR |                     |                        |                | Measured Results for 10g SAR |                     |                        |                | Plot No. |
|---------|-----------|-------------|----------------------------|-------------------------|-----------------------------|---------------------|------------------------|----------------|------------------------------|---------------------|------------------------|----------------|----------|
|         |           |             |                            |                         | Zoom Scan<br>to 100 mW      | Normalize<br>to 1 W | Target<br>(Ref. Value) | Delta<br>±10 % | Zoom Scan<br>to 100 mW       | Normalize<br>to 1 W | Target<br>(Ref. Value) | Delta<br>±10 % |          |
| E       | 6/17/2019 | Body        | D5GHZV2 SN:1168 (5.75 GHz) | 11/30/2019              | 6.980                       | 69.80               | 70.70                  | -1.27          | 1.960                        | 19.60               | 19.70                  | -0.51          |          |
| E       | 6/17/2019 | Head        | D5GHZV2 SN:1168 (5.75 GHz) | 11/30/2019              | 7.350                       | 73.50               | 80.80                  | -9.03          | 2.100                        | 21.00               | 23.00                  | -8.70          | 21,22    |
| E       | 6/20/2019 | Head        | D5GHZV2 SN:1168 (5.75 GHz) | 11/30/2019              | 7.460                       | 74.60               | 80.80                  | -7.67          | 2.140                        | 21.40               | 23.00                  | -6.96          |          |
| E       | 6/20/2019 | Body        | D5GHZV2 SN:1168 (5.75 GHz) | 11/30/2019              | 6.980                       | 69.80               | 70.70                  | -1.27          | 1.940                        | 19.40               | 19.70                  | -1.52          |          |
| E       | 6/24/2019 | Head        | D5GHZV2 SN:1168 (5.75 GHz) | 11/30/2019              | 7.390                       | 73.90               | 80.80                  | -8.54          | 2.110                        | 21.10               | 23.00                  | -8.26          |          |
| E       | 6/24/2019 | Body        | D5GHZV2 SN:1168 (5.75 GHz) | 11/30/2019              | 7.180                       | 71.80               | 70.70                  | 1.56           | 2.010                        | 20.10               | 19.70                  | 2.03           |          |
| E       | 6/24/2019 | Body        | D2450V2 SN:899             | 3/22/2020               | 4.860                       | 48.60               | 50.00                  | -2.80          | 2.270                        | 22.70               | 23.50                  | -3.40          |          |
| E       | 6/28/2019 | Body        | D5GHZV2 SN:1168 (5.75 GHz) | 11/30/2019              | 7.320                       | 73.20               | 70.70                  | 3.54           | 2.040                        | 20.40               | 19.70                  | 3.55           |          |
| E       | 6/28/2019 | Head        | D5GHZV2 SN:1168 (5.75 GHz) | 11/30/2019              | 7.530                       | 75.30               | 80.80                  | -6.81          | 2.160                        | 21.60               | 23.00                  | -6.09          |          |
| E       | 6/29/2019 | Head        | D5GHZV2 SN:1168 (5.25 GHz) | 11/30/2019              | 7.690                       | 76.90               | 81.70                  | -5.88          | 2.200                        | 22.00               | 23.40                  | -5.98          |          |
| E       | 6/29/2019 | Body        | D5GHZV2 SN:1168 (5.25 GHz) | 11/30/2019              | 6.960                       | 69.60               | 71.20                  | -2.25          | 1.950                        | 19.50               | 19.90                  | -2.01          |          |
| E       | 7/2/2019  | Head        | D5GHZV2 SN:1168 (5.75 GHz) | 11/30/2019              | 7.770                       | 77.70               | 80.80                  | -3.84          | 2.220                        | 22.20               | 23.00                  | -3.48          |          |
| E       | 7/2/2019  | Body        | D5GHZV2 SN:1168 (5.75 GHz) | 11/30/2019              | 7.360                       | 73.60               | 70.70                  | 4.10           | 2.050                        | 20.50               | 19.70                  | 4.06           |          |
| E       | 7/6/2019  | Head        | D5GHZV2 SN:1168 (5.75 GHz) | 11/30/2019              | 7.540                       | 75.40               | 80.80                  | -6.68          | 2.160                        | 21.60               | 23.00                  | -6.09          |          |
| E       | 7/6/2019  | Body        | D5GHZV2 SN:1168 (5.75 GHz) | 11/30/2019              | 7.490                       | 74.90               | 70.70                  | 5.94           | 2.090                        | 20.90               | 19.70                  | 6.09           |          |
| E       | 7/9/2019  | Head        | D5GHZV2 SN:1168 (5.75 GHz) | 11/30/2019              | 7.350                       | 73.50               | 80.80                  | -9.03          | 2.100                        | 21.00               | 23.00                  | -8.70          |          |
| E       | 7/9/2019  | Body        | D5GHZV2 SN:1168 (5.75 GHz) | 11/30/2019              | 7.110                       | 71.10               | 70.70                  | 0.57           | 1.980                        | 19.80               | 19.70                  | 0.51           |          |
| E       | 7/10/2019 | Body        | D2450V2 SN:899             | 3/22/2020               | 5.350                       | 53.50               | 50.00                  | 7.00           | 2.520                        | 25.20               | 23.50                  | 7.23           | 23,24    |
| E       | 7/13/2019 | Body        | D2600V2 SN:1036            | 3/22/2020               | 5.650                       | 56.50               | 53.90                  | 4.82           | 2.490                        | 24.90               | 23.90                  | 4.18           |          |
| E       | 7/30/2019 | Body        | D2600V2 SN:1036            | 3/22/2020               | 5.660                       | 56.60               | 53.90                  | 5.01           | 2.530                        | 25.30               | 23.90                  | 5.86           | 25,26    |
| F       | 6/17/2019 | Body        | D2450V2 SN:899             | 3/22/2020               | 5.330                       | 53.30               | 50.00                  | 6.60           | 2.440                        | 24.40               | 23.50                  | 3.83           |          |
| F       | 6/17/2019 | Head        | D2450V2 SN:899             | 3/22/2020               | 5.480                       | 54.80               | 51.60                  | 6.20           | 2.500                        | 25.00               | 24.10                  | 3.73           |          |
| F       | 6/20/2019 | Head        | D2450V2 SN:899             | 3/22/2020               | 5.590                       | 55.90               | 51.60                  | 8.33           | 2.540                        | 25.40               | 24.10                  | 5.39           |          |
| F       | 6/20/2019 | Body        | D2450V2 SN:899             | 3/22/2020               | 5.350                       | 53.50               | 50.00                  | 7.00           | 2.450                        | 24.50               | 23.50                  | 4.26           |          |
| F       | 6/24/2019 | Head        | D2450V2 SN:899             | 3/22/2020               | 5.170                       | 51.70               | 51.60                  | 0.19           | 2.360                        | 23.60               | 24.10                  | -2.07          |          |
| F       | 6/24/2019 | Body        | D2450V2 SN:899             | 3/22/2020               | 5.450                       | 54.50               | 50.00                  | 9.00           | 2.510                        | 25.10               | 23.50                  | 6.81           | 27,28    |
| F       | 6/28/2019 | Body        | D2450V2 SN:899             | 3/22/2020               | 5.250                       | 52.50               | 50.00                  | 5.00           | 2.450                        | 24.50               | 23.50                  | 4.26           |          |
| F       | 6/28/2019 | Head        | D2450V2 SN:899             | 3/22/2020               | 5.320                       | 53.20               | 51.60                  | 3.10           | 2.440                        | 24.40               | 24.10                  | 1.24           |          |
| F       | 7/1/2019  | Head        | D2450V2 SN:899             | 3/22/2020               | 5.590                       | 55.90               | 51.60                  | 8.33           | 2.550                        | 25.50               | 24.10                  | 5.81           |          |
| F       | 7/1/2019  | Body        | D2450V2 SN:899             | 3/22/2020               | 5.200                       | 52.00               | 50.00                  | 4.00           | 2.390                        | 23.90               | 23.50                  | 1.70           |          |
| F       | 7/5/2019  | Body        | D2450V2 SN:899             | 3/22/2020               | 4.870                       | 48.70               | 50.00                  | -2.60          | 2.240                        | 22.40               | 23.50                  | -4.68          |          |
| F       | 7/5/2019  | Head        | D2450V2 SN:899             | 3/22/2020               | 5.260                       | 52.60               | 51.60                  | 1.94           | 2.390                        | 23.90               | 24.10                  | -0.83          |          |
| F       | 7/9/2019  | Head        | D2450V2 SN:899             | 3/22/2020               | 4.960                       | 49.60               | 51.60                  | -3.88          | 2.260                        | 22.60               | 24.10                  | -6.22          |          |
| F       | 7/9/2019  | Body        | D2450V2 SN:899             | 3/22/2020               | 5.340                       | 53.40               | 50.00                  | 6.80           | 2.440                        | 24.40               | 23.50                  | 3.83           |          |
| F       | 7/13/2019 | Body        | D2450V2 SN:899             | 3/22/2020               | 5.360                       | 53.60               | 50.00                  | 7.20           | 2.460                        | 24.60               | 23.50                  | 4.68           |          |
| F       | 7/13/2019 | Head        | D2450V2 SN:899             | 3/22/2020               | 5.010                       | 50.10               | 51.60                  | -2.91          | 2.280                        | 22.80               | 24.10                  | -5.39          |          |
| F       | 7/30/2019 | Body        | D2600V2 SN:1036            | 3/22/2020               | 5.580                       | 55.80               | 53.90                  | 3.53           | 2.390                        | 23.90               | 23.90                  | 0.00           | 29,30    |
| F       | 8/9/2019  | Head        | D3700V2 SN:1039            | 6/12/2020               | 6.850                       | 68.50               | 66.50                  | 3.01           | 2.530                        | 25.30               | 24.20                  | 4.55           |          |
| F       | 8/9/2019  | Body        | D3700V2 SN:1039            | 6/12/2020               | 6.580                       | 65.80               | 62.90                  | 4.61           | 2.390                        | 23.90               | 22.50                  | 6.22           | 31,32    |

## System Check Results (Continued):

| SAR Lab | Date      | Tissue Type | Dipole Type<br>Serial #    | Dipole<br>Cal. Due Date | Measured Results for 1g SAR |                     |                        |                | Measured Results for 10g SAR |                     |                        |                | Plot No. |
|---------|-----------|-------------|----------------------------|-------------------------|-----------------------------|---------------------|------------------------|----------------|------------------------------|---------------------|------------------------|----------------|----------|
|         |           |             |                            |                         | Zoom Scan<br>to 100 mW      | Normalize<br>to 1 W | Target<br>(Ref. Value) | Delta<br>±10 % | Zoom Scan<br>to 100 mW       | Normalize<br>to 1 W | Target<br>(Ref. Value) | Delta<br>±10 % |          |
| G       | 6/17/2019 | Head        | D5GHZV2 SN:1168 (5.25 GHz) | 11/30/2019              | 7.540                       | 75.40               | 81.70                  | -7.71          | 2.140                        | 21.40               | 23.40                  | -8.55          |          |
| G       | 6/17/2019 | Body        | D5GHZV2 SN:1168 (5.25 GHz) | 11/30/2019              | 7.260                       | 72.60               | 71.20                  | 1.97           | 2.060                        | 20.60               | 19.90                  | 3.52           |          |
| G       | 6/20/2019 | Head        | D5GHZV2 SN:1168 (5.25 GHz) | 11/30/2019              | 7.360                       | 73.60               | 81.70                  | -9.91          | 2.110                        | 21.10               | 23.40                  | -9.83          | 33,34    |
| G       | 6/20/2019 | Body        | D5GHZV2 SN:1168 (5.25 GHz) | 11/30/2019              | 7.520                       | 75.20               | 71.20                  | 5.62           | 2.130                        | 21.30               | 19.90                  | 7.04           |          |
| G       | 6/24/2019 | Head        | D5GHZV2 SN:1168 (5.25 GHz) | 11/30/2019              | 7.380                       | 73.80               | 81.70                  | -9.67          | 2.120                        | 21.20               | 23.40                  | -9.40          |          |
| G       | 6/24/2019 | Body        | D5GHZV2 SN:1168 (5.25 GHz) | 11/30/2019              | 7.440                       | 74.40               | 71.20                  | 4.49           | 2.110                        | 21.10               | 19.90                  | 6.03           |          |
| G       | 6/26/2019 | Body        | D2600V2 SN:1036            | 3/22/2020               | 5.030                       | 50.30               | 53.90                  | -6.68          | 2.190                        | 21.90               | 23.90                  | -8.37          | 35,36    |
| G       | 7/1/2019  | Body        | D2600V2 SN:1036            | 3/22/2020               | 5.300                       | 53.00               | 53.90                  | -1.67          | 2.340                        | 23.40               | 23.90                  | -2.09          |          |
| G       | 7/1/2019  | Head        | D5GHZV2 SN:1168 (5.25 GHz) | 11/30/2019              | 7.970                       | 79.70               | 81.70                  | -2.45          | 2.280                        | 22.80               | 23.40                  | -2.56          |          |
| G       | 7/1/2019  | Body        | D5GHZV2 SN:1168 (5.25 GHz) | 11/30/2019              | 7.320                       | 73.20               | 71.20                  | 2.81           | 2.090                        | 20.90               | 19.90                  | 5.03           |          |
| G       | 7/3/2019  | Body        | D1900V2 SN:5d140           | 4/17/2020               | 4.010                       | 40.10               | 40.40                  | -0.74          | 2.100                        | 21.00               | 21.30                  | -1.41          | 37,38    |
| G       | 7/5/2019  | Head        | D5GHZV2 SN:1003 (5.25 GHz) | 2/19/2020               | 7.340                       | 73.40               | 80.80                  | -9.16          | 2.100                        | 21.00               | 23.30                  | -9.87          | 39,40    |
| G       | 7/5/2019  | Body        | D5GHZV2 SN:1003 (5.25 GHz) | 2/19/2020               | 6.830                       | 68.30               | 74.40                  | -8.20          | 1.930                        | 19.30               | 20.80                  | -7.21          |          |
| G       | 7/9/2019  | Head        | D5GHZV2 SN:1168 (5.25 GHz) | 11/30/2019              | 8.290                       | 82.90               | 81.70                  | 1.47           | 2.380                        | 23.80               | 23.40                  | 1.71           |          |
| G       | 7/9/2019  | Body        | D5GHZV2 SN:1168 (5.25 GHz) | 11/30/2019              | 7.120                       | 71.20               | 71.20                  | 0.00           | 2.020                        | 20.20               | 19.90                  | 1.51           |          |
| G       | 7/11/2019 | Body        | D2450V2 SN:899             | 3/22/2020               | 4.950                       | 49.50               | 50.00                  | -1.00          | 2.280                        | 22.80               | 23.50                  | -2.98          | 41,42    |
| G       | 7/15/2019 | Body        | D5GHZV2 SN:1003 (5.60 GHz) | 2/19/2020               | 8.620                       | 86.20               | 79.30                  | 8.70           | 2.410                        | 24.10               | 22.30                  | 8.07           |          |
| H       | 6/16/2019 | Body        | D5GHZV2 SN:1168 (5.60 GHz) | 11/30/2019              | 7.540                       | 75.40               | 76.20                  | -1.05          | 2.130                        | 21.30               | 21.20                  | 0.47           |          |
| H       | 6/17/2019 | Head        | D5GHZV2 SN:1168 (5.60 GHz) | 11/30/2019              | 8.780                       | 87.80               | 87.00                  | 0.92           | 2.470                        | 24.70               | 24.70                  | 0.00           |          |
| H       | 6/20/2019 | Head        | D5GHZV2 SN:1003 (5.60 GHz) | 2/19/2020               | 8.320                       | 83.20               | 82.70                  | 0.60           | 2.340                        | 23.40               | 23.80                  | -1.68          |          |
| H       | 6/20/2019 | Body        | D5GHZV2 SN:1003 (5.60 GHz) | 2/19/2020               | 7.840                       | 78.40               | 79.30                  | -1.13          | 2.200                        | 22.00               | 22.30                  | -1.35          |          |
| H       | 6/24/2019 | Head        | D5GHZV2 SN:1003 (5.60 GHz) | 2/19/2020               | 8.000                       | 80.00               | 82.70                  | -3.26          | 2.280                        | 22.80               | 23.80                  | -4.20          |          |
| H       | 6/24/2019 | Body        | D5GHZV2 SN:1003 (5.60 GHz) | 2/19/2020               | 8.170                       | 81.70               | 79.30                  | 3.03           | 2.290                        | 22.90               | 22.30                  | 2.69           |          |
| H       | 6/25/2019 | Head        | D2450V2 SN:899             | 3/22/2020               | 5.000                       | 50.00               | 51.60                  | -3.10          | 2.320                        | 23.20               | 24.10                  | -3.73          | 43,44    |
| H       | 6/28/2019 | Body        | D5GHZV2 SN:1003 (5.60 GHz) | 2/19/2020               | 7.900                       | 79.00               | 79.30                  | -0.38          | 2.220                        | 22.20               | 22.30                  | -0.45          |          |
| H       | 6/28/2019 | Head        | D5GHZV2 SN:1003 (5.60 GHz) | 2/19/2020               | 8.620                       | 86.20               | 82.70                  | 4.23           | 2.430                        | 24.30               | 23.80                  | 2.10           |          |
| H       | 6/29/2019 | Body        | D5GHZV2 SN:1168 (5.25 GHz) | 11/30/2019              | 7.120                       | 71.20               | 71.20                  | 0.00           | 2.040                        | 20.40               | 19.90                  | 2.51           |          |
| H       | 6/30/2019 | Head        | D1900V2 SN:5d140           | 4/17/2020               | 4.170                       | 41.70               | 39.50                  | 5.57           | 2.140                        | 21.40               | 20.60                  | 3.88           | 45,46    |
| H       | 7/5/2019  | Head        | D5GHZV2 SN:1003 (5.60 GHz) | 2/19/2020               | 8.870                       | 88.70               | 82.70                  | 7.26           | 2.500                        | 25.00               | 23.80                  | 5.04           | 47,48    |
| H       | 7/5/2019  | Body        | D5GHZV2 SN:1003 (5.60 GHz) | 2/19/2020               | 8.440                       | 84.40               | 79.30                  | 6.43           | 2.370                        | 23.70               | 22.30                  | 6.28           |          |
| H       | 7/9/2019  | Head        | D5GHZV2 SN:1168 (5.60 GHz) | 11/30/2019              | 8.160                       | 81.60               | 87.00                  | -6.21          | 2.300                        | 23.00               | 24.70                  | -6.88          | 49,50    |
| H       | 7/9/2019  | Body        | D5GHZV2 SN:1168 (5.60 GHz) | 11/30/2019              | 7.580                       | 75.80               | 76.20                  | -0.52          | 2.130                        | 21.30               | 21.20                  | 0.47           |          |

## System Check Results (Continued):

| SAR Lab | Date      | Tissue Type | Dipole Type<br>Serial # | Dipole<br>Cal. Due Data | Measured Results for 1g SAR |                     |                        |                | Measured Results for 10g SAR |                     |                        |                | Plot No. |
|---------|-----------|-------------|-------------------------|-------------------------|-----------------------------|---------------------|------------------------|----------------|------------------------------|---------------------|------------------------|----------------|----------|
|         |           |             |                         |                         | Zoom Scan<br>to 100 mW      | Normalize<br>to 1 W | Target<br>(Ref. Value) | Delta<br>±10 % | Zoom Scan<br>to 100 mW       | Normalize<br>to 1 W | Target<br>(Ref. Value) | Delta<br>±10 % |          |
| 6       | 7/2/2019  | Head        | D3500V2 SN:1011         | 5/13/2020               | 6.600                       | 66.00               | 64.50                  | 2.33           | 2.510                        | 25.10               | 24.30                  | 3.29           |          |
| 6       | 7/2/2019  | Body        | D3500V2 SN:1011         | 5/13/2020               | 6.580                       | 65.80               | 66.00                  | -0.30          | 2.320                        | 23.20               | 24.40                  | -4.92          |          |
| 6       | 7/2/2019  | Head        | D3700V2 SN:1039         | 6/12/2020               | 6.850                       | 68.50               | 66.50                  | 3.01           | 2.540                        | 25.40               | 24.20                  | 4.96           |          |
| 6       | 7/2/2019  | Body        | D3700V2 SN:1039         | 6/12/2020               | 6.030                       | 60.30               | 62.90                  | -4.13          | 2.070                        | 20.70               | 22.50                  | -8.00          |          |
| 6       | 7/6/2019  | Head        | D3700V2 SN:1039         | 6/12/2020               | 6.070                       | 60.70               | 66.50                  | -8.72          | 2.240                        | 22.40               | 24.20                  | -7.44          | 51,52    |
| 6       | 7/6/2019  | Body        | D3700V2 SN:1039         | 6/12/2020               | 5.980                       | 59.80               | 62.90                  | -4.93          | 2.100                        | 21.00               | 22.50                  | -6.67          |          |
| 6       | 7/6/2019  | Head        | D3500V2 SN:1011         | 5/13/2020               | 6.180                       | 61.80               | 64.50                  | -4.19          | 2.340                        | 23.40               | 24.30                  | -3.70          |          |
| 6       | 7/6/2019  | Body        | D3500V2 SN:1011         | 5/13/2020               | 6.300                       | 63.00               | 66.00                  | -4.55          | 2.280                        | 22.80               | 24.40                  | -6.56          |          |
| 6       | 7/10/2019 | Head        | D3500V2 SN:1011         | 5/13/2020               | 6.460                       | 64.60               | 64.50                  | 0.16           | 2.460                        | 24.60               | 24.30                  | 1.23           |          |
| 6       | 7/10/2019 | Body        | D3500V2 SN:1011         | 5/13/2020               | 6.090                       | 60.90               | 66.00                  | -7.73          | 2.210                        | 22.10               | 24.40                  | -9.43          | 53,54    |
| 6       | 7/10/2019 | Head        | D3700V2 SN:1039         | 6/12/2020               | 6.430                       | 64.30               | 66.50                  | -3.31          | 2.390                        | 23.90               | 24.20                  | -1.24          |          |
| 6       | 7/10/2019 | Body        | D3700V2 SN:1039         | 6/12/2020               | 6.020                       | 60.20               | 62.90                  | -4.29          | 2.120                        | 21.20               | 22.50                  | -5.78          |          |
| 6       | 7/14/2019 | Head        | D3500V2 SN:1011         | 5/13/2020               | 6.000                       | 60.00               | 64.50                  | -6.98          | 2.290                        | 22.90               | 24.30                  | -5.76          |          |
| 6       | 7/14/2019 | Body        | D3500V2 SN:1011         | 5/13/2020               | 6.120                       | 61.20               | 66.00                  | -7.27          | 2.220                        | 22.20               | 24.40                  | -9.02          |          |
| 6       | 7/14/2019 | Head        | D3700V2 SN:1039         | 6/12/2020               | 6.470                       | 64.70               | 66.50                  | -2.71          | 2.390                        | 23.90               | 24.20                  | -1.24          |          |
| 6       | 7/14/2019 | Body        | D3700V2 SN:1039         | 6/12/2020               | 6.600                       | 66.00               | 62.90                  | 4.93           | 2.300                        | 23.00               | 22.50                  | 2.22           |          |
| 7       | 6/14/2019 | Head        | D835V2 SN:4d002         | 11/28/2019              | 0.980                       | 9.80                | 9.87                   | -0.71          | 0.638                        | 6.38                | 6.36                   | 0.31           |          |
| 7       | 6/14/2019 | Body        | D835V2 SN:4d002         | 11/28/2019              | 1.020                       | 10.20               | 10.07                  | 1.29           | 0.662                        | 6.62                | 6.56                   | 0.91           |          |
| 7       | 6/18/2019 | Body        | D835V2 SN:4d002         | 11/28/2019              | 1.100                       | 11.00               | 10.07                  | 9.24           | 0.715                        | 7.15                | 6.56                   | 8.99           | 55,56    |
| 7       | 6/19/2019 | Head        | D835V2 SN:4d002         | 11/28/2019              | 0.997                       | 9.97                | 9.87                   | 1.01           | 0.650                        | 6.50                | 6.36                   | 2.20           |          |
| 7       | 6/21/2019 | Head        | D2600V2 SN:1036         | 3/22/2020               | 5.790                       | 57.90               | 55.90                  | 3.58           | 2.600                        | 26.00               | 24.80                  | 4.84           |          |
| 7       | 6/25/2019 | Head        | D835V2 SN:4d002         | 11/28/2019              | 1.000                       | 10.00               | 9.87                   | 1.32           | 0.652                        | 6.52                | 6.36                   | 2.52           |          |
| 7       | 6/25/2019 | Body        | D835V2 SN:4d002         | 11/28/2019              | 1.020                       | 10.20               | 10.07                  | 1.29           | 0.657                        | 6.57                | 6.56                   | 0.15           |          |
| 7       | 6/27/2019 | Body        | D2600V2 SN:1006         | 10/16/2019              | 5.490                       | 54.90               | 58.52                  | -6.19          | 2.400                        | 24.00               | 26.15                  | -8.22          | 57,58    |
| 7       | 7/23/2019 | Body        | D835V2 SN:4d117         | 5/15/2020               | 1.000                       | 10.00               | 9.68                   | 3.31           | 0.644                        | 6.44                | 6.32                   | 1.90           | 59,60    |
| 7       | 7/26/2019 | Head        | D835V2 SN:4d002         | 11/28/2019              | 1.010                       | 10.10               | 9.87                   | 2.33           | 0.655                        | 6.55                | 6.36                   | 2.99           |          |
| 7       | 7/29/2019 | Body        | D835V2 SN:4d002         | 11/28/2019              | 1.020                       | 10.20               | 10.07                  | 1.29           | 0.655                        | 6.55                | 6.56                   | -0.15          |          |
| 9       | 6/16/2019 | Head        | D835V2 SN:4d117         | 5/15/2020               | 0.924                       | 9.24                | 9.50                   | -2.74          | 0.611                        | 6.11                | 6.17                   | -0.97          | 61,62    |
| 9       | 6/24/2019 | Head        | D3500V2 SN:1011         | 5/13/2020               | 6.820                       | 68.20               | 64.50                  | 5.74           | 2.650                        | 26.50               | 24.30                  | 9.05           | 63,64    |
| 9       | 6/24/2019 | Body        | D3500V2 SN:1011         | 5/13/2020               | 6.250                       | 62.50               | 66.00                  | -5.30          | 2.370                        | 23.70               | 24.40                  | -2.87          |          |
| 9       | 6/24/2019 | Head        | D3700V2 SN:1039         | 6/12/2020               | 6.460                       | 64.60               | 66.50                  | -2.86          | 2.410                        | 24.10               | 24.20                  | -0.41          |          |
| 9       | 6/24/2019 | Body        | D3700V2 SN:1039         | 6/12/2020               | 5.850                       | 58.50               | 62.90                  | -7.00          | 2.170                        | 21.70               | 22.50                  | -3.56          | 65,66    |
| 9       | 6/28/2019 | Head        | D750V3 SN:1071          | 11/28/2019              | 0.827                       | 8.27                | 8.32                   | -0.60          | 0.546                        | 5.46                | 5.45                   | 0.18           |          |
| 9       | 6/28/2019 | Body        | D750V3 SN:1071          | 11/28/2019              | 0.915                       | 9.15                | 8.63                   | 6.03           | 0.610                        | 6.10                | 5.65                   | 7.96           | 67,68    |
| 9       | 6/28/2019 | Head        | D2600V2 SN:1006         | 10/16/2019              | 5.470                       | 54.70               | 59.31                  | -7.77          | 2.460                        | 24.60               | 26.43                  | -6.92          | 69,70    |
| 9       | 7/2/2019  | Head        | D750V3 SN:1019          | 3/21/2020               | 0.815                       | 8.15                | 8.29                   | -1.69          | 0.538                        | 5.38                | 5.44                   | -1.10          |          |
| 9       | 7/2/2019  | Body        | D750V3 SN:1019          | 3/21/2020               | 0.892                       | 8.92                | 8.47                   | 5.31           | 0.594                        | 5.94                | 5.59                   | 6.26           | 71,72    |
| 9       | 7/6/2019  | Head        | D750V3 SN:1071          | 11/28/2019              | 0.799                       | 7.99                | 8.32                   | -3.97          | 0.524                        | 5.24                | 5.45                   | -3.85          |          |
| 9       | 7/6/2019  | Body        | D750V3 SN:1071          | 11/28/2019              | 0.891                       | 8.91                | 8.63                   | 3.24           | 0.593                        | 5.93                | 5.65                   | 4.96           |          |

## 9. Conducted Output Power Measurements

Power measurements were performed in accordance to the device's two power modes, Mode A and Mode B for each antenna. Mode A power is used when the device is used against the user's head or away from the body. Mode B power is used when the device is used in a Body-worn configuration by the user.

The selection between antennas ANT1, ANT2, ANT3, ANT4, ANT5, and ANT6 in the application is based on RSSI based antenna selection. The full details of power selections are described in the operational description. Refer to Sec. 7 and Sec. 10 for details of the testing. Test reductions have applied accordingly following the SAR KDB Procedure for the supported wireless technologies of the DUT. This is noted in detail for each technology in their respective Sections.

The Tune-up limit already includes component tolerance. KDB 447498 sec.4.1.(d) at the maximum rated output power and within the tune-up tolerance range specified for the product, but not more than 2 dB lower than the maximum tune-up tolerance limit.

### 9.1. GSM

#### Per KDB 941225 D01 3G SAR Procedures:

SAR test reduction for GPRS and EDGE modes is determined by the source-based time-averaged output power specified for production units, including tune-up tolerance. The data mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested.

When different maximum output power applies to GSM voice or GPRS/EDGE time slots, GSM voice and GPRS/EDGE time slots should be tested separately to determine compliance by summing the corresponding reported SAR.

The GSMK EDGE configurations are grouped with GPRS and considered with respect to time-averaged maximum output power to determine compliance

#### Per October 2013 TCB Workshop:

When the maximum frame-averaged powers levels are within 0.25 dB of each other, test the configuration with the most number of time slots.

#### Maximum Output Power (Tune-up Limit) for GSM

SAR is not required for EDGE (8PSK) mode because the maximum output power and tune-up limit is  $\leq 1/4$ dB higher than GPRS/EDGE (GMSK) or the adjusted SAR of the highest reported SAR of GPRS/EDGE (GMSK) is  $\leq 1.2$ W/kg.

| RF Air interface | Mode                | Maximum Output Power (Tune-up Limit)<br>(dBm) |        |        |        |        |        |        |        |
|------------------|---------------------|-----------------------------------------------|--------|--------|--------|--------|--------|--------|--------|
|                  |                     | ANT1                                          |        | ANT2   |        | ANT3   |        | ANT4   |        |
|                  |                     | Mode A                                        | Mode B | Mode A | Mode B | Mode A | Mode B | Mode A | Mode B |
| GSM850           | Voice/GPRS (1 slot) | 33.25                                         | 33.25  | 31.75  | 31.75  |        |        |        |        |
|                  | GPRS 2 slots        | 32.25                                         | 32.25  | 30.75  | 30.75  |        |        |        |        |
|                  | EGPRS 1 slot        | 27.75                                         | 27.75  | 25.75  | 25.75  |        |        |        |        |
|                  | EGPRS 2 slots       | 26.75                                         | 26.75  | 24.75  | 24.75  |        |        |        |        |
| GSM1900          | Voice/GPRS (1 slot) | 31.75                                         | 30.75  | 29.25  | 28.50  | 32.00  | 28.75  | 28.00  | 29.00  |
|                  | GPRS 2 slots        | 30.75                                         | 27.75  | 26.50  | 25.50  | 31.00  | 25.75  | 25.00  | 26.00  |
|                  | EGPRS 1 slot        | 26.75                                         | 26.75  | 24.25  | 24.25  | 27.00  | 27.00  | 25.00  | 25.00  |
|                  | EGPRS 2 slots       | 25.75                                         | 25.75  | 23.25  | 23.25  | 26.00  | 25.75  | 24.00  | 24.00  |

**GSM850 Measured Results (ANT1)**

| Mode             | Coding Scheme | Time Slots | Ch No. | Freq. (MHz) | Power Mode A (dBm) |           |               |           | Power Mode B (dBm) |           |               |           |
|------------------|---------------|------------|--------|-------------|--------------------|-----------|---------------|-----------|--------------------|-----------|---------------|-----------|
|                  |               |            |        |             | Measured           |           | Tune-up Limit |           | Measured           |           | Tune-up Limit |           |
|                  |               |            |        |             | Burst Pwr          | Frame Pwr | Burst Pwr     | Frame Pwr | Burst Pwr          | Frame Pwr | Burst Pwr     | Frame Pwr |
| GPRS/EDGE (GMSK) | CS1           | 1          | 128    | 824.2       | 32.30              | 23.27     | 33.25         | 24.22     | 32.30              | 23.27     | 33.25         | 24.22     |
|                  |               |            | 190    | 836.6       | 32.23              | 23.20     |               |           | 32.23              | 23.20     |               |           |
|                  |               |            | 251    | 848.8       | 32.27              | 23.24     |               |           | 32.27              | 23.24     |               |           |
|                  |               | 2          | 128    | 824.2       | 31.75              | 25.73     | 32.25         | 26.23     | 31.75              | 25.73     | 32.25         | 26.23     |
|                  |               |            | 190    | 836.6       | 31.75              | 25.73     |               |           | 31.75              | 25.73     |               |           |
|                  |               |            | 251    | 848.8       | 31.75              | 25.73     |               |           | 31.75              | 25.73     |               |           |
| EDGE (8PSK)      | MCS5          | 1          | 128    | 824.2       | 26.44              | 17.41     | 27.75         | 18.72     | 26.44              | 17.41     | 27.75         | 18.72     |
|                  |               |            | 190    | 836.6       | 26.38              | 17.35     |               |           | 26.38              | 17.35     |               |           |
|                  |               |            | 251    | 848.8       | 26.38              | 17.35     |               |           | 26.38              | 17.35     |               |           |
|                  |               | 2          | 128    | 824.2       | 26.65              | 20.63     | 26.75         | 20.73     | 26.65              | 20.63     | 26.75         | 20.73     |
|                  |               |            | 190    | 836.6       | 26.61              | 20.59     |               |           | 26.61              | 20.59     |               |           |
|                  |               |            | 251    | 848.8       | 26.59              | 20.57     |               |           | 26.59              | 20.57     |               |           |

**Notes:**

Based on the Tune-up Procedure, GPRS/EDGE (GMSK) mode with 2 time slots for Mode A and Mode B have maximum frame-averaged power.

**GSM850 Measured Results (ANT2)**

| Mode             | Coding Scheme | Time Slots | Ch No. | Freq. (MHz) | Power Mode A (dBm) |           |               |           | Power Mode B (dBm) |           |               |           |
|------------------|---------------|------------|--------|-------------|--------------------|-----------|---------------|-----------|--------------------|-----------|---------------|-----------|
|                  |               |            |        |             | Measured           |           | Tune-up Limit |           | Measured           |           | Tune-up Limit |           |
|                  |               |            |        |             | Burst Pwr          | Frame Pwr | Burst Pwr     | Frame Pwr | Burst Pwr          | Frame Pwr | Burst Pwr     | Frame Pwr |
| GPRS/EDGE (GMSK) | CS1           | 1          | 128    | 824.2       | 30.94              | 21.91     | 31.75         | 22.72     | 30.94              | 21.91     | 31.75         | 22.72     |
|                  |               |            | 190    | 836.6       | 30.89              | 21.86     |               |           | 30.89              | 21.86     |               |           |
|                  |               |            | 251    | 848.8       | 30.89              | 21.86     |               |           | 30.89              | 21.86     |               |           |
|                  |               | 2          | 128    | 824.2       | 30.25              | 24.23     | 30.75         | 24.73     | 30.25              | 24.23     | 30.75         | 24.73     |
|                  |               |            | 190    | 836.6       | 30.25              | 24.23     |               |           | 30.25              | 24.23     |               |           |
|                  |               |            | 251    | 848.8       | 30.25              | 24.23     |               |           | 30.25              | 24.23     |               |           |
| EDGE (8PSK)      | MCS5          | 1          | 128    | 824.2       | 25.32              | 16.29     | 25.75         | 16.72     | 25.32              | 16.29     | 25.75         | 16.72     |
|                  |               |            | 190    | 836.6       | 25.37              | 16.34     |               |           | 25.37              | 16.34     |               |           |
|                  |               |            | 251    | 848.8       | 25.41              | 16.38     |               |           | 25.41              | 16.38     |               |           |
|                  |               | 2          | 128    | 824.2       | 24.61              | 18.59     | 24.75         | 18.73     | 24.61              | 18.59     | 24.75         | 18.73     |
|                  |               |            | 190    | 836.6       | 24.57              | 18.55     |               |           | 24.57              | 18.55     |               |           |
|                  |               |            | 251    | 848.8       | 24.59              | 18.57     |               |           | 24.59              | 18.57     |               |           |

**Notes:**

Based on the Tune-up Procedure, GPRS/EDGE (GMSK) mode with 2 time slots for Mode A and Mode B have maximum frame-averaged power.

**GSM1900 Measured Results (ANT1)**

| Mode             | Coding Scheme | Time Slots | Ch No. | Freq. (MHz) | Power Mode A (dBm) |           |               |           | Power Mode B (dBm) |           |               |           |
|------------------|---------------|------------|--------|-------------|--------------------|-----------|---------------|-----------|--------------------|-----------|---------------|-----------|
|                  |               |            |        |             | Measured           |           | Tune-up Limit |           | Measured           |           | Tune-up Limit |           |
|                  |               |            |        |             | Burst Pwr          | Frame Pwr | Burst Pwr     | Frame Pwr | Burst Pwr          | Frame Pwr | Burst Pwr     | Frame Pwr |
| GPRS/EDGE (GMSK) | CS1           | 1          | 512    | 1850.2      | 30.38              | 21.35     | 31.75         | 22.72     | 30.23              | 21.20     | 30.75         | 21.72     |
|                  |               |            | 661    | 1880.0      | 30.10              | 21.07     |               |           | 29.90              | 20.87     |               |           |
|                  |               |            | 810    | 1909.8      | 29.89              | 20.86     |               |           | 29.85              | 20.82     |               |           |
|                  |               | 2          | 512    | 1850.2      | 30.50              | 24.48     | 30.75         | 24.73     | 27.60              | 21.58     | 27.75         | 21.73     |
|                  |               |            | 661    | 1880.0      | 30.25              | 24.23     |               |           | 27.50              | 21.48     |               |           |
|                  |               |            | 810    | 1909.8      | 30.25              | 24.23     |               |           | 27.40              | 21.38     |               |           |
| EDGE (8PSK)      | MCS5          | 1          | 512    | 1850.2      | 26.70              | 17.67     | 26.75         | 17.72     | 25.92              | 16.89     | 26.75         | 17.72     |
|                  |               |            | 661    | 1880.0      | 26.50              | 17.47     |               |           | 25.65              | 16.62     |               |           |
|                  |               |            | 810    | 1909.8      | 26.50              | 17.47     |               |           | 25.50              | 16.47     |               |           |
|                  |               | 2          | 512    | 1850.2      | 25.75              | 19.73     | 25.75         | 19.73     | 25.75              | 19.73     | 25.75         | 19.73     |
|                  |               |            | 661    | 1880.0      | 25.64              | 19.62     |               |           | 25.64              | 19.62     |               |           |
|                  |               |            | 810    | 1909.8      | 25.60              | 19.58     |               |           | 25.60              | 19.58     |               |           |

**Notes:**

Based on the Tune-up Procedure, GPRS/EDGE (GMSK) mode with 2 time slots for Mode A and Mode B have maximum frame-averaged power.

**GSM1900 Measured Results (ANT2)**

| Mode             | Coding Scheme | Time Slots | Ch No. | Freq. (MHz) | Power Mode A (dBm) |           |               |           | Power Mode B (dBm) |           |               |           |
|------------------|---------------|------------|--------|-------------|--------------------|-----------|---------------|-----------|--------------------|-----------|---------------|-----------|
|                  |               |            |        |             | Measured           |           | Tune-up Limit |           | Measured           |           | Tune-up Limit |           |
|                  |               |            |        |             | Burst Pwr          | Frame Pwr | Burst Pwr     | Frame Pwr | Burst Pwr          | Frame Pwr | Burst Pwr     | Frame Pwr |
| GPRS/EDGE (GMSK) | CS1           | 1          | 512    | 1850.2      | 29.18              | 20.15     | 29.25         | 20.22     | 28.00              | 18.97     | 28.50         | 19.47     |
|                  |               |            | 661    | 1880.0      | 29.08              | 20.05     |               |           | 27.98              | 18.95     |               |           |
|                  |               |            | 810    | 1909.8      | 29.07              | 20.04     |               |           | 27.87              | 18.84     |               |           |
|                  |               | 2          | 512    | 1850.2      | 26.50              | 20.48     | 26.50         | 20.48     | 25.25              | 19.23     | 25.50         | 19.48     |
|                  |               |            | 661    | 1880.0      | 26.20              | 20.18     |               |           | 25.25              | 19.23     |               |           |
|                  |               |            | 810    | 1909.8      | 26.20              | 20.18     |               |           | 25.25              | 19.23     |               |           |
| EDGE (8PSK)      | MCS5          | 1          | 512    | 1850.2      | 24.02              | 14.99     | 24.25         | 15.22     | 24.02              | 14.99     | 24.25         | 15.22     |
|                  |               |            | 661    | 1880.0      | 24.00              | 14.97     |               |           | 24.00              | 14.97     |               |           |
|                  |               |            | 810    | 1909.8      | 23.96              | 14.93     |               |           | 23.96              | 14.93     |               |           |
|                  |               | 2          | 512    | 1850.2      | 23.25              | 17.23     | 23.25         | 17.23     | 23.25              | 17.23     | 23.25         | 17.23     |
|                  |               |            | 661    | 1880.0      | 23.22              | 17.20     |               |           | 23.22              | 17.20     |               |           |
|                  |               |            | 810    | 1909.8      | 23.23              | 17.21     |               |           | 23.23              | 17.21     |               |           |

**Notes:**

Based on the Tune-up Procedure, GPRS/EDGE (GMSK) mode with 2 time slots for Mode A and Mode B have maximum frame-averaged power.

**GSM1900 Measured Results (ANT3)**

| Mode             | Coding Scheme | Time Slots | Ch No. | Freq. (MHz) | Power Mode A (dBm) |           |               |           | Power Mode B (dBm) |           |               |           |
|------------------|---------------|------------|--------|-------------|--------------------|-----------|---------------|-----------|--------------------|-----------|---------------|-----------|
|                  |               |            |        |             | Measured           |           | Tune-up Limit |           | Measured           |           | Tune-up Limit |           |
|                  |               |            |        |             | Burst Pwr          | Frame Pwr | Burst Pwr     | Frame Pwr | Burst Pwr          | Frame Pwr | Burst Pwr     | Frame Pwr |
| GPRS/EDGE (GMSK) | CS1           | 1          | 512    | 1850.2      | 31.92              | 22.89     | 32.00         | 22.97     | 28.07              | 19.04     | 28.75         | 19.72     |
|                  |               |            | 661    | 1880.0      | 31.86              | 22.83     |               |           | 28.05              | 19.02     |               |           |
|                  |               |            | 810    | 1909.8      | 31.53              | 22.50     |               |           | 27.89              | 18.86     |               |           |
|                  |               | 2          | 512    | 1850.2      | 30.94              | 24.92     | 31.00         | 24.98     | 25.60              | 19.58     | 25.75         | 19.73     |
|                  |               |            | 661    | 1880.0      | 30.84              | 24.82     |               |           | 25.50              | 19.48     |               |           |
|                  |               |            | 810    | 1909.8      | 30.66              | 24.64     |               |           | 25.50              | 19.48     |               |           |
| EDGE (8PSK)      | MCS5          | 1          | 512    | 1850.2      | 26.70              | 17.67     | 27.00         | 17.97     | 26.25              | 17.22     | 27.00         | 17.97     |
|                  |               |            | 661    | 1880.0      | 26.53              | 17.50     |               |           | 26.15              | 17.12     |               |           |
|                  |               |            | 810    | 1909.8      | 27.00              | 17.97     |               |           | 26.00              | 16.97     |               |           |
|                  |               | 2          | 512    | 1850.2      | 25.82              | 19.80     | 26.00         | 19.98     | 25.55              | 19.53     | 25.75         | 19.73     |
|                  |               |            | 661    | 1880.0      | 25.70              | 19.68     |               |           | 25.45              | 19.43     |               |           |
|                  |               |            | 810    | 1909.8      | 25.62              | 19.60     |               |           | 25.37              | 19.35     |               |           |

**Note(s):**

Based on the Tune-up Procedure, GPRS/EDGE (GMSK) mode with 2 time slots for Mode A and Mode B have maximum frame-averaged power.

**GSM1900 Measured Results (ANT4)**

| Mode             | Coding Scheme | Time Slots | Ch No. | Freq. (MHz) | Power Mode A (dBm) |           |               |           | Power Mode B (dBm) |           |               |           |
|------------------|---------------|------------|--------|-------------|--------------------|-----------|---------------|-----------|--------------------|-----------|---------------|-----------|
|                  |               |            |        |             | Measured           |           | Tune-up Limit |           | Measured           |           | Tune-up Limit |           |
|                  |               |            |        |             | Burst Pwr          | Frame Pwr | Burst Pwr     | Frame Pwr | Burst Pwr          | Frame Pwr | Burst Pwr     | Frame Pwr |
| GPRS/EDGE (GMSK) | CS1           | 1          | 512    | 1850.2      | 27.45              | 18.42     | 28.00         | 18.97     | 28.54              | 19.51     | 29.00         | 19.97     |
|                  |               |            | 661    | 1880.0      | 27.52              | 18.49     |               |           | 28.55              | 19.52     |               |           |
|                  |               |            | 810    | 1909.8      | 27.56              | 18.53     |               |           | 28.60              | 19.57     |               |           |
|                  |               | 2          | 512    | 1850.2      | 24.65              | 18.63     | 25.00         | 18.98     | 25.60              | 19.58     | 26.00         | 19.98     |
|                  |               |            | 661    | 1880.0      | 24.71              | 18.69     |               |           | 25.60              | 19.58     |               |           |
|                  |               |            | 810    | 1909.8      | 24.62              | 18.60     |               |           | 25.70              | 19.68     |               |           |
| EDGE (8PSK)      | MCS5          | 1          | 512    | 1850.2      | 24.97              | 15.94     | 25.00         | 15.97     | 24.97              | 15.94     | 25.00         | 15.97     |
|                  |               |            | 661    | 1880.0      | 24.93              | 15.90     |               |           | 24.93              | 15.90     |               |           |
|                  |               |            | 810    | 1909.8      | 24.89              | 15.86     |               |           | 24.89              | 15.86     |               |           |
|                  |               | 2          | 512    | 1850.2      | 23.96              | 17.94     | 24.00         | 17.98     | 23.96              | 17.94     | 24.00         | 17.98     |
|                  |               |            | 661    | 1880.0      | 23.98              | 17.96     |               |           | 23.98              | 17.96     |               |           |
|                  |               |            | 810    | 1909.8      | 24.00              | 17.98     |               |           | 24.00              | 17.98     |               |           |

**Note(s):**

Based on the Tune-up Procedure, GPRS/EDGE (GMSK) mode with 2 time slots for Mode A and Mode B have maximum frame-averaged power.

## 9.2. W-CDMA

### Per KDB 941225 D01 3G SAR Procedures for W-CDMA:

Maximum output power is verified on the high, middle and low channels and using the appropriate 12.2 kbps RMC with TPC (transmit power control) set to all "1's"

### Release 99 Setup Procedures used to establish the test signals

The following tests were completed according to the test requirements outlined in section 5.2 of the 3GPP TS34.121-1. A summary of these settings is illustrated below:

| Mode                   | Subtest                 | Rel99        |
|------------------------|-------------------------|--------------|
| WCDMA General Settings | Loopback Mode           | Test Mode 2  |
|                        | Rel99 RMC               | 12.2kbps RMC |
|                        | Power Control Algorithm | Algorithm2   |
|                        | $\beta_c/\beta_d$       | 8/15         |

### HSDPA Setup Procedures used to establish the test signals

The following 4 Sub-tests were completed according to procedures in table C.10.1.4 of 3GPP TS 34.121-1. A summary of these settings is illustrated below:

**Table C.10.1.4:  $\beta$  values for transmitter characteristics tests with HS-DPCCH**

| Sub-test | $\beta_c$         | $\beta_d$         | $\beta_d$<br>(SF) | $\beta_c/\beta_d$ | $\beta_{HS}$<br>(Note 1,<br>Note 2) | CM (dB)<br>(Note 3) | MPR (dB)<br>(Note 3) |
|----------|-------------------|-------------------|-------------------|-------------------|-------------------------------------|---------------------|----------------------|
| 1        | 2/15              | 15/15             | 64                | 2/15              | 4/15                                | 0.0                 | 0.0                  |
| 2        | 12/15<br>(Note 4) | 15/15<br>(Note 4) | 64                | 12/15<br>(Note 4) | 24/15                               | 1.0                 | 0.0                  |
| 3        | 15/15             | 8/15              | 64                | 15/8              | 30/15                               | 1.5                 | 0.5                  |
| 4        | 15/15             | 4/15              | 64                | 15/4              | 30/15                               | 1.5                 | 0.5                  |

Note 1:  $\Delta_{ACK}$ ,  $\Delta_{NACK}$  and  $\Delta_{CQI} = 30/15$  with  $\beta_{HS} = 30/15 * \beta_c$ .

Note 2: For the HS-DPCCH power mask requirement test in clause 5.2C, 5.7A, and the Error Vector Magnitude (EVM) with HS-DPCCH test in clause 5.13.1A, and HSDPA EVM with phase discontinuity in clause 5.13.1AA,  $\Delta_{ACK}$  and  $\Delta_{NACK} = 30/15$  with  $\beta_{HS} = 30/15 * \beta_c$ , and  $\Delta_{CQI} = 24/15$  with  $\beta_{HS} = 24/15 * \beta_c$ .

Note 3: CM = 1 for  $\beta_c/\beta_d = 12/15$ ,  $\beta_{HS}/\beta_c = 24/15$ . For all other combinations of DPDCCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.

Note 4: For subtest 2 the  $\beta_c/\beta_d$  ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to  $\beta_c = 11/15$  and  $\beta_d = 15/15$ .

### HSUPA Setup Procedures used to establish the test signals

The following 5 Sub-tests were completed according to procedures in table C.11.1.3 of 3GPP TS 34.121-1. A summary of these settings is illustrated below:

**Table C.11.1.3:  $\beta$  values for transmitter characteristics tests with HS-DPCCH and E-DCH**

| Sub-test | $\beta_c$         | $\beta_d$         | $\beta_d$<br>(SF) | $\beta_c/\beta_d$ | $\beta_{HS}$<br>(Note 1) | $\beta_{EC}$ | $\beta_{ES}$<br>(Note 4)<br>(Note 5)         | $\beta_{ES}$<br>(SF) | $\beta_{ES}$<br>(Codes) | CM<br>(dB)<br>(Note 2) | MPR<br>(dB)<br>(Note 2)<br>(Note 6) | AG<br>Index<br>(Note 5) | E-<br>TFCI |
|----------|-------------------|-------------------|-------------------|-------------------|--------------------------|--------------|----------------------------------------------|----------------------|-------------------------|------------------------|-------------------------------------|-------------------------|------------|
| 1        | 11/15<br>(Note 3) | 15/15<br>(Note 3) | 64                | 11/15<br>(Note 3) | 22/15                    | 209/25       | 1309/225                                     | 4                    | 1                       | 1.0                    | 0.0                                 | 20                      | 75         |
| 2        | 6/15              | 15/15             | 64                | 6/15              | 12/15                    | 12/15        | 94/75                                        | 4                    | 1                       | 3.0                    | 2.0                                 | 12                      | 67         |
| 3        | 15/15             | 9/15              | 64                | 15/9              | 30/15                    | 30/15        | $\beta_{ES1}: 47/15$<br>$\beta_{ES2}: 47/15$ | 4                    | 2                       | 2.0                    | 1.0                                 | 15                      | 92         |
| 4        | 2/15              | 15/15             | 64                | 2/15              | 4/15                     | 2/15         | 56/75                                        | 4                    | 1                       | 3.0                    | 2.0                                 | 17                      | 71         |
| 5        | 15/15             | 0                 | -                 | -                 | 5/15                     | 5/15         | 47/15                                        | 4                    | 1                       | 1.0                    | 0.0                                 | 12                      | 67         |

Note 1: For sub-test 1 to 4,  $\Delta_{ACK}$ ,  $\Delta_{NACK}$  and  $\Delta_{CQI} = 30/15$  with  $\beta_{HS} = 30/15 * \beta_c$ . For sub-test 5,  $\Delta_{ACK}$ ,  $\Delta_{NACK}$  and  $\Delta_{CQI} = 5/15$  with  $\beta_{HS} = 5/15 * \beta_c$ .

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

Note 3: For subtest 1 the  $\beta_c/\beta_d$  ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to  $\beta_c = 10/15$  and  $\beta_d = 15/15$ . In case of testing by UE using E-DPCCH Physical Layer category 1, Sub-test 3 is omitted according to TS25.306 Table 5.1g.

Note 4:  $\beta_{ES}$  can not be set directly; it is set by Absolute Grant Value.

Note 5: For subtests 2, 3 and 4, UE may perform E-DPCCH power scaling at max power which could results in slightly smaller MPR values.

**DC-HSDPA Setup Procedures used to establish the test signals**

The following 4 Sub-tests for DC-HSDPA were completed according to procedures in table C08.1.12 of 3GPP TS 34.121-1. A summary of subtest settings is illustrated below:

**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 ( $N_{DP}$ )                                                                                                                   | 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  |
| 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.               |           |       |
| 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. |           |       |

**HSPA+ Setup Procedures used to establish the test signals**

The following 1 Sub-test was completed according to procedures in table C.11.1.4 of 3GPP TS34.121. A summary of these settings is illustrated below:

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

| Sub-test                                                                                                                                                                                                                                                                                               | $\beta_{\text{S}}$<br>(Note 3) | $\beta_{\text{d}}$ | $\beta_{\text{HS}}$<br>(Note 1) | $\beta_{\text{SC}}$ | $\beta_{\text{ed}}$<br>(2xSF2)<br>(Note 4)                   | $\beta_{\text{ed}}$<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               | $\beta_{\text{ed}1}$ : 30/15<br>$\beta_{\text{ed}2}$ : 30/15 | $\beta_{\text{ed}3}$ : 24/15<br>$\beta_{\text{ed}4}$ : 24/15 | 3.5                    | 2.5                     | 14                      | 105                | 105               |
| Note 1: $\Delta\alpha_{\text{MS}}, \Delta\alpha_{\text{MCK}}$ and $\Delta\alpha_{\text{CG}} = 30/15$ with $\beta_{\text{ed}} = 30/15 * \beta_{\text{c}}$ .                                                                                                                                             |                                |                    |                                 |                     |                                                              |                                                              |                        |                         |                         |                    |                   |
| Note 2: CM = 3.5 and the MPR is based on the relative CM difference, MPR = MAX(CM-1,0).                                                                                                                                                                                                                |                                |                    |                                 |                     |                                                              |                                                              |                        |                         |                         |                    |                   |
| Note 3: DPDCH is not configured, therefore the $\beta_{\text{c}}$ is set to 1 and $\beta_{\text{d}} = 0$ by default.                                                                                                                                                                                   |                                |                    |                                 |                     |                                                              |                                                              |                        |                         |                         |                    |                   |
| Note 4: $\beta_{\text{ed}}$ can not be set directly; it is set by Absolute Grant Value.                                                                                                                                                                                                                |                                |                    |                                 |                     |                                                              |                                                              |                        |                         |                         |                    |                   |
| 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. |                                |                    |                                 |                     |                                                              |                                                              |                        |                         |                         |                    |                   |

**Maximum Output Power (Tune-up Limit) for W-CDMA**

SAR measurement is not required for the HSDPA, HSUPA, DC-HSDPA and HSPA+. When primary mode and the adjusted SAR is  $\leq 1.2$  W/kg and secondary mode is  $\leq 1/4$  dB higher than the primary mode

| RF Air interface | Mode     | Maximum Output Power (Tune-up Limit)<br>(dBm) |        |        |        |        |        |        |        |
|------------------|----------|-----------------------------------------------|--------|--------|--------|--------|--------|--------|--------|
|                  |          | ANT1                                          |        | ANT2   |        | ANT3   |        | ANT4   |        |
|                  |          | Mode A                                        | Mode B | Mode A | Mode B | Mode A | Mode B | Mode A | Mode B |
| W-CDMA<br>Band 2 | R99      | 25.70                                         | 21.75  | 20.50  | 18.50  | 25.00  | 19.75  | 18.75  | 20.00  |
|                  | HSDPA    | 25.70                                         | 21.75  | 20.50  | 18.50  | 25.00  | 19.75  | 18.75  | 20.00  |
|                  | HSUPA    | 25.70                                         | 21.75  | 20.50  | 18.50  | 25.00  | 19.75  | 18.75  | 20.00  |
|                  | DC-HSDPA | 25.70                                         | 21.75  | 20.50  | 18.50  | 25.00  | 19.75  | 18.75  | 20.00  |
|                  | HSPA+    | 25.70                                         | 21.75  | 20.50  | 18.50  | 25.00  | 19.75  | 18.75  | 20.00  |
| W-CDMA<br>Band 4 | R99      | 25.70                                         | 18.00  | 22.00  | 20.00  | 25.00  | 21.75  | 21.00  | 22.25  |
|                  | HSDPA    | 25.70                                         | 18.00  | 22.00  | 20.00  | 25.00  | 21.75  | 21.00  | 22.25  |
|                  | HSUPA    | 25.70                                         | 18.00  | 22.00  | 20.00  | 25.00  | 21.75  | 21.00  | 22.25  |
|                  | DC-HSDPA | 25.70                                         | 18.00  | 22.00  | 20.00  | 25.00  | 21.75  | 21.00  | 22.25  |
|                  | HSPA+    | 25.70                                         | 18.00  | 22.00  | 20.00  | 25.00  | 21.75  | 21.00  | 22.25  |
| W-CDMA<br>Band 5 | R99      | 25.70                                         | 25.70  | 24.50  | 24.50  |        |        |        |        |
|                  | HSDPA    | 25.70                                         | 25.70  | 24.50  | 24.50  |        |        |        |        |
|                  | HSUPA    | 25.70                                         | 25.70  | 24.50  | 24.50  |        |        |        |        |
|                  | DC-HSDPA | 25.70                                         | 25.70  | 24.50  | 24.50  |        |        |        |        |
|                  | HSPA+    | 25.70                                         | 25.70  | 24.50  | 24.50  |        |        |        |        |

**W-CDMA Band II Measured Results (ANT1)**

| Mode       |                            | UL Ch No. | Freq.<br>(MHz) | Power Mode A (dBm) |     |               | Power Mode B (dBm) |     |               |
|------------|----------------------------|-----------|----------------|--------------------|-----|---------------|--------------------|-----|---------------|
|            |                            |           |                | Measured Pwr       | MPR | Tune-up Limit | Measured Pwr       | MPR | Tune-up Limit |
| Release 99 | Rel 99<br>(RMC, 12.2 kbps) | 9262      | 1852.4         | 25.69              | N/A | 25.70         | 21.75              | N/A | 21.75         |
|            |                            | 9400      | 1880.0         | 25.56              |     |               | 21.60              |     |               |
|            |                            | 9538      | 1907.6         | 25.47              |     |               | 21.60              |     |               |
| HSDPA      | Subtest 1                  | 9262      | 1852.4         | 25.39              | 0   | 25.70         | 21.49              | 0   | 21.75         |
|            |                            | 9400      | 1880.0         | 25.22              |     |               | 21.27              |     |               |
|            |                            | 9538      | 1907.6         | 25.13              |     |               | 21.17              |     |               |
|            | Subtest 2                  | 9262      | 1852.4         | 25.64              | 0   | 25.70         | 21.47              | 0   | 21.75         |
|            |                            | 9400      | 1880.0         | 25.41              |     |               | 21.25              |     |               |
|            |                            | 9538      | 1907.6         | 25.33              |     |               | 21.14              |     |               |
|            | Subtest 3                  | 9262      | 1852.4         | 25.06              | 0.5 | 25.20         | 21.11              | 0.5 | 21.25         |
|            |                            | 9400      | 1880.0         | 25.20              |     |               | 21.25              |     |               |
|            |                            | 9538      | 1907.6         | 25.09              |     |               | 21.13              |     |               |
|            | Subtest 4                  | 9262      | 1852.4         | 25.11              | 0.5 | 25.20         | 21.18              | 0.5 | 21.25         |
|            |                            | 9400      | 1880.0         | 24.94              |     |               | 21.12              |     |               |
|            |                            | 9538      | 1907.6         | 25.04              |     |               | 21.14              |     |               |
| HSPA       | Subtest 1                  | 9262      | 1852.4         | 25.23              | 0   | 25.70         | 21.41              | 0   | 21.75         |
|            |                            | 9400      | 1880.0         | 25.05              |     |               | 21.20              |     |               |
|            |                            | 9538      | 1907.6         | 25.45              |     |               | 21.14              |     |               |
|            | Subtest 2                  | 9262      | 1852.4         | 23.57              | 2   | 23.70         | 19.41              | 2   | 19.75         |
|            |                            | 9400      | 1880.0         | 23.41              |     |               | 19.73              |     |               |
|            |                            | 9538      | 1907.6         | 23.31              |     |               | 19.63              |     |               |
|            | Subtest 3                  | 9262      | 1852.4         | 24.29              | 1   | 24.70         | 20.42              | 1   | 20.75         |
|            |                            | 9400      | 1880.0         | 24.63              |     |               | 20.20              |     |               |
|            |                            | 9538      | 1907.6         | 24.46              |     |               | 20.11              |     |               |
|            | Subtest 4                  | 9262      | 1852.4         | 23.55              | 2   | 23.70         | 19.37              | 2   | 19.75         |
|            |                            | 9400      | 1880.0         | 23.37              |     |               | 19.20              |     |               |
|            |                            | 9538      | 1907.6         | 23.25              |     |               | 19.13              |     |               |
|            | Subtest 5                  | 9262      | 1852.4         | 25.37              | 0   | 25.70         | 21.45              | 0   | 21.75         |
|            |                            | 9400      | 1880.0         | 25.21              |     |               | 21.21              |     |               |
|            |                            | 9538      | 1907.6         | 25.61              |     |               | 21.14              |     |               |
| DC-HSDPA   | Subtest 1                  | 9262      | 1852.4         | 25.45              | 0   | 25.70         | 21.48              | 0   | 21.75         |
|            |                            | 9400      | 1880.0         | 25.16              |     |               | 21.29              |     |               |
|            |                            | 9538      | 1907.6         | 25.18              |     |               | 21.22              |     |               |
|            | Subtest 2                  | 9262      | 1852.4         | 25.37              | 0   | 25.70         | 21.44              | 0   | 21.75         |
|            |                            | 9400      | 1880.0         | 25.18              |     |               | 21.27              |     |               |
|            |                            | 9538      | 1907.6         | 25.13              |     |               | 21.19              |     |               |
|            | Subtest 3                  | 9262      | 1852.4         | 25.14              | 0.5 | 25.20         | 21.22              | 0.5 | 21.25         |
|            |                            | 9400      | 1880.0         | 25.11              |     |               | 21.02              |     |               |
|            |                            | 9538      | 1907.6         | 25.03              |     |               | 21.16              |     |               |
|            | Subtest 4                  | 9262      | 1852.4         | 25.11              | 0.5 | 25.20         | 21.19              | 0.5 | 21.25         |
|            |                            | 9400      | 1880.0         | 25.03              |     |               | 21.03              |     |               |
|            |                            | 9538      | 1907.6         | 25.13              |     |               | 21.17              |     |               |
| HSPA+      | Subtest 1                  | 9262      | 1852.4         | 23.19              | 2.5 | 23.20         | 19.15              | 2.5 | 19.25         |
|            |                            | 9400      | 1880.0         | 23.06              |     |               | 19.00              |     |               |
|            |                            | 9538      | 1907.6         | 22.97              |     |               | 19.00              |     |               |

**W-CDMA Band II Measured Results (ANT2)**

| Mode       |                            | UL Ch No. | Freq.<br>(MHz) | Power Mode A (dBm) |      |               | Power Mode B (dBm) |      |               |
|------------|----------------------------|-----------|----------------|--------------------|------|---------------|--------------------|------|---------------|
|            |                            |           |                | Measured Pwr       | MPR  | Tune-up Limit | Measured Pwr       | MPR  | Tune-up Limit |
| Release 99 | Rel 99<br>(RMC, 12.2 kbps) | 9262      | 1852.4         | 20.50              | N/A  | 20.50         | 18.25              | N/A  | 18.50         |
|            |                            | 9400      | 1880.0         | 20.50              |      |               | 18.40              |      |               |
|            |                            | 9538      | 1907.6         | 20.50              |      |               | 18.25              |      |               |
| HSDPA      | Subtest 1                  | 9262      | 1852.4         | 20.46              | 0.00 | 20.50         | 17.94              | 0.00 | 18.50         |
|            |                            | 9400      | 1880.0         | 20.37              |      |               | 17.88              |      |               |
|            |                            | 9538      | 1907.6         | 20.25              |      |               | 17.79              |      |               |
|            | Subtest 2                  | 9262      | 1852.4         | 20.40              | 0.00 | 20.50         | 17.91              | 0.00 | 18.50         |
|            |                            | 9400      | 1880.0         | 20.35              |      |               | 17.88              |      |               |
|            |                            | 9538      | 1907.6         | 20.14              |      |               | 17.74              |      |               |
|            | Subtest 3                  | 9262      | 1852.4         | 19.96              | 0.50 | 20.00         | 17.90              | 0.50 | 18.00         |
|            |                            | 9400      | 1880.0         | 19.94              |      |               | 17.85              |      |               |
|            |                            | 9538      | 1907.6         | 19.75              |      |               | 17.69              |      |               |
|            | Subtest 4                  | 9262      | 1852.4         | 19.96              | 0.50 | 20.00         | 17.88              | 0.50 | 18.00         |
|            |                            | 9400      | 1880.0         | 19.88              |      |               | 17.87              |      |               |
|            |                            | 9538      | 1907.6         | 19.73              |      |               | 17.59              |      |               |
| HSUPA      | Subtest 1                  | 9262      | 1852.4         | 20.36              | 0.00 | 20.50         | 17.88              | 0.00 | 18.50         |
|            |                            | 9400      | 1880.0         | 20.35              |      |               | 17.88              |      |               |
|            |                            | 9538      | 1907.6         | 20.17              |      |               | 17.72              |      |               |
|            | Subtest 2                  | 9262      | 1852.4         | 18.29              | 2.00 | 18.50         | 16.17              | 2.00 | 16.50         |
|            |                            | 9400      | 1880.0         | 18.23              |      |               | 16.12              |      |               |
|            |                            | 9538      | 1907.6         | 18.03              |      |               | 15.92              |      |               |
|            | Subtest 3                  | 9262      | 1852.4         | 19.11              | 1.00 | 19.50         | 17.16              | 1.00 | 17.50         |
|            |                            | 9400      | 1880.0         | 19.15              |      |               | 17.11              |      |               |
|            |                            | 9538      | 1907.6         | 18.97              |      |               | 16.95              |      |               |
|            | Subtest 4                  | 9262      | 1852.4         | 18.50              | 2.00 | 18.50         | 16.10              | 2.00 | 16.50         |
|            |                            | 9400      | 1880.0         | 18.49              |      |               | 16.12              |      |               |
|            |                            | 9538      | 1907.6         | 18.31              |      |               | 15.87              |      |               |
|            | Subtest 5                  | 9262      | 1852.4         | 20.37              | 0.00 | 20.50         | 17.90              | 0.00 | 18.50         |
|            |                            | 9400      | 1880.0         | 20.36              |      |               | 17.90              |      |               |
|            |                            | 9538      | 1907.6         | 20.16              |      |               | 17.68              |      |               |
| DC-HSDPA   | Subtest 1                  | 9262      | 1852.4         | 20.40              | 0.00 | 20.50         | 17.96              | 0.00 | 18.50         |
|            |                            | 9400      | 1880.0         | 20.34              |      |               | 17.90              |      |               |
|            |                            | 9538      | 1907.6         | 20.17              |      |               | 17.73              |      |               |
|            | Subtest 2                  | 9262      | 1852.4         | 20.38              | 0.00 | 20.50         | 17.92              | 0.00 | 18.50         |
|            |                            | 9400      | 1880.0         | 20.33              |      |               | 17.87              |      |               |
|            |                            | 9538      | 1907.6         | 20.14              |      |               | 17.73              |      |               |
|            | Subtest 3                  | 9262      | 1852.4         | 19.95              | 0.50 | 20.00         | 17.90              | 0.50 | 18.00         |
|            |                            | 9400      | 1880.0         | 19.90              |      |               | 17.89              |      |               |
|            |                            | 9538      | 1907.6         | 19.75              |      |               | 17.71              |      |               |
|            | Subtest 4                  | 9262      | 1852.4         | 19.98              | 0.50 | 20.00         | 17.84              | 0.50 | 18.00         |
|            |                            | 9400      | 1880.0         | 19.91              |      |               | 17.87              |      |               |
|            |                            | 9538      | 1907.6         | 19.74              |      |               | 17.63              |      |               |
| HSPA+      | Subtest 1                  | 9262      | 1852.4         | 17.38              | 2.50 | 18.00         | 15.96              | 2.50 | 16.00         |
|            |                            | 9400      | 1880.0         | 17.33              |      |               | 15.90              |      |               |
|            |                            | 9538      | 1907.6         | 17.14              |      |               | 15.73              |      |               |

**W-CDMA Band II Measured Results (ANT3)**

| Mode       |                            | UL Ch No. | Freq.<br>(MHz) | Power Mode A (dBm) |     |               | Power Mode B (dBm) |     |               |
|------------|----------------------------|-----------|----------------|--------------------|-----|---------------|--------------------|-----|---------------|
|            |                            |           |                | Measured Pwr       | MPR | Tune-up Limit | Measured Pwr       | MPR | Tune-up Limit |
| Release 99 | Rel 99<br>(RMC, 12.2 kbps) | 9262      | 1852.4         | 24.60              | N/A | 25.00         | 19.70              | N/A | 19.75         |
|            |                            | 9400      | 1880.0         | 24.60              |     |               | 19.70              |     |               |
|            |                            | 9538      | 1907.6         | 24.60              |     |               | 19.60              |     |               |
| HSDPA      | Subtest 1                  | 9262      | 1852.4         | 24.38              | 0   | 25.00         | 19.63              | 0   | 19.75         |
|            |                            | 9400      | 1880.0         | 24.31              |     |               | 19.61              |     |               |
|            |                            | 9538      | 1907.6         | 24.21              |     |               | 19.49              |     |               |
|            | Subtest 2                  | 9262      | 1852.4         | 24.09              | 0   | 25.00         | 19.60              | 0   | 19.75         |
|            |                            | 9400      | 1880.0         | 24.05              |     |               | 19.63              |     |               |
|            |                            | 9538      | 1907.6         | 24.09              |     |               | 19.42              |     |               |
|            | Subtest 3                  | 9262      | 1852.4         | 23.81              | 0.5 | 24.50         | 19.18              | 0.5 | 19.25         |
|            |                            | 9400      | 1880.0         | 23.79              |     |               | 19.19              |     |               |
|            |                            | 9538      | 1907.6         | 23.63              |     |               | 18.99              |     |               |
|            | Subtest 4                  | 9262      | 1852.4         | 23.56              | 0.5 | 24.50         | 19.20              | 0.5 | 19.25         |
|            |                            | 9400      | 1880.0         | 23.55              |     |               | 19.16              |     |               |
|            |                            | 9538      | 1907.6         | 23.57              |     |               | 18.99              |     |               |
| HSPA       | Subtest 1                  | 9262      | 1852.4         | 24.38              | 0   | 25.00         | 19.42              | 0   | 19.75         |
|            |                            | 9400      | 1880.0         | 24.31              |     |               | 19.44              |     |               |
|            |                            | 9538      | 1907.6         | 24.21              |     |               | 19.24              |     |               |
|            | Subtest 2                  | 9262      | 1852.4         | 22.07              | 2   | 23.00         | 17.57              | 2   | 17.75         |
|            |                            | 9400      | 1880.0         | 22.04              |     |               | 17.61              |     |               |
|            |                            | 9538      | 1907.6         | 22.09              |     |               | 17.42              |     |               |
|            | Subtest 3                  | 9262      | 1852.4         | 23.02              | 1   | 24.00         | 18.63              | 1   | 18.75         |
|            |                            | 9400      | 1880.0         | 23.06              |     |               | 18.71              |     |               |
|            |                            | 9538      | 1907.6         | 23.09              |     |               | 18.49              |     |               |
|            | Subtest 4                  | 9262      | 1852.4         | 22.34              | 2   | 23.00         | 17.58              | 2   | 17.75         |
|            |                            | 9400      | 1880.0         | 22.32              |     |               | 17.63              |     |               |
|            |                            | 9538      | 1907.6         | 22.18              |     |               | 17.41              |     |               |
|            | Subtest 5                  | 9262      | 1852.4         | 24.84              | 0   | 25.00         | 19.62              | 0   | 19.75         |
|            |                            | 9400      | 1880.0         | 24.84              |     |               | 19.66              |     |               |
|            |                            | 9538      | 1907.6         | 24.75              |     |               | 19.48              |     |               |
| DC-HSDPA   | Subtest 1                  | 9262      | 1852.4         | 24.40              | 0   | 25.00         | 19.62              | 0   | 19.75         |
|            |                            | 9400      | 1880.0         | 24.36              |     |               | 19.60              |     |               |
|            |                            | 9538      | 1907.6         | 24.19              |     |               | 19.48              |     |               |
|            | Subtest 2                  | 9262      | 1852.4         | 24.30              | 0   | 25.00         | 19.62              | 0   | 19.75         |
|            |                            | 9400      | 1880.0         | 24.33              |     |               | 19.65              |     |               |
|            |                            | 9538      | 1907.6         | 24.21              |     |               | 19.44              |     |               |
|            | Subtest 3                  | 9262      | 1852.4         | 24.09              | 0.5 | 24.50         | 19.23              | 0.5 | 19.25         |
|            |                            | 9400      | 1880.0         | 24.03              |     |               | 19.20              |     |               |
|            |                            | 9538      | 1907.6         | 24.10              |     |               | 19.05              |     |               |
|            | Subtest 4                  | 9262      | 1852.4         | 24.02              | 0.5 | 24.50         | 19.16              | 0.5 | 19.25         |
|            |                            | 9400      | 1880.0         | 24.03              |     |               | 19.20              |     |               |
|            |                            | 9538      | 1907.6         | 23.89              |     |               | 19.05              |     |               |
| HSPA+      | Subtest 1                  | 9262      | 1852.4         | 22.50              | 2.5 | 22.50         | 17.25              | 2.5 | 17.25         |
|            |                            | 9400      | 1880.0         | 22.50              |     |               | 17.25              |     |               |
|            |                            | 9538      | 1907.6         | 22.50              |     |               | 17.25              |     |               |

**W-CDMA Band II Measured Results (ANT4)**

| Mode       |                            | UL Ch No. | Freq.<br>(MHz) | Power Mode A (dBm) |     |               | Power Mode B (dBm) |     |               |
|------------|----------------------------|-----------|----------------|--------------------|-----|---------------|--------------------|-----|---------------|
|            |                            |           |                | Measured Pwr       | MPR | Tune-up Limit | Measured Pwr       | MPR | Tune-up Limit |
| Release 99 | Rel 99<br>(RMC, 12.2 kbps) | 9262      | 1852.4         | 18.60              | N/A | 18.75         | 19.90              | N/A | 20.00         |
|            |                            | 9400      | 1880.0         | 18.70              |     |               | 20.00              |     |               |
|            |                            | 9538      | 1907.6         | 18.75              |     |               | 20.00              |     |               |
| HSDPA      | Subtest 1                  | 9262      | 1852.4         | 18.31              | 0   | 18.75         | 19.60              | 0   | 20.00         |
|            |                            | 9400      | 1880.0         | 18.46              |     |               | 19.79              |     |               |
|            |                            | 9538      | 1907.6         | 18.52              |     |               | 19.81              |     |               |
|            | Subtest 2                  | 9262      | 1852.4         | 18.27              | 0   | 18.75         | 19.54              | 0   | 20.00         |
|            |                            | 9400      | 1880.0         | 18.45              |     |               | 19.76              |     |               |
|            |                            | 9538      | 1907.6         | 18.49              |     |               | 19.78              |     |               |
|            | Subtest 3                  | 9262      | 1852.4         | 18.25              | 0.5 | 18.25         | 19.14              | 0.5 | 19.50         |
|            |                            | 9400      | 1880.0         | 18.14              |     |               | 19.36              |     |               |
|            |                            | 9538      | 1907.6         | 18.16              |     |               | 19.31              |     |               |
|            | Subtest 4                  | 9262      | 1852.4         | 18.24              | 0.5 | 18.25         | 19.15              | 0.5 | 19.50         |
|            |                            | 9400      | 1880.0         | 18.24              |     |               | 19.37              |     |               |
|            |                            | 9538      | 1907.6         | 18.18              |     |               | 19.29              |     |               |
| HSDPA      | Subtest 1                  | 9262      | 1852.4         | 18.22              | 0   | 18.75         | 19.54              | 0   | 20.00         |
|            |                            | 9400      | 1880.0         | 18.50              |     |               | 19.79              |     |               |
|            |                            | 9538      | 1907.6         | 18.47              |     |               | 19.78              |     |               |
|            | Subtest 2                  | 9262      | 1852.4         | 16.47              | 2   | 16.75         | 17.77              | 2   | 18.00         |
|            |                            | 9400      | 1880.0         | 16.69              |     |               | 17.98              |     |               |
|            |                            | 9538      | 1907.6         | 16.65              |     |               | 17.93              |     |               |
|            | Subtest 3                  | 9262      | 1852.4         | 17.23              | 1   | 17.75         | 18.56              | 1   | 19.00         |
|            |                            | 9400      | 1880.0         | 17.48              |     |               | 18.79              |     |               |
|            |                            | 9538      | 1907.6         | 17.46              |     |               | 18.77              |     |               |
|            | Subtest 4                  | 9262      | 1852.4         | 16.47              | 2   | 16.75         | 17.77              | 2   | 18.00         |
|            |                            | 9400      | 1880.0         | 16.67              |     |               | 17.97              |     |               |
|            |                            | 9538      | 1907.6         | 16.61              |     |               | 17.92              |     |               |
|            | Subtest 5                  | 9262      | 1852.4         | 18.30              | 0   | 18.75         | 19.56              | 0   | 20.00         |
|            |                            | 9400      | 1880.0         | 18.57              |     |               | 19.79              |     |               |
|            |                            | 9538      | 1907.6         | 18.49              |     |               | 19.72              |     |               |
| DC-HSDPA   | Subtest 1                  | 9262      | 1852.4         | 18.30              | 0   | 18.75         | 19.59              | 0   | 20.00         |
|            |                            | 9400      | 1880.0         | 18.48              |     |               | 19.81              |     |               |
|            |                            | 9538      | 1907.6         | 18.50              |     |               | 19.76              |     |               |
|            | Subtest 2                  | 9262      | 1852.4         | 18.26              | 0   | 18.75         | 19.52              | 0   | 20.00         |
|            |                            | 9400      | 1880.0         | 18.47              |     |               | 19.74              |     |               |
|            |                            | 9538      | 1907.6         | 18.45              |     |               | 19.71              |     |               |
|            | Subtest 3                  | 9262      | 1852.4         | 17.47              | 0.5 | 18.25         | 19.11              | 0.5 | 19.50         |
|            |                            | 9400      | 1880.0         | 17.70              |     |               | 19.33              |     |               |
|            |                            | 9538      | 1907.6         | 17.65              |     |               | 19.30              |     |               |
|            | Subtest 4                  | 9262      | 1852.4         | 17.48              | 0.5 | 18.25         | 19.10              | 0.5 | 19.50         |
|            |                            | 9400      | 1880.0         | 17.68              |     |               | 19.33              |     |               |
|            |                            | 9538      | 1907.6         | 17.66              |     |               | 19.28              |     |               |
| HSPA+      | Subtest 1                  | 9262      | 1852.4         | 15.92              | 2.5 | 16.25         | 17.16              | 2.5 | 17.50         |
|            |                            | 9400      | 1880.0         | 16.12              |     |               | 17.41              |     |               |
|            |                            | 9538      | 1907.6         | 16.08              |     |               | 17.36              |     |               |

**W-CDMA Band IV Measured Results (ANT1)**

| Mode       |                            | UL Ch No. | Freq.<br>(MHz) | Power Mode A (dBm) |     |               | Power Mode B (dBm) |     |               |
|------------|----------------------------|-----------|----------------|--------------------|-----|---------------|--------------------|-----|---------------|
|            |                            |           |                | Measured Pwr       | MPR | Tune-up Limit | Measured Pwr       | MPR | Tune-up Limit |
| Release 99 | Rel 99<br>(RMC, 12.2 kbps) | 1312      | 1712.4         | 25.52              | N/A | 25.70         | 18.00              | N/A | 18.00         |
|            |                            | 1413      | 1732.6         | 25.61              |     |               | 18.00              |     |               |
|            |                            | 1513      | 1752.6         | 25.66              |     |               | 18.00              |     |               |
| HSDPA      | Subtest 1                  | 1312      | 1712.4         | 25.49              | 0   | 25.70         | 17.28              | 0   | 18.00         |
|            |                            | 1413      | 1732.6         | 25.57              |     |               | 17.37              |     |               |
|            |                            | 1513      | 1752.6         | 25.53              |     |               | 17.30              |     |               |
|            | Subtest 2                  | 1312      | 1712.4         | 25.26              | 0   | 25.70         | 17.28              | 0   | 18.00         |
|            |                            | 1413      | 1732.6         | 25.26              |     |               | 17.33              |     |               |
|            |                            | 1513      | 1752.6         | 25.25              |     |               | 17.32              |     |               |
|            | Subtest 3                  | 1312      | 1712.4         | 24.50              | 0.5 | 25.20         | 17.25              | 0.5 | 17.50         |
|            |                            | 1413      | 1732.6         | 24.56              |     |               | 17.39              |     |               |
|            |                            | 1513      | 1752.6         | 24.51              |     |               | 17.34              |     |               |
|            | Subtest 4                  | 1312      | 1712.4         | 25.00              | 0.5 | 25.20         | 17.27              | 0.5 | 17.50         |
|            |                            | 1413      | 1732.6         | 25.06              |     |               | 17.39              |     |               |
|            |                            | 1513      | 1752.6         | 25.01              |     |               | 17.31              |     |               |
| HSPA       | Subtest 1                  | 1312      | 1712.4         | 25.50              | 0   | 25.70         | 17.26              | 0   | 18.00         |
|            |                            | 1413      | 1732.6         | 25.56              |     |               | 17.29              |     |               |
|            |                            | 1513      | 1752.6         | 25.51              |     |               | 17.31              |     |               |
|            | Subtest 2                  | 1312      | 1712.4         | 23.22              | 2   | 23.70         | 15.80              | 2   | 16.00         |
|            |                            | 1413      | 1732.6         | 23.40              |     |               | 15.76              |     |               |
|            |                            | 1513      | 1752.6         | 23.23              |     |               | 15.76              |     |               |
|            | Subtest 3                  | 1312      | 1712.4         | 24.39              | 1   | 24.70         | 16.76              | 1   | 17.00         |
|            |                            | 1413      | 1732.6         | 24.51              |     |               | 16.81              |     |               |
|            |                            | 1513      | 1752.6         | 24.41              |     |               | 16.80              |     |               |
|            | Subtest 4                  | 1312      | 1712.4         | 23.51              | 2   | 23.70         | 15.85              | 2   | 16.00         |
|            |                            | 1413      | 1732.6         | 23.64              |     |               | 15.84              |     |               |
|            |                            | 1513      | 1752.6         | 23.51              |     |               | 15.84              |     |               |
|            | Subtest 5                  | 1312      | 1712.4         | 25.19              | 0   | 25.70         | 17.84              | 0   | 18.00         |
|            |                            | 1413      | 1732.6         | 25.30              |     |               | 17.37              |     |               |
|            |                            | 1513      | 1752.6         | 25.21              |     |               | 17.36              |     |               |
| DC-HSDPA   | Subtest 1                  | 1312      | 1712.4         | 25.03              | 0   | 25.70         | 17.21              | 0   | 18.00         |
|            |                            | 1413      | 1732.6         | 25.08              |     |               | 17.31              |     |               |
|            |                            | 1513      | 1752.6         | 25.04              |     |               | 17.30              |     |               |
|            | Subtest 2                  | 1312      | 1712.4         | 25.01              | 0   | 25.70         | 17.28              | 0   | 18.00         |
|            |                            | 1413      | 1732.6         | 25.05              |     |               | 17.36              |     |               |
|            |                            | 1513      | 1752.6         | 25.47              |     |               | 17.29              |     |               |
|            | Subtest 3                  | 1312      | 1712.4         | 25.09              | 0.5 | 25.20         | 17.35              | 0.5 | 17.50         |
|            |                            | 1413      | 1732.6         | 25.12              |     |               | 17.37              |     |               |
|            |                            | 1513      | 1752.6         | 25.04              |     |               | 17.30              |     |               |
|            | Subtest 4                  | 1312      | 1712.4         | 25.03              | 0.5 | 25.20         | 17.28              | 0.5 | 17.50         |
|            |                            | 1413      | 1732.6         | 25.13              |     |               | 17.36              |     |               |
|            |                            | 1513      | 1752.6         | 25.01              |     |               | 17.31              |     |               |
| HSPA+      | Subtest 1                  | 1312      | 1712.4         | 25.02              | 2.5 | 23.20         | 15.25              | 2.5 | 15.50         |
|            |                            | 1413      | 1732.6         | 25.07              |     |               | 15.35              |     |               |
|            |                            | 1513      | 1752.6         | 25.01              |     |               | 15.29              |     |               |

**W-CDMA Band IV Measured Results (ANT2)**

| Mode       |                            | UL Ch No. | Freq.<br>(MHz) | Power Mode A (dBm) |      |               | Power Mode B (dBm) |      |               |
|------------|----------------------------|-----------|----------------|--------------------|------|---------------|--------------------|------|---------------|
|            |                            |           |                | Measured Pwr       | MPR  | Tune-up Limit | Measured Pwr       | MPR  | Tune-up Limit |
| Release 99 | Rel 99<br>(RMC, 12.2 kbps) | 1312      | 1712.4         | 21.65              | N/A  | 22.00         | 20.00              | N/A  | 20.00         |
|            |                            | 1413      | 1732.6         | 21.55              |      |               | 19.80              |      |               |
|            |                            | 1513      | 1752.6         | 21.65              |      |               | 19.70              |      |               |
| HSDPA      | Subtest 1                  | 1312      | 1712.4         | 21.88              | 0.00 | 22.00         | 19.69              | 0.00 | 20.00         |
|            |                            | 1413      | 1732.6         | 21.73              |      |               | 19.56              |      |               |
|            |                            | 1513      | 1752.6         | 21.73              |      |               | 19.50              |      |               |
|            | Subtest 2                  | 1312      | 1712.4         | 21.87              | 0.00 | 22.00         | 19.63              | 0.00 | 20.00         |
|            |                            | 1413      | 1732.6         | 21.75              |      |               | 19.64              |      |               |
|            |                            | 1513      | 1752.6         | 21.69              |      |               | 19.56              |      |               |
|            | Subtest 3                  | 1312      | 1712.4         | 21.41              | 0.50 | 21.50         | 19.45              | 0.50 | 19.50         |
|            |                            | 1413      | 1732.6         | 21.43              |      |               | 19.46              |      |               |
|            |                            | 1513      | 1752.6         | 21.44              |      |               | 19.47              |      |               |
|            | Subtest 4                  | 1312      | 1712.4         | 21.33              | 0.50 | 21.50         | 19.46              | 0.50 | 19.50         |
|            |                            | 1413      | 1732.6         | 21.23              |      |               | 19.46              |      |               |
|            |                            | 1513      | 1752.6         | 21.18              |      |               | 19.45              |      |               |
| HSUPA      | Subtest 1                  | 1312      | 1712.4         | 21.83              | 0.00 | 22.00         | 19.65              | 0.00 | 20.00         |
|            |                            | 1413      | 1732.6         | 21.79              |      |               | 19.60              |      |               |
|            |                            | 1513      | 1752.6         | 21.75              |      |               | 19.54              |      |               |
|            | Subtest 2                  | 1312      | 1712.4         | 19.90              | 2.00 | 20.00         | 17.65              | 2.00 | 18.00         |
|            |                            | 1413      | 1732.6         | 19.87              |      |               | 17.64              |      |               |
|            |                            | 1513      | 1752.6         | 19.80              |      |               | 17.62              |      |               |
|            | Subtest 3                  | 1312      | 1712.4         | 20.62              | 1.00 | 21.00         | 18.66              | 1.00 | 19.00         |
|            |                            | 1413      | 1732.6         | 20.56              |      |               | 18.61              |      |               |
|            |                            | 1513      | 1752.6         | 20.50              |      |               | 18.62              |      |               |
|            | Subtest 4                  | 1312      | 1712.4         | 19.91              | 2.00 | 20.00         | 17.64              | 2.00 | 18.00         |
|            |                            | 1413      | 1732.6         | 19.98              |      |               | 17.64              |      |               |
|            |                            | 1513      | 1752.6         | 19.95              |      |               | 17.63              |      |               |
|            | Subtest 5                  | 1312      | 1712.4         | 21.59              | 0.00 | 22.00         | 19.70              | 0.00 | 20.00         |
|            |                            | 1413      | 1732.6         | 21.57              |      |               | 19.66              |      |               |
|            |                            | 1513      | 1752.6         | 21.47              |      |               | 19.59              |      |               |
| DC-HSDPA   | Subtest 1                  | 1312      | 1712.4         | 21.88              | 0.00 | 22.00         | 19.62              | 0.00 | 20.00         |
|            |                            | 1413      | 1732.6         | 21.72              |      |               | 19.54              |      |               |
|            |                            | 1513      | 1752.6         | 21.69              |      |               | 19.48              |      |               |
|            | Subtest 2                  | 1312      | 1712.4         | 21.84              | 0.00 | 22.00         | 19.64              | 0.00 | 20.00         |
|            |                            | 1413      | 1732.6         | 21.70              |      |               | 19.55              |      |               |
|            |                            | 1513      | 1752.6         | 21.71              |      |               | 19.52              |      |               |
|            | Subtest 3                  | 1312      | 1712.4         | 21.47              | 0.50 | 21.50         | 19.48              | 0.50 | 19.50         |
|            |                            | 1413      | 1732.6         | 21.44              |      |               | 19.49              |      |               |
|            |                            | 1513      | 1752.6         | 21.44              |      |               | 19.44              |      |               |
|            | Subtest 4                  | 1312      | 1712.4         | 21.44              | 0.50 | 21.50         | 19.48              | 0.50 | 19.50         |
|            |                            | 1413      | 1732.6         | 21.44              |      |               | 19.41              |      |               |
|            |                            | 1513      | 1752.6         | 21.40              |      |               | 19.43              |      |               |
| HSPA+      | Subtest 1                  | 1312      | 1712.4         | 19.47              | 2.50 | 19.50         | 17.46              | 2.50 | 17.50         |
|            |                            | 1413      | 1732.6         | 19.44              |      |               | 17.46              |      |               |
|            |                            | 1513      | 1752.6         | 19.44              |      |               | 17.45              |      |               |

**W-CDMA Band IV Measured Results (ANT3)**

| Mode       |                            | UL Ch No. | Freq.<br>(MHz) | Power Mode A (dBm) |     |               | Power Mode B (dBm) |     |               |
|------------|----------------------------|-----------|----------------|--------------------|-----|---------------|--------------------|-----|---------------|
|            |                            |           |                | Measured Pwr       | MPR | Tune-up Limit | Measured Pwr       | MPR | Tune-up Limit |
| Release 99 | Rel 99<br>(RMC, 12.2 kbps) | 1312      | 1712.4         | 24.90              | N/A | 25.00         | 21.50              | N/A | 21.75         |
|            |                            | 1413      | 1732.6         | 24.78              |     |               | 21.70              |     |               |
|            |                            | 1513      | 1752.6         | 24.73              |     |               | 21.70              |     |               |
| HSDPA      | Subtest 1                  | 1312      | 1712.4         | 24.86              | 0   | 25.00         | 21.60              | 0   | 21.75         |
|            |                            | 1413      | 1732.6         | 24.73              |     |               | 21.53              |     |               |
|            |                            | 1513      | 1752.6         | 24.73              |     |               | 21.49              |     |               |
|            | Subtest 2                  | 1312      | 1712.4         | 24.58              | 0   | 25.00         | 21.61              | 0   | 21.75         |
|            |                            | 1413      | 1732.6         | 24.48              |     |               | 21.57              |     |               |
|            |                            | 1513      | 1752.6         | 24.46              |     |               | 21.50              |     |               |
|            | Subtest 3                  | 1312      | 1712.4         | 24.34              | 0.5 | 24.50         | 21.20              | 0.5 | 21.25         |
|            |                            | 1413      | 1732.6         | 24.26              |     |               | 21.18              |     |               |
|            |                            | 1513      | 1752.6         | 24.24              |     |               | 21.09              |     |               |
|            | Subtest 4                  | 1312      | 1712.4         | 24.04              | 0.5 | 24.50         | 21.21              | 0.5 | 21.25         |
|            |                            | 1413      | 1732.6         | 23.97              |     |               | 21.17              |     |               |
|            |                            | 1513      | 1752.6         | 23.97              |     |               | 21.08              |     |               |
| HSUPA      | Subtest 1                  | 1312      | 1712.4         | 24.38              | 0   | 25.00         | 21.41              | 0   | 21.75         |
|            |                            | 1413      | 1732.6         | 24.31              |     |               | 21.35              |     |               |
|            |                            | 1513      | 1752.6         | 24.30              |     |               | 21.29              |     |               |
|            | Subtest 2                  | 1312      | 1712.4         | 22.57              | 2   | 23.00         | 19.56              | 2   | 19.75         |
|            |                            | 1413      | 1732.6         | 22.50              |     |               | 19.49              |     |               |
|            |                            | 1513      | 1752.6         | 22.45              |     |               | 19.46              |     |               |
|            | Subtest 3                  | 1312      | 1712.4         | 23.44              | 1   | 24.00         | 20.66              | 1   | 20.75         |
|            |                            | 1413      | 1732.6         | 23.36              |     |               | 20.62              |     |               |
|            |                            | 1513      | 1752.6         | 23.35              |     |               | 20.58              |     |               |
|            | Subtest 4                  | 1312      | 1712.4         | 22.81              | 2   | 23.00         | 19.38              | 2   | 19.75         |
|            |                            | 1413      | 1732.6         | 22.80              |     |               | 19.35              |     |               |
|            |                            | 1513      | 1752.6         | 22.76              |     |               | 19.28              |     |               |
|            | Subtest 5                  | 1312      | 1712.4         | 24.37              | 0   | 25.00         | 21.59              | 0   | 21.75         |
|            |                            | 1413      | 1732.6         | 24.28              |     |               | 21.54              |     |               |
|            |                            | 1513      | 1752.6         | 24.29              |     |               | 21.52              |     |               |
| DC-HSDPA   | Subtest 1                  | 1312      | 1712.4         | 24.90              | 0   | 25.00         | 21.59              | 0   | 21.75         |
|            |                            | 1413      | 1732.6         | 24.80              |     |               | 21.51              |     |               |
|            |                            | 1513      | 1752.6         | 24.71              |     |               | 21.40              |     |               |
|            | Subtest 2                  | 1312      | 1712.4         | 24.85              | 0   | 25.00         | 21.28              | 0   | 21.75         |
|            |                            | 1413      | 1732.6         | 24.73              |     |               | 21.25              |     |               |
|            |                            | 1513      | 1752.6         | 24.75              |     |               | 21.17              |     |               |
|            | Subtest 3                  | 1312      | 1712.4         | 24.44              | 0.5 | 24.50         | 21.19              | 0.5 | 21.25         |
|            |                            | 1413      | 1732.6         | 24.45              |     |               | 21.17              |     |               |
|            |                            | 1513      | 1752.6         | 24.46              |     |               | 21.11              |     |               |
|            | Subtest 4                  | 1312      | 1712.4         | 24.40              | 0.5 | 24.50         | 21.23              | 0.5 | 21.25         |
|            |                            | 1413      | 1732.6         | 24.48              |     |               | 21.18              |     |               |
|            |                            | 1513      | 1752.6         | 24.46              |     |               | 21.14              |     |               |
| HSPA+      | Subtest 1                  | 1312      | 1712.4         | 21.90              | 2.5 | 22.50         | 19.19              | 2.5 | 19.25         |
|            |                            | 1413      | 1732.6         | 21.78              |     |               | 19.17              |     |               |
|            |                            | 1513      | 1752.6         | 21.73              |     |               | 19.11              |     |               |

**W-CDMA Band IV Measured Results (ANT4)**

| Mode       |                            | UL Ch No. | Freq.<br>(MHz) | Power Mode A (dBm) |     |               | Power Mode B (dBm) |     |               |
|------------|----------------------------|-----------|----------------|--------------------|-----|---------------|--------------------|-----|---------------|
|            |                            |           |                | Measured Pwr       | MPR | Tune-up Limit | Measured Pwr       | MPR | Tune-up Limit |
| Release 99 | Rel 99<br>(RMC, 12.2 kbps) | 1312      | 1712.4         | 20.65              | N/A | 21.00         | 21.85              | N/A | 22.25         |
|            |                            | 1413      | 1732.6         | 20.75              |     |               | 21.95              |     |               |
|            |                            | 1513      | 1752.6         | 20.95              |     |               | 22.05              |     |               |
| HSDPA      | Subtest 1                  | 1312      | 1712.4         | 20.72              | 0   | 21.00         | 22.16              | 0   | 22.25         |
|            |                            | 1413      | 1732.6         | 20.75              |     |               | 22.18              |     |               |
|            |                            | 1513      | 1752.6         | 20.69              |     |               | 22.12              |     |               |
|            | Subtest 2                  | 1312      | 1712.4         | 20.48              | 0   | 21.00         | 21.57              | 0   | 22.25         |
|            |                            | 1413      | 1732.6         | 20.47              |     |               | 21.60              |     |               |
|            |                            | 1513      | 1752.6         | 20.50              |     |               | 21.55              |     |               |
|            | Subtest 3                  | 1312      | 1712.4         | 20.26              | 0.5 | 20.50         | 21.67              | 0.5 | 21.75         |
|            |                            | 1413      | 1732.6         | 20.24              |     |               | 21.72              |     |               |
|            |                            | 1513      | 1752.6         | 20.25              |     |               | 21.66              |     |               |
|            | Subtest 4                  | 1312      | 1712.4         | 19.99              | 0.5 | 20.50         | 21.12              | 0.5 | 21.75         |
|            |                            | 1413      | 1732.6         | 20.00              |     |               | 21.14              |     |               |
|            |                            | 1513      | 1752.6         | 20.02              |     |               | 21.07              |     |               |
| HSUPA      | Subtest 1                  | 1312      | 1712.4         | 20.46              | 0   | 21.00         | 21.52              | 0   | 22.25         |
|            |                            | 1413      | 1732.6         | 20.53              |     |               | 21.60              |     |               |
|            |                            | 1513      | 1752.6         | 20.54              |     |               | 21.60              |     |               |
|            | Subtest 2                  | 1312      | 1712.4         | 18.48              | 2   | 19.00         | 19.62              | 2   | 20.25         |
|            |                            | 1413      | 1732.6         | 18.55              |     |               | 19.62              |     |               |
|            |                            | 1513      | 1752.6         | 18.56              |     |               | 19.65              |     |               |
|            | Subtest 3                  | 1312      | 1712.4         | 19.98              | 1   | 20.00         | 21.13              | 1   | 21.25         |
|            |                            | 1413      | 1732.6         | 19.34              |     |               | 21.18              |     |               |
|            |                            | 1513      | 1752.6         | 19.35              |     |               | 21.17              |     |               |
|            | Subtest 4                  | 1312      | 1712.4         | 18.79              | 2   | 19.00         | 19.86              | 2   | 20.25         |
|            |                            | 1413      | 1732.6         | 18.81              |     |               | 19.96              |     |               |
|            |                            | 1513      | 1752.6         | 18.82              |     |               | 19.91              |     |               |
|            | Subtest 5                  | 1312      | 1712.4         | 20.98              | 0   | 21.00         | 22.11              | 0   | 22.25         |
|            |                            | 1413      | 1732.6         | 20.30              |     |               | 22.14              |     |               |
|            |                            | 1513      | 1752.6         | 20.31              |     |               | 22.13              |     |               |
| DC-HSDPA   | Subtest 1                  | 1312      | 1712.4         | 20.69              | 0   | 21.00         | 22.10              | 0   | 22.25         |
|            |                            | 1413      | 1732.6         | 20.64              |     |               | 22.01              |     |               |
|            |                            | 1513      | 1752.6         | 20.65              |     |               | 21.98              |     |               |
|            | Subtest 2                  | 1312      | 1712.4         | 20.37              | 0   | 21.00         | 21.98              | 0   | 22.25         |
|            |                            | 1413      | 1732.6         | 20.39              |     |               | 21.67              |     |               |
|            |                            | 1513      | 1752.6         | 20.41              |     |               | 21.65              |     |               |
|            | Subtest 3                  | 1312      | 1712.4         | 20.04              | 0.5 | 20.50         | 21.75              | 0.5 | 21.75         |
|            |                            | 1413      | 1732.6         | 20.02              |     |               | 21.36              |     |               |
|            |                            | 1513      | 1752.6         | 20.07              |     |               | 21.31              |     |               |
|            | Subtest 4                  | 1312      | 1712.4         | 20.50              | 0.5 | 20.50         | 21.42              | 0.5 | 21.75         |
|            |                            | 1413      | 1732.6         | 20.50              |     |               | 21.65              |     |               |
|            |                            | 1513      | 1752.6         | 20.50              |     |               | 21.73              |     |               |
| HSPA+      | Subtest 1                  | 1312      | 1712.4         | 18.45              | 2.5 | 18.50         | 19.79              | 2.5 | 19.75         |
|            |                            | 1413      | 1732.6         | 18.43              |     |               | 19.88              |     |               |
|            |                            | 1513      | 1752.6         | 18.40              |     |               | 19.81              |     |               |

**W-CDMA Band V Measured Results (ANT1)**

| Mode       |                            | UL Ch No. | Freq.<br>(MHz) | Power Mode A (dBm) |     |               | Power Mode B (dBm) |     |               |
|------------|----------------------------|-----------|----------------|--------------------|-----|---------------|--------------------|-----|---------------|
|            |                            |           |                | Measured Pwr       | MPR | Tune-up Limit | Measured Pwr       | MPR | Tune-up Limit |
| Release 99 | Rel 99<br>(RMC, 12.2 kbps) | 4132      | 826.4          | 25.20              | N/A | 25.70         | 25.20              | N/A | 25.70         |
|            |                            | 4183      | 836.6          | 25.20              |     |               | 25.20              |     |               |
|            |                            | 4233      | 846.6          | 25.20              |     |               | 25.20              |     |               |
| HSDPA      | Subtest 1                  | 4132      | 826.4          | 25.25              | 0   | 25.70         | 25.25              | 0   | 25.70         |
|            |                            | 4183      | 836.6          | 25.21              |     |               | 25.21              |     |               |
|            |                            | 4233      | 846.6          | 25.24              |     |               | 25.24              |     |               |
|            | Subtest 2                  | 4132      | 826.4          | 25.00              | 0   | 25.70         | 25.00              | 0   | 25.70         |
|            |                            | 4183      | 836.6          | 25.00              |     |               | 25.00              |     |               |
|            |                            | 4233      | 846.6          | 25.01              |     |               | 25.01              |     |               |
|            | Subtest 3                  | 4132      | 826.4          | 25.02              | 0.5 | 25.20         | 25.02              | 0.5 | 25.20         |
|            |                            | 4183      | 836.6          | 25.04              |     |               | 25.04              |     |               |
|            |                            | 4233      | 846.6          | 25.01              |     |               | 25.01              |     |               |
|            | Subtest 4                  | 4132      | 826.4          | 25.07              | 0.5 | 25.20         | 25.07              | 0.5 | 25.20         |
|            |                            | 4183      | 836.6          | 25.08              |     |               | 25.08              |     |               |
|            |                            | 4233      | 846.6          | 25.05              |     |               | 25.05              |     |               |
| HSPA       | Subtest 1                  | 4132      | 826.4          | 25.17              | 0   | 25.70         | 25.17              | 0   | 25.70         |
|            |                            | 4183      | 836.6          | 25.18              |     |               | 25.18              |     |               |
|            |                            | 4233      | 846.6          | 25.15              |     |               | 25.15              |     |               |
|            | Subtest 2                  | 4132      | 826.4          | 23.24              | 2   | 23.70         | 23.24              | 2   | 23.70         |
|            |                            | 4183      | 836.6          | 23.27              |     |               | 23.27              |     |               |
|            |                            | 4233      | 846.6          | 23.28              |     |               | 23.28              |     |               |
|            | Subtest 3                  | 4132      | 826.4          | 24.10              | 1   | 24.70         | 24.10              | 1   | 24.70         |
|            |                            | 4183      | 836.6          | 24.19              |     |               | 24.19              |     |               |
|            |                            | 4233      | 846.6          | 24.00              |     |               | 24.00              |     |               |
|            | Subtest 4                  | 4132      | 826.4          | 23.68              | 2   | 23.70         | 23.68              | 2   | 23.70         |
|            |                            | 4183      | 836.6          | 23.20              |     |               | 23.20              |     |               |
|            |                            | 4233      | 846.6          | 23.24              |     |               | 23.24              |     |               |
|            | Subtest 5                  | 4132      | 826.4          | 25.26              | 0   | 25.70         | 25.26              | 0   | 25.70         |
|            |                            | 4183      | 836.6          | 25.25              |     |               | 25.25              |     |               |
|            |                            | 4233      | 846.6          | 25.21              |     |               | 25.21              |     |               |
| DC-HSDPA   | Subtest 1                  | 4132      | 826.4          | 25.23              | 0   | 25.70         | 25.23              | 0   | 25.70         |
|            |                            | 4183      | 836.6          | 25.22              |     |               | 25.22              |     |               |
|            |                            | 4233      | 846.6          | 25.24              |     |               | 25.24              |     |               |
|            | Subtest 2                  | 4132      | 826.4          | 25.21              | 0   | 25.70         | 25.21              | 0   | 25.70         |
|            |                            | 4183      | 836.6          | 25.28              |     |               | 25.28              |     |               |
|            |                            | 4233      | 846.6          | 25.28              |     |               | 25.28              |     |               |
|            | Subtest 3                  | 4132      | 826.4          | 25.00              | 0.5 | 25.20         | 25.00              | 0.5 | 25.20         |
|            |                            | 4183      | 836.6          | 25.02              |     |               | 25.02              |     |               |
|            |                            | 4233      | 846.6          | 25.03              |     |               | 25.03              |     |               |
|            | Subtest 4                  | 4132      | 826.4          | 25.18              | 0.5 | 25.20         | 25.18              | 0.5 | 25.20         |
|            |                            | 4183      | 836.6          | 25.15              |     |               | 25.15              |     |               |
|            |                            | 4233      | 846.6          | 25.19              |     |               | 25.19              |     |               |
| HSPA+      | Subtest 1                  | 4132      | 826.4          | 23.10              | 2.5 | 23.20         | 23.10              | 2.5 | 23.20         |
|            |                            | 4183      | 836.6          | 23.10              |     |               | 23.10              |     |               |
|            |                            | 4233      | 846.6          | 23.10              |     |               | 23.10              |     |               |

**W-CDMA Band V Measured Results (ANT2)**

| Mode       |                            | UL Ch No. | Freq.<br>(MHz) | Power Mode A (dBm) |      |               | Power Mode B (dBm) |      |               |
|------------|----------------------------|-----------|----------------|--------------------|------|---------------|--------------------|------|---------------|
|            |                            |           |                | Measured Pwr       | MPR  | Tune-up Limit | Measured Pwr       | MPR  | Tune-up Limit |
| Release 99 | Rel 99<br>(RMC, 12.2 kbps) | 4132      | 826.4          | 24.05              | N/A  | 24.50         | 24.05              | N/A  | 24.50         |
|            |                            | 4183      | 836.6          | 24.11              |      |               | 24.11              |      |               |
|            |                            | 4233      | 846.6          | 24.10              |      |               | 24.10              |      |               |
| HSDPA      | Subtest 1                  | 4132      | 826.4          | 23.88              | 0.00 | 24.50         | 23.88              | 0.00 | 24.50         |
|            |                            | 4183      | 836.6          | 23.85              |      |               | 23.85              |      |               |
|            |                            | 4233      | 846.6          | 23.92              |      |               | 23.92              |      |               |
|            | Subtest 2                  | 4132      | 826.4          | 23.53              | 0.00 | 24.50         | 23.53              | 0.00 | 24.50         |
|            |                            | 4183      | 836.6          | 23.56              |      |               | 23.56              |      |               |
|            |                            | 4233      | 846.6          | 23.58              |      |               | 23.58              |      |               |
|            | Subtest 3                  | 4132      | 826.4          | 23.25              | 0.50 | 24.00         | 23.25              | 0.50 | 24.00         |
|            |                            | 4183      | 836.6          | 23.29              |      |               | 23.29              |      |               |
|            |                            | 4233      | 846.6          | 23.29              |      |               | 23.29              |      |               |
|            | Subtest 4                  | 4132      | 826.4          | 23.95              | 0.50 | 24.00         | 23.95              | 0.50 | 24.00         |
|            |                            | 4183      | 836.6          | 23.94              |      |               | 23.94              |      |               |
|            |                            | 4233      | 846.6          | 24.00              |      |               | 24.00              |      |               |
| HSUPA      | Subtest 1                  | 4132      | 826.4          | 23.40              | 0.00 | 24.50         | 23.40              | 0.00 | 24.50         |
|            |                            | 4183      | 836.6          | 23.41              |      |               | 23.41              |      |               |
|            |                            | 4233      | 846.6          | 23.51              |      |               | 23.51              |      |               |
|            | Subtest 2                  | 4132      | 826.4          | 22.44              | 2.00 | 22.50         | 22.44              | 2.00 | 22.50         |
|            |                            | 4183      | 836.6          | 22.46              |      |               | 22.46              |      |               |
|            |                            | 4233      | 846.6          | 22.47              |      |               | 22.47              |      |               |
|            | Subtest 3                  | 4132      | 826.4          | 23.40              | 1.00 | 23.50         | 23.40              | 1.00 | 23.50         |
|            |                            | 4183      | 836.6          | 23.43              |      |               | 23.43              |      |               |
|            |                            | 4233      | 846.6          | 23.48              |      |               | 23.48              |      |               |
|            | Subtest 4                  | 4132      | 826.4          | 22.47              | 2.00 | 22.50         | 22.47              | 2.00 | 22.50         |
|            |                            | 4183      | 836.6          | 22.45              |      |               | 22.45              |      |               |
|            |                            | 4233      | 846.6          | 22.48              |      |               | 22.48              |      |               |
|            | Subtest 5                  | 4132      | 826.4          | 24.34              | 0.00 | 24.50         | 24.34              | 0.00 | 24.50         |
|            |                            | 4183      | 836.6          | 24.36              |      |               | 24.36              |      |               |
|            |                            | 4233      | 846.6          | 24.41              |      |               | 24.41              |      |               |
| DC-HSDPA   | Subtest 1                  | 4132      | 826.4          | 24.50              | 0.00 | 24.50         | 24.50              | 0.00 | 24.50         |
|            |                            | 4183      | 836.6          | 24.43              |      |               | 24.43              |      |               |
|            |                            | 4233      | 846.6          | 24.42              |      |               | 24.42              |      |               |
|            | Subtest 2                  | 4132      | 826.4          | 24.49              | 0.00 | 24.50         | 24.49              | 0.00 | 24.50         |
|            |                            | 4183      | 836.6          | 24.41              |      |               | 24.41              |      |               |
|            |                            | 4233      | 846.6          | 24.43              |      |               | 24.43              |      |               |
|            | Subtest 3                  | 4132      | 826.4          | 23.52              | 0.50 | 24.00         | 23.52              | 0.50 | 24.00         |
|            |                            | 4183      | 836.6          | 23.54              |      |               | 23.54              |      |               |
|            |                            | 4233      | 846.6          | 23.56              |      |               | 23.56              |      |               |
|            | Subtest 4                  | 4132      | 826.4          | 23.50              | 0.50 | 24.00         | 23.50              | 0.50 | 24.00         |
|            |                            | 4183      | 836.6          | 23.55              |      |               | 23.55              |      |               |
|            |                            | 4233      | 846.6          | 23.57              |      |               | 23.57              |      |               |
| HSPA+      | Subtest 1                  | 4132      | 826.4          | 22.00              | 2.50 | 22.00         | 22.00              | 2.50 | 22.00         |
|            |                            | 4183      | 836.6          | 22.00              |      |               | 22.00              |      |               |
|            |                            | 4233      | 846.6          | 22.00              |      |               | 22.00              |      |               |

### 9.3. CDMA

#### 1x Advanced Setup Procedures used to establish the test signals

##### Call box setup procedure

- Protocol Rev > 6 (IS-2000-0)
- System ID: 331; NID: 65535, Reg. Ch. #.:
- Radio Config (RC) > Fwd11, Rvs8
- Service Option (SO) Setup > SO75 (Loopback)
- Traffic Data Rate > Full
- Rvs Power Ctrl > All Up bits (Maximum Tx Pout)
- Reverse Power Control Mode: 00-200 to 400 bps
- Smart blanking was disabled.

#### 1xEV-DO Rev. B Setup Procedures used to establish the test signals

##### Call box setup procedure

- CMW 500 Signal Generator > 1xEV-DO Taskbar Enable
- CMW 500 1xEV-DO Signaling Configuration Window >
- 1xEV-DO Signaling On Window:  
Under Access Network Control:  
Band Class: BC0: US Cellular  
RF Channel: 31  
1xEV-DO Power: -70 dBm  
Release B
- 1xEV-DO Signaling Configuration Window  
  
Under RF Frequency Band / Channel: Enter Ch. Frequency  
➤ Under Carrier Configuration: RF Frequency  
For Two Carriers: Low Channel (1013)

|             | <u>RF Channel</u> | <u>RF Channel Offset</u> |
|-------------|-------------------|--------------------------|
| Carrier [0] | 31                | 0                        |
| Carrier [1] | 1013              | 982                      |

|           | <u>Carrier Sector</u> | <u>Active on AN</u> | <u>Assigned to AT</u> |
|-----------|-----------------------|---------------------|-----------------------|
| Pilot [0] | C0/S0                 | ✓                   | ✓                     |
|           | CA/S1                 | ✓                   | ✓                     |

For Three Carriers: Low Channel (1013)

|             | <u>RF Channel</u> | <u>RF Channel Offset</u> |
|-------------|-------------------|--------------------------|
| Carrier [0] | 72                | 0                        |
| Carrier [1] | 31                | -41                      |
| Carrier [2] | 1013              | 941                      |

|           | <u>Carrier Sector</u> | <u>Active on AN</u> | <u>Assigned to AT</u> |
|-----------|-----------------------|---------------------|-----------------------|
| Pilot [0] | C0/S0                 | ✓                   | ✓                     |
| Pilot [1] | C1/S1                 | ✓                   | ✓                     |
| Pilot [2] | C2/S2                 | ✓                   | ✓                     |

- Rvs Power Ctrl > All Up bits (to get the maximum power)

**Maximum Output Power (Tune-up Limit) for CDMA**

SAR for next to the ear head exposure is measured in RC3 with the handset configured to transmit at full rate in SO55. The 3G SAR test reduction procedure is applied to RC1 with RC3 as the primary mode

Body-worn accessory SAR is measured in RC3 with the handset configured in TDSO/SO32 to transmit at full rate on FCH only with all other code channels disabled. The body-worn accessory procedures in KDB Publication 447498 D01 are applied. The 3G SAR test reduction procedure is applied to the multiple code channel configuration (FCH+SCHn), with FCH only as the primary mode.

When VOIP is supported by Ev-Do devices for next to the ear use, head exposure SAR is required.

SAR measurement is not required for the 1xEVDO Rev. A, Rel. 0 and 1x-Advanced. When primary mode and the adjusted SAR is  $\leq 1.2$  W/kg and secondary mode is  $\leq \frac{1}{4}$  dB higher than the primary mode

| RF Air interface | Mode          | Maximum Output Power (Tune-up Limit)<br>(dBm) |        |        |        |        |        |        |        |
|------------------|---------------|-----------------------------------------------|--------|--------|--------|--------|--------|--------|--------|
|                  |               | ANT1                                          |        | ANT2   |        | ANT3   |        | ANT4   |        |
|                  |               | Mode A                                        | Mode B | Mode A | Mode B | Mode A | Mode B | Mode A | Mode B |
| CDMA BC0         | 1xRTT         | 25.70                                         | 25.70  | 24.50  | 24.50  |        |        |        |        |
|                  | 1xAdvanced    | 25.70                                         | 25.70  | 24.50  | 24.50  |        |        |        |        |
|                  | 1xEVDO Rel. 0 | 25.70                                         | 25.70  | 24.50  | 24.50  |        |        |        |        |
|                  | 1xEVDO Rev. A | 25.70                                         | 25.70  | 24.50  | 24.50  |        |        |        |        |
| CDMA BC1         | 1xRTT         | 25.70                                         | 21.75  | 20.50  | 18.50  |        |        |        |        |
|                  | 1xAdvanced    | 25.70                                         | 21.75  | 20.50  | 18.50  |        |        |        |        |
|                  | 1xEVDO Rel. 0 | 25.70                                         | 21.75  | 20.50  | 18.50  |        |        |        |        |
|                  | 1xEVDO Rev. A | 25.70                                         | 21.75  | 20.50  | 18.50  |        |        |        |        |
| CDMA BC10        | 1xRTT         | 25.70                                         | 25.70  | 24.50  | 24.50  |        |        |        |        |
|                  | 1xAdvanced    | 25.70                                         | 25.70  | 24.50  | 24.50  |        |        |        |        |
|                  | 1xEVDO Rel. 0 | 25.70                                         | 25.70  | 24.50  | 24.50  |        |        |        |        |
|                  | 1xEVDO Rev. A | 25.70                                         | 25.70  | 24.50  | 24.50  |        |        |        |        |

CDMA BC1 is not supported by ANT3 and ANT 4.

**CDMA BC0 Measured Results (ANT1)**

| Mode              |                                                                    | Channel | Freq.<br>(MHz) | Power Mode A (dBm) |               | Power Mode B (dBm) |               |
|-------------------|--------------------------------------------------------------------|---------|----------------|--------------------|---------------|--------------------|---------------|
|                   |                                                                    |         |                | Measured Pwr       | Tune-up Limit | Measured Pwr       | Tune-up Limit |
| 1xRTT             | RC1, SO55<br>(Loopback)                                            | 1013    | 824.70         | 25.50              | 25.70         | 25.50              | 25.70         |
|                   |                                                                    | 384     | 836.52         | 25.50              |               | 25.50              |               |
|                   |                                                                    | 777     | 848.31         | 25.50              |               | 25.50              |               |
|                   | RC3, SO55<br>(Loopback)                                            | 1013    | 824.70         | 25.50              |               | 25.50              |               |
|                   |                                                                    | 384     | 836.52         | 25.50              |               | 25.50              |               |
|                   |                                                                    | 777     | 848.31         | 25.50              |               | 25.50              |               |
|                   | RC3, SO32<br>(+F-SCH)                                              | 1013    | 824.70         | 25.50              |               | 25.50              |               |
|                   |                                                                    | 384     | 836.52         | 25.50              |               | 25.50              |               |
|                   |                                                                    | 777     | 848.31         | 25.50              |               | 25.50              |               |
| 1xAdvanced        | Fwd11/Rvs8<br>SO75<br>(Loopback)                                   | 1013    | 824.70         | 25.50              | 25.70         | 25.50              | 25.70         |
|                   |                                                                    | 384     | 836.52         | 25.50              |               | 25.50              |               |
|                   |                                                                    | 777     | 848.31         | 25.50              |               | 25.50              |               |
| 1xEv-Do<br>Rel. 0 | 307.2 kbps<br>(2 slot, QPSK)                                       | 1013    | 824.70         | 25.50              | 25.70         | 25.50              | 25.70         |
|                   |                                                                    | 384     | 836.52         | 25.50              |               | 25.50              |               |
|                   |                                                                    | 777     | 848.31         | 25.50              |               | 25.50              |               |
| 1xEv-Do<br>Rev. A | 307.2k, QPSK/<br>ACK channel is<br>transmitted at<br>all the slots | 1013    | 824.70         | 25.50              | 25.70         | 25.50              | 25.70         |
|                   |                                                                    | 384     | 836.52         | 25.50              |               | 25.50              |               |
|                   |                                                                    | 777     | 848.31         | 25.50              |               | 25.50              |               |

**CDMA BC0 Measured Results (ANT2)**

| Mode              |                                                                    | Channel | Freq.<br>(MHz) | Power Mode A (dBm) |               | Power Mode B (dBm) |               |
|-------------------|--------------------------------------------------------------------|---------|----------------|--------------------|---------------|--------------------|---------------|
|                   |                                                                    |         |                | Measured Pwr       | Tune-up Limit | Measured Pwr       | Tune-up Limit |
| 1xRTT             | RC1, SO55<br>(Loopback)                                            | 1013    | 824.70         | 24.30              | 24.50         | 24.30              | 24.50         |
|                   |                                                                    | 384     | 836.52         | 24.30              |               | 24.30              |               |
|                   |                                                                    | 777     | 848.31         | 24.30              |               | 24.30              |               |
|                   | RC3, SO55<br>(Loopback)                                            | 1013    | 824.70         | 24.30              |               | 24.30              |               |
|                   |                                                                    | 384     | 836.52         | 24.30              |               | 24.30              |               |
|                   |                                                                    | 777     | 848.31         | 24.30              |               | 24.30              |               |
|                   | RC3, SO32<br>(+F-SCH)                                              | 1013    | 824.70         | 24.30              |               | 24.30              |               |
|                   |                                                                    | 384     | 836.52         | 24.30              |               | 24.30              |               |
|                   |                                                                    | 777     | 848.31         | 24.30              |               | 24.30              |               |
| 1xAdvanced        | Fwd11/Rvs8<br>SO75<br>(Loopback)                                   | 1013    | 824.70         | 24.30              | 24.50         | 24.30              | 24.50         |
|                   |                                                                    | 384     | 836.52         | 24.30              |               | 24.30              |               |
|                   |                                                                    | 777     | 848.31         | 24.30              |               | 24.30              |               |
| 1xEv-Do<br>Rel. 0 | 307.2 kbps<br>(2 slot, QPSK)                                       | 1013    | 824.70         | 24.30              | 24.50         | 24.30              | 24.50         |
|                   |                                                                    | 384     | 836.52         | 24.30              |               | 24.30              |               |
|                   |                                                                    | 777     | 848.31         | 24.30              |               | 24.30              |               |
| 1xEv-Do<br>Rev. A | 307.2k, QPSK/<br>ACK channel is<br>transmitted at<br>all the slots | 1013    | 824.70         | 24.30              | 24.50         | 24.30              | 24.50         |
|                   |                                                                    | 384     | 836.52         | 24.30              |               | 24.30              |               |
|                   |                                                                    | 777     | 848.31         | 24.30              |               | 24.30              |               |

**CDMA BC1 Measured Results (ANT1)**

| Mode              |                                                                    | Channel | Freq.<br>(MHz) | Power Mode A (dBm) |               | Power Mode B (dBm) |               |
|-------------------|--------------------------------------------------------------------|---------|----------------|--------------------|---------------|--------------------|---------------|
|                   |                                                                    |         |                | Measured Pwr       | Tune-up Limit | Measured Pwr       | Tune-up Limit |
| 1xRTT             | RC1, SO55<br>(Loopback)                                            | 25      | 1851.25        | 25.50              | 25.70         | 21.47              | 21.75         |
|                   |                                                                    | 600     | 1880.00        | 25.50              |               | 21.42              |               |
|                   |                                                                    | 1175    | 1908.75        | 25.35              |               | 21.42              |               |
|                   | RC3, SO55<br>(Loopback)                                            | 25      | 1851.25        | 25.50              |               | 21.65              |               |
|                   |                                                                    | 600     | 1880.00        | 25.50              |               | 21.57              |               |
|                   |                                                                    | 1175    | 1908.75        | 25.40              |               | 21.60              |               |
|                   | RC3, SO32<br>(+F-SCH)                                              | 25      | 1851.25        | 25.30              |               | 21.47              |               |
|                   |                                                                    | 600     | 1880.00        | 25.50              |               | 21.42              |               |
|                   |                                                                    | 1175    | 1908.75        | 25.40              |               | 21.42              |               |
| 1xAdvanced        | Fwd11/Rvs8<br>SO75<br>(Loopback)                                   | 25      | 1851.25        | 25.20              | 25.70         | 21.30              | 21.75         |
|                   |                                                                    | 600     | 1880           | 25.10              |               | 21.55              |               |
|                   |                                                                    | 1175    | 1908.75        | 25.05              |               | 21.50              |               |
| 1xEv-Do<br>Rel. 0 | 307.2 kbps<br>(2 slot, QPSK)                                       | 25      | 1851.25        | 25.50              | 25.70         | 21.45              | 21.75         |
|                   |                                                                    | 600     | 1880.00        | 25.50              |               | 21.55              |               |
|                   |                                                                    | 1175    | 1908.75        | 25.35              |               | 21.60              |               |
| 1xEv-Do<br>Rev. A | 307.2k, QPSK/<br>ACK channel is<br>transmitted at<br>all the slots | 25      | 1851.25        | 25.50              | 25.70         | 21.30              | 21.75         |
|                   |                                                                    | 600     | 1880           | 25.50              |               | 21.55              |               |
|                   |                                                                    | 1175    | 1908.75        | 25.35              |               | 21.50              |               |

**CDMA BC1 Measured Results (ANT2)**

| Mode              |                                                                    | Channel | Freq.<br>(MHz) | Power Mode A (dBm) |               | Power Mode B (dBm) |               |
|-------------------|--------------------------------------------------------------------|---------|----------------|--------------------|---------------|--------------------|---------------|
|                   |                                                                    |         |                | Measured Pwr       | Tune-up Limit | Measured Pwr       | Tune-up Limit |
| 1xRTT             | RC1, SO55<br>(Loopback)                                            | 25      | 1851.25        | 20.30              | 20.50         | 18.50              | 18.50         |
|                   |                                                                    | 600     | 1880.00        | 20.30              |               | 18.40              |               |
|                   |                                                                    | 1175    | 1908.75        | 20.30              |               | 18.50              |               |
|                   | RC3, SO55<br>(Loopback)                                            | 25      | 1851.25        | 20.30              |               | 18.50              |               |
|                   |                                                                    | 600     | 1880.00        | 20.30              |               | 18.40              |               |
|                   |                                                                    | 1175    | 1908.75        | 20.30              |               | 18.50              |               |
|                   | RC3, SO32<br>(+F-SCH)                                              | 25      | 1851.25        | 20.30              |               | 18.50              |               |
|                   |                                                                    | 600     | 1880.00        | 20.30              |               | 18.40              |               |
|                   |                                                                    | 1175    | 1908.75        | 20.30              |               | 18.50              |               |
| 1xAdvanced        | Fwd11/Rvs8<br>SO75<br>(Loopback)                                   | 25      | 1851.25        | 20.30              | 20.50         | 18.50              | 18.50         |
|                   |                                                                    | 600     | 1880           | 20.30              |               | 18.40              |               |
|                   |                                                                    | 1175    | 1908.75        | 20.30              |               | 18.50              |               |
| 1xEv-Do<br>Rel. 0 | 307.2 kbps<br>(2 slot, QPSK)                                       | 25      | 1851.25        | 20.30              | 20.50         | 18.50              | 18.50         |
|                   |                                                                    | 600     | 1880.00        | 20.30              |               | 18.40              |               |
|                   |                                                                    | 1175    | 1908.75        | 20.30              |               | 18.50              |               |
| 1xEv-Do<br>Rev. A | 307.2k, QPSK/<br>ACK channel is<br>transmitted at<br>all the slots | 25      | 1851.25        | 20.30              | 20.50         | 18.50              | 18.50         |
|                   |                                                                    | 600     | 1880           | 20.30              |               | 18.40              |               |
|                   |                                                                    | 1175    | 1908.75        | 20.30              |               | 18.50              |               |

**CDMA BC10 Measured Results (ANT1)**

| Mode              |                                                                    | Channel | Freq.<br>(MHz) | Power Mode A (dBm) |               | Power Mode B (dBm) |               |
|-------------------|--------------------------------------------------------------------|---------|----------------|--------------------|---------------|--------------------|---------------|
|                   |                                                                    |         |                | Measured Pwr       | Tune-up Limit | Measured Pwr       | Tune-up Limit |
| 1xRTT             | RC1, SO55<br>(Loopback)                                            | 560     | 820.00         | 25.70              | 25.70         | 25.70              | 25.70         |
|                   | RC3, SO55<br>(Loopback)                                            | 560     | 820.00         | 25.70              |               | 25.70              |               |
|                   | RC3, SO32<br>(+F-SCH)                                              | 560     | 820.00         | 25.70              |               | 25.70              |               |
| 1xAdvanced        | Fwd11/Rvs8<br>SO75<br>(Loopback)                                   | 560     | 820.00         | 25.70              | 25.70         | 25.70              | 25.70         |
| 1xEv-Do<br>Rel. 0 | 307.2 kbps<br>(2 slot, QPSK)                                       | 560     | 820.00         | 25.70              | 25.70         | 25.70              | 25.70         |
| 1xEv-Do<br>Rev. A | 307.2k, QPSK/<br>ACK channel is<br>transmitted at<br>all the slots | 560     | 820.00         | 25.70              | 25.70         | 25.70              | 25.70         |

**CDMA BC10 Measured Results (ANT2)**

| Mode              |                                                                    | Channel | Freq.<br>(MHz) | Power Mode A (dBm) |               | Power Mode B (dBm) |               |
|-------------------|--------------------------------------------------------------------|---------|----------------|--------------------|---------------|--------------------|---------------|
|                   |                                                                    |         |                | Measured Pwr       | Tune-up Limit | Measured Pwr       | Tune-up Limit |
| 1xRTT             | RC1, SO55<br>(Loopback)                                            | 560     | 820.00         | 24.50              | 24.50         | 24.50              | 24.50         |
|                   | RC3, SO55<br>(Loopback)                                            | 560     | 820.00         | 24.50              |               | 24.50              |               |
|                   | RC3, SO32<br>(+F-SCH)                                              | 560     | 820.00         | 24.50              |               | 24.50              |               |
| 1xAdvanced        | Fwd11/Rvs8<br>SO75<br>(Loopback)                                   | 560     | 820.00         | 24.50              | 24.50         | 24.50              | 24.50         |
| 1xEv-Do<br>Rel. 0 | 307.2 kbps<br>(2 slot, QPSK)                                       | 560     | 820.00         | 24.50              | 24.50         | 24.50              | 24.50         |
| 1xEv-Do<br>Rev. A | 307.2k, QPSK/<br>ACK channel is<br>transmitted at<br>all the slots | 560     | 820.00         | 24.50              | 24.50         | 24.50              | 24.50         |

## 9.4. LTE

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 ( $N_{RB}$ ) |         |       |        |        |        | 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      |
| 64 QAM     | > 5                                                     | > 4     | > 8   | > 12   | > 16   | > 18   | ≤ 2      |
| 256 QAM    | ≤ 5                                                     | ≤ 4     | ≤ 8   | ≤ 12   | ≤ 16   | ≤ 18   | ≤ 2      |
| 256 QAM    | > 5                                                     | > 4     | > 8   | > 12   | > 16   | > 18   | ≤ 3      |
| 256 QAM    | ≥ 1                                                     |         |       |        |        |        | ≤ 5      |

The allowed A-MPR values specified below in Table 6.2.4.-1 of 3GPP TS36.101 are in addition to the allowed MPR requirements. All the measurements below were performed with A-MPR disabled, by using Network Signaling Value of "NS\_01".

**Table 6.2.4-1: Additional Maximum Power Reduction (A-MPR)**

| Network Signalling value | Requirements (subclause) | E-UTRA Band | Channel bandwidth (MHz) | Resources Blocks ( $N_{RB}$ ) | A-MPR (dB) |
|--------------------------|--------------------------|-------------|-------------------------|-------------------------------|------------|
| NS_01                    | 6.6.2.1.1                | Table 5.5-1 | 1.4, 3, 5, 10, 15, 20   | Table 5.6-1                   | N/A        |

**Maximum Output Power (Tune-up Limit) for LTE**

According to April 2015 TCB workshop, SAR test exclusion can be applied for testing overlapping LTE bands as follows:

- a) The maximum output power, including tolerance, for the smaller band must be  $\leq$  the larger band to qualify for the SAR test exclusion.
- b) The channel bandwidth and other operating parameters for the smaller band must be fully supported by the larger band.
  - LTE Band 2 (1850-1910 MHz) is covered by LTE Band 25 (1850-1915 MHz)
  - LTE Band 4 (1710-1755 MHz) is covered by LTE Band 66 (1710-1780 MHz)
  - LTE Band 17 (704-716 MHz) is covered by LTE Band 12 (699-716 MHz)

Maximum bandwidth does not support at least three non-overlapping channels in certain channel bandwidths. 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 per KDB 941225 D05 SAR for LTE Devices.

LTE QPSK configuration has the highest maximum average output power per 3GPP standard.

SAR measurement is not required for the 16QAM and 64QAM. When the highest maximum output power for 16QAM and 64QAM is  $\leq \frac{1}{2}$  dB higher than the QPSK or when the reported SAR for the QPSK configuration is  $\leq 1.45$  W/kg.

Please refer to section 6.3. for LTE detail test channels.

| RF Air interface   | Mode | Maximum Output Power (Tune-up Limit)<br>(dBm) |        |        |        |        |        |        |        |
|--------------------|------|-----------------------------------------------|--------|--------|--------|--------|--------|--------|--------|
|                    |      | ANT1                                          |        | ANT2   |        | ANT3   |        | ANT4   |        |
|                    |      | Mode A                                        | Mode B | Mode A | Mode B | Mode A | Mode B | Mode A | Mode B |
| LTE Band 2         | QPSK | 25.70                                         | 21.75  | 20.50  | 18.50  | 25.00  | 19.75  | 18.75  | 20.00  |
| LTE Band 4         | QPSK | 25.70                                         | 18.00  | 22.00  | 20.00  | 25.00  | 21.75  | 21.00  | 22.25  |
| LTE Band 5         | QPSK | 25.70                                         | 25.70  | 24.50  | 24.50  |        |        |        |        |
| LTE Band 7         | QPSK | 25.70                                         | 21.75  | 18.75  | 20.50  | 25.00  | 21.75  | 17.00  | 18.25  |
| LTE Band 12        | QPSK | 25.70                                         | 25.70  | 24.50  | 24.50  |        |        |        |        |
| LTE Band 13        | QPSK | 25.70                                         | 25.70  | 24.50  | 24.50  |        |        |        |        |
| LTE Band 14        | QPSK | 25.70                                         | 25.70  | 24.50  | 24.50  |        |        |        |        |
| LTE Band 17        | QPSK | 25.70                                         | 25.70  | 24.50  | 24.50  |        |        |        |        |
| LTE Band 25        | QPSK | 25.70                                         | 21.75  | 20.50  | 18.50  | 25.00  | 19.75  | 18.75  | 20.00  |
| LTE Band 26        | QPSK | 25.70                                         | 25.70  | 24.50  | 24.50  |        |        |        |        |
| LTE Band 30        | QPSK | 25.70                                         | 22.00  | 21.00  | 20.50  | 24.50  | 20.75  | 17.50  | 19.00  |
| LTE Band 41 (PC3)  | QPSK | 25.70                                         | 24.00  | 20.00  | 22.75  | 25.50  | 25.00  | 19.25  | 21.00  |
| LTE Band 41 (PC 2) | QPSK | 28.70                                         | 24.00  | 20.00  | 22.75  | 28.00  | 25.00  | 19.25  | 21.00  |
| LTE Band 66        | QPSK | 25.70                                         | 18.00  | 22.00  | 20.00  | 25.00  | 21.75  | 21.00  | 22.25  |
| LTE Band 71        | QPSK | 25.70                                         | 25.70  | 24.50  | 24.50  |        |        |        |        |
| RF Air interface   | Mode | Maximum Output Power (Tune-up Limit)<br>(dBm) |        |        |        |        |        |        |        |
|                    |      | ANT1                                          |        | ANT6   |        | ANT3   |        | ANT4   |        |
|                    |      | Mode A                                        | Mode B | Mode A | Mode B | Mode A | Mode B | Mode A | Mode B |
| LTE Band 48        | QPSK | 25.70                                         | 24.00  | 22.50  | 22.50  | 25.50  | 25.50  | 22.50  | 22.50  |

**LTE Band 5 Measured Results (ANT1)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |           |           |     |                  | Power Mode B (dBm) |           |           |     |                  |
|-------------|-------|------------------|--------------|--------------------|-----------|-----------|-----|------------------|--------------------|-----------|-----------|-----|------------------|
|             |       |                  |              |                    | 20525     |           | MPR | Tune-up<br>Limit |                    | 20525     |           | MPR | Tune-up<br>Limit |
|             |       |                  |              |                    | 836.5 MHz |           |     |                  |                    | 836.5 MHz |           |     |                  |
| 10 MHz      | QPSK  | 1                | 0            |                    | 25.19     |           | 0   | 25.70            |                    | 25.19     |           | 0   | 25.70            |
|             |       | 1                | 25           |                    | 25.20     |           | 0   | 25.70            |                    | 25.20     |           | 0   | 25.70            |
|             |       | 1                | 49           |                    | 24.99     |           | 0   | 25.70            |                    | 24.99     |           | 0   | 25.70            |
|             |       | 25               | 0            |                    | 24.14     |           | 1   | 24.70            |                    | 24.14     |           | 1   | 24.70            |
|             |       | 25               | 12           |                    | 24.20     |           | 1   | 24.70            |                    | 24.20     |           | 1   | 24.70            |
|             |       | 25               | 25           |                    | 24.03     |           | 1   | 24.70            |                    | 24.03     |           | 1   | 24.70            |
|             | 16QAM | 50               | 0            |                    | 24.20     |           | 1   | 24.70            |                    | 24.20     |           | 1   | 24.70            |
|             |       | 1                | 0            |                    | 24.52     |           | 1   | 24.70            |                    | 24.52     |           | 1   | 24.70            |
|             |       | 1                | 25           |                    | 24.52     |           | 1   | 24.70            |                    | 24.52     |           | 1   | 24.70            |
|             |       | 1                | 49           |                    | 24.44     |           | 1   | 24.70            |                    | 24.44     |           | 1   | 24.70            |
|             |       | 25               | 0            |                    | 23.19     |           | 2   | 23.70            |                    | 23.19     |           | 2   | 23.70            |
|             |       | 25               | 12           |                    | 23.16     |           | 2   | 23.70            |                    | 23.16     |           | 2   | 23.70            |
|             | 64QAM | 25               | 25           |                    | 23.07     |           | 2   | 23.70            |                    | 23.07     |           | 2   | 23.70            |
|             |       | 50               | 0            |                    | 23.16     |           | 2   | 23.70            |                    | 23.16     |           | 2   | 23.70            |
|             |       | 1                | 0            |                    | 23.47     |           | 2   | 23.70            |                    | 23.47     |           | 2   | 23.70            |
|             |       | 1                | 25           |                    | 23.43     |           | 2   | 23.70            |                    | 23.43     |           | 2   | 23.70            |
|             |       | 1                | 49           |                    | 23.29     |           | 2   | 23.70            |                    | 23.29     |           | 2   | 23.70            |
|             |       | 25               | 0            |                    | 22.28     |           | 3   | 22.70            |                    | 22.28     |           | 3   | 22.70            |
|             |       | 25               | 12           |                    | 22.24     |           | 3   | 22.70            |                    | 22.24     |           | 3   | 22.70            |
|             |       | 25               | 25           |                    | 22.21     |           | 3   | 22.70            |                    | 22.21     |           | 3   | 22.70            |
|             |       | 50               | 0            |                    | 22.26     |           | 3   | 22.70            |                    | 22.26     |           | 3   | 22.70            |
| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |           |           |     |                  | Power Mode B (dBm) |           |           |     |                  |
|             |       |                  |              | 20425              | 20525     | 20625     | MPR | Tune-up<br>Limit | 20425              | 20525     | 20625     | MPR | Tune-up<br>Limit |
|             |       |                  |              |                    | 826.5 MHz | 836.5 MHz |     |                  |                    | 826.5 MHz | 836.5 MHz |     |                  |
| 5 MHz       | QPSK  | 1                | 0            | 25.12              | 25.22     | 24.99     | 0   | 25.70            | 25.12              | 25.22     | 24.99     | 0   | 25.70            |
|             |       | 1                | 12           | 25.09              | 25.11     | 24.95     | 0   | 25.70            | 25.09              | 25.11     | 24.95     | 0   | 25.70            |
|             |       | 1                | 24           | 25.11              | 25.04     | 25.05     | 0   | 25.70            | 25.11              | 25.04     | 25.05     | 0   | 25.70            |
|             |       | 12               | 0            | 24.02              | 24.01     | 23.90     | 1   | 24.70            | 24.02              | 24.01     | 23.90     | 1   | 24.70            |
|             |       | 12               | 7            | 24.00              | 24.05     | 23.86     | 1   | 24.70            | 24.00              | 24.05     | 23.86     | 1   | 24.70            |
|             |       | 12               | 13           | 24.00              | 24.04     | 23.90     | 1   | 24.70            | 24.00              | 24.04     | 23.90     | 1   | 24.70            |
|             | 16QAM | 25               | 0            | 24.02              | 24.06     | 23.88     | 1   | 24.70            | 24.02              | 24.06     | 23.88     | 1   | 24.70            |
|             |       | 1                | 0            | 24.55              | 24.44     | 24.43     | 1   | 24.70            | 24.55              | 24.44     | 24.43     | 1   | 24.70            |
|             |       | 1                | 12           | 24.51              | 24.39     | 24.41     | 1   | 24.70            | 24.51              | 24.39     | 24.41     | 1   | 24.70            |
|             |       | 1                | 24           | 24.53              | 24.32     | 24.53     | 1   | 24.70            | 24.53              | 24.32     | 24.53     | 1   | 24.70            |
|             |       | 12               | 0            | 23.00              | 23.07     | 22.88     | 2   | 23.70            | 23.00              | 23.07     | 22.88     | 2   | 23.70            |
|             |       | 12               | 7            | 22.97              | 23.03     | 22.85     | 2   | 23.70            | 22.97              | 23.03     | 22.85     | 2   | 23.70            |
|             | 64QAM | 12               | 13           | 22.97              | 23.04     | 22.87     | 2   | 23.70            | 22.97              | 23.04     | 22.87     | 2   | 23.70            |
|             |       | 25               | 0            | 22.98              | 23.02     | 22.82     | 2   | 23.70            | 22.98              | 23.02     | 22.82     | 2   | 23.70            |
|             |       | 1                | 0            | 23.60              | 23.54     | 23.51     | 2   | 23.70            | 23.60              | 23.54     | 23.51     | 2   | 23.70            |
|             |       | 1                | 12           | 23.57              | 23.47     | 23.32     | 2   | 23.70            | 23.57              | 23.47     | 23.32     | 2   | 23.70            |
|             |       | 1                | 24           | 23.59              | 23.43     | 23.44     | 2   | 23.70            | 23.59              | 23.43     | 23.44     | 2   | 23.70            |
|             |       | 12               | 0            | 22.13              | 22.22     | 22.02     | 3   | 22.70            | 22.13              | 22.22     | 22.02     | 3   | 22.70            |
|             |       | 12               | 7            | 22.11              | 22.18     | 21.93     | 3   | 22.70            | 22.11              | 22.18     | 21.93     | 3   | 22.70            |
|             |       | 12               | 13           | 22.11              | 22.18     | 21.99     | 3   | 22.70            | 22.11              | 22.18     | 21.99     | 3   | 22.70            |
|             |       | 25               | 0            | 22.10              | 22.16     | 21.96     | 3   | 22.70            | 22.10              | 22.16     | 21.96     | 3   | 22.70            |
| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |           |           |     |                  | Power Mode B (dBm) |           |           |     |                  |
|             |       |                  |              | 20415              | 20525     | 20635     | MPR | Tune-up<br>Limit | 20415              | 20525     | 20635     | MPR | Tune-up<br>Limit |
|             |       |                  |              |                    | 825.5 MHz | 836.5 MHz |     |                  |                    | 825.5 MHz | 836.5 MHz |     |                  |
| 3 MHz       | QPSK  | 1                | 0            | 25.07              | 25.04     | 24.94     | 0   | 25.70            | 25.07              | 25.04     | 24.94     | 0   | 25.70            |
|             |       | 1                | 8            | 25.10              | 25.09     | 25.01     | 0   | 25.70            | 25.10              | 25.09     | 25.01     | 0   | 25.70            |
|             |       | 1                | 14           | 25.06              | 25.02     | 25.01     | 0   | 25.70            | 25.06              | 25.02     | 25.01     | 0   | 25.70            |
|             |       | 8                | 0            | 23.92              | 23.94     | 23.80     | 1   | 24.70            | 23.92              | 23.94     | 23.80     | 1   | 24.70            |
|             |       | 8                | 4            | 23.90              | 23.92     | 23.84     | 1   | 24.70            | 23.90              | 23.92     | 23.84     | 1   | 24.70            |
|             |       | 8                | 7            | 23.91              | 23.90     | 23.84     | 1   | 24.70            | 23.91              | 23.90     | 23.84     | 1   | 24.70            |
|             | 16QAM | 15               | 0            | 23.93              | 23.95     | 23.86     | 1   | 24.70            | 23.93              | 23.95     | 23.86     | 1   | 24.70            |
|             |       | 1                | 0            | 24.30              | 24.32     | 24.30     | 1   | 24.70            | 24.30              | 24.32     | 24.30     | 1   | 24.70            |
|             |       | 1                | 8            | 24.36              | 24.35     | 24.31     | 1   | 24.70            | 24.36              | 24.35     | 24.31     | 1   | 24.70            |
|             |       | 1                | 14           | 24.33              | 24.30     | 24.29     | 1   | 24.70            | 24.33              | 24.30     | 24.29     | 1   | 24.70            |
|             |       | 8                | 0            | 22.89              | 22.88     | 22.75     | 2   | 23.70            | 22.89              | 22.88     | 22.75     | 2   | 23.70            |
|             |       | 8                | 4            | 22.88              | 22.87     | 22.77     | 2   | 23.70            | 22.88              | 22.87     | 22.77     | 2   | 23.70            |
|             | 64QAM | 8                | 7            | 22.90              | 22.88     | 22.76     | 2   | 23.70            | 22.90              | 22.88     | 22.76     | 2   | 23.70            |
|             |       | 15               | 0            | 22.93              | 22.87     | 22.83     | 2   | 23.70            | 22.93              | 22.87     | 22.83     | 2   | 23.70            |
|             |       | 1                | 0            | 23.36              | 23.28     | 23.31     | 2   | 23.70            | 23.36              | 23.28     | 23.31     | 2   | 23.70            |
|             |       | 1                | 8            | 23.39              | 23.36     | 23.31     | 2   | 23.70            | 23.39              | 23.36     | 23.31     | 2   | 23.70            |
|             |       | 1                | 14           | 23.34              | 23.31     | 23.40     | 2   | 23.70            | 23.34              | 23.31     | 23.40     | 2   | 23.70            |
|             |       | 8                | 0            | 22.02              | 21.99     | 21.93     | 3   | 22.70            | 22.02              | 21.99     | 21.93     | 3   | 22.70            |
|             |       | 8                | 4            | 21.99              | 21.99     | 21.98     | 3   | 22.70            | 21.99              | 21.99     | 21.98     | 3   | 22.70            |
|             |       | 8                | 7            | 21.99              | 21.99     | 21.97     | 3   | 22.70            | 21.99              | 21.99     | 21.97     | 3   | 22.70            |
|             |       | 15               | 0            | 21.94              | 22.02     | 21.99     | 3   | 22.70            | 21.94              | 22.02     | 21.99     | 3   | 22.70            |

**LTE Band 5 Measured Results (ANT1) (continued)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |           |           |     |                  | Power Mode B (dBm) |           |           |     |                  |
|-------------|-------|------------------|--------------|--------------------|-----------|-----------|-----|------------------|--------------------|-----------|-----------|-----|------------------|
|             |       |                  |              | 20407              | 20525     | 20643     | MPR | Tune-up<br>Limit | 20407              | 20525     | 20643     | MPR | Tune-up<br>Limit |
|             |       |                  |              | 824.7 MHz          | 836.5 MHz | 848.3 MHz |     |                  | 824.7 MHz          | 836.5 MHz | 848.3 MHz |     |                  |
| 1.4 MHz     | QPSK  | 1                | 0            | 25.13              | 25.13     | 24.92     | 0   | 25.70            | 25.13              | 25.13     | 24.92     | 0   | 25.70            |
|             |       | 1                | 3            | 25.13              | 25.04     | 24.96     | 0   | 25.70            | 25.13              | 25.04     | 24.96     | 0   | 25.70            |
|             |       | 1                | 5            | 25.15              | 25.06     | 25.04     | 0   | 25.70            | 25.15              | 25.06     | 25.04     | 0   | 25.70            |
|             |       | 3                | 0            | 24.95              | 24.96     | 24.80     | 0   | 25.70            | 24.95              | 24.96     | 24.80     | 0   | 25.70            |
|             |       | 3                | 1            | 24.93              | 24.96     | 24.80     | 0   | 25.70            | 24.93              | 24.96     | 24.80     | 0   | 25.70            |
|             |       | 3                | 3            | 24.93              | 24.93     | 24.78     | 0   | 25.70            | 24.93              | 24.93     | 24.78     | 0   | 25.70            |
|             | 16QAM | 6                | 0            | 23.85              | 23.88     | 23.81     | 1   | 24.70            | 23.85              | 23.88     | 23.81     | 1   | 24.70            |
|             |       | 1                | 0            | 24.46              | 24.25     | 24.24     | 1   | 24.70            | 24.46              | 24.25     | 24.24     | 1   | 24.70            |
|             |       | 1                | 3            | 24.45              | 24.23     | 24.25     | 1   | 24.70            | 24.45              | 24.23     | 24.25     | 1   | 24.70            |
|             |       | 1                | 5            | 24.37              | 24.27     | 24.28     | 1   | 24.70            | 24.37              | 24.27     | 24.28     | 1   | 24.70            |
|             |       | 3                | 0            | 24.15              | 24.03     | 23.91     | 1   | 24.70            | 24.15              | 24.03     | 23.91     | 1   | 24.70            |
|             |       | 3                | 1            | 24.11              | 23.95     | 23.91     | 1   | 24.70            | 24.11              | 23.95     | 23.91     | 1   | 24.70            |
|             | 64QAM | 3                | 3            | 24.08              | 23.99     | 23.91     | 1   | 24.70            | 24.08              | 23.99     | 23.91     | 1   | 24.70            |
|             |       | 6                | 0            | 23.01              | 22.91     | 22.89     | 2   | 23.70            | 23.01              | 22.91     | 22.89     | 2   | 23.70            |
|             |       | 1                | 0            | 23.42              | 23.60     | 23.30     | 2   | 23.70            | 23.42              | 23.60     | 23.30     | 2   | 23.70            |
|             |       | 1                | 3            | 23.38              | 23.59     | 23.24     | 2   | 23.70            | 23.38              | 23.59     | 23.24     | 2   | 23.70            |
|             |       | 1                | 5            | 23.48              | 23.60     | 23.39     | 2   | 23.70            | 23.48              | 23.60     | 23.39     | 2   | 23.70            |
|             |       | 3                | 0            | 23.26              | 23.27     | 23.12     | 2   | 23.70            | 23.26              | 23.27     | 23.12     | 2   | 23.70            |
|             | 64QAM | 3                | 1            | 23.19              | 23.25     | 23.11     | 2   | 23.70            | 23.19              | 23.25     | 23.11     | 2   | 23.70            |
|             |       | 3                | 3            | 23.20              | 23.25     | 23.11     | 2   | 23.70            | 23.20              | 23.25     | 23.11     | 2   | 23.70            |
|             |       | 6                | 0            | 22.08              | 22.07     | 22.01     | 3   | 22.70            | 22.08              | 22.07     | 22.01     | 3   | 22.70            |

**LTE Band 5 Measured Results (ANT2)**

| BW<br>(MHz) | Mode        | RB<br>Allocation | RB<br>offset     | Power Mode A (dBm) |                    |           |       |                  | Power Mode B (dBm) |                    |           |       |                  |       |
|-------------|-------------|------------------|------------------|--------------------|--------------------|-----------|-------|------------------|--------------------|--------------------|-----------|-------|------------------|-------|
|             |             |                  |                  |                    | 20525              |           | MPR   | Tune-up<br>Limit |                    | 20525              |           | MPR   | Tune-up<br>Limit |       |
|             |             |                  |                  |                    | 836.5 MHz          |           |       |                  |                    | 836.5 MHz          |           |       |                  |       |
| 10 MHz      | QPSK        | 1                | 0                |                    | 23.94              |           | 0     | 24.50            |                    | 23.94              |           | 0     | 24.50            |       |
|             |             | 1                | 25               |                    | 24.00              |           | 0     | 24.50            |                    | 24.00              |           | 0     | 24.50            |       |
|             |             | 1                | 49               |                    | 23.98              |           | 0     | 24.50            |                    | 23.98              |           | 0     | 24.50            |       |
|             |             | 25               | 0                |                    | 22.86              |           | 1     | 23.50            |                    | 22.86              |           | 1     | 23.50            |       |
|             |             | 25               | 12               |                    | 23.00              |           | 1     | 23.50            |                    | 23.00              |           | 1     | 23.50            |       |
|             |             | 25               | 25               |                    | 22.95              |           | 1     | 23.50            |                    | 22.95              |           | 1     | 23.50            |       |
|             | 16QAM       | 50               | 0                |                    | 23.00              |           | 1     | 23.50            |                    | 23.00              |           | 1     | 23.50            |       |
|             |             | 1                | 0                |                    | 23.35              |           | 1     | 23.50            |                    | 23.35              |           | 1     | 23.50            |       |
|             |             | 1                | 25               |                    | 23.31              |           | 1     | 23.50            |                    | 23.31              |           | 1     | 23.50            |       |
|             |             | 1                | 49               |                    | 23.31              |           | 1     | 23.50            |                    | 23.31              |           | 1     | 23.50            |       |
|             |             | 25               | 0                |                    | 21.90              |           | 2     | 22.50            |                    | 21.90              |           | 2     | 22.50            |       |
|             |             | 25               | 12               |                    | 21.94              |           | 2     | 22.50            |                    | 21.94              |           | 2     | 22.50            |       |
|             | 64QAM       | 25               | 25               |                    | 22.00              |           | 2     | 22.50            |                    | 22.00              |           | 2     | 22.50            |       |
|             |             | 50               | 0                |                    | 21.95              |           | 2     | 22.50            |                    | 21.95              |           | 2     | 22.50            |       |
|             |             | 1                | 0                |                    | 22.49              |           | 2     | 22.50            |                    | 22.49              |           | 2     | 22.50            |       |
|             |             | 1                | 25               |                    | 22.46              |           | 2     | 22.50            |                    | 22.46              |           | 2     | 22.50            |       |
|             |             | 1                | 49               |                    | 22.48              |           | 2     | 22.50            |                    | 22.48              |           | 2     | 22.50            |       |
|             |             | 25               | 0                |                    | 21.39              |           | 3     | 21.50            |                    | 21.39              |           | 3     | 21.50            |       |
|             |             | 25               | 12               |                    | 21.43              |           | 3     | 21.50            |                    | 21.43              |           | 3     | 21.50            |       |
|             |             | 25               | 25               |                    | 21.45              |           | 3     | 21.50            |                    | 21.45              |           | 3     | 21.50            |       |
|             | 50          | 0                |                  | 21.44              |                    | 3         | 21.50 |                  | 21.44              |                    | 3         | 21.50 |                  |       |
|             | BW<br>(MHz) | Mode             | RB<br>Allocation | RB<br>offset       | Power Mode A (dBm) |           |       |                  |                    | Power Mode B (dBm) |           |       |                  |       |
| 20425       |             |                  |                  |                    | 20525              | 20625     | MPR   | Tune-up<br>Limit | 20425              | 20525              | 20625     | MPR   | Tune-up<br>Limit |       |
| 826.5 MHz   |             |                  |                  |                    | 836.5 MHz          | 846.5 MHz |       |                  | 826.5 MHz          | 836.5 MHz          | 846.5 MHz |       |                  |       |
| 5 MHz       | QPSK        | 1                | 0                |                    | 23.88              | 23.99     | 0     | 24.50            | 23.92              | 23.88              | 23.99     | 0     | 24.50            |       |
|             |             | 1                | 12               |                    | 23.96              | 23.88     | 23.84 | 0                | 24.50              | 23.96              | 23.88     | 23.84 | 0                | 24.50 |
|             |             | 1                | 24               |                    | 23.94              | 23.98     | 23.96 | 0                | 24.50              | 23.94              | 23.98     | 23.96 | 0                | 24.50 |
|             |             | 12               | 0                |                    | 22.92              | 22.79     | 22.86 | 1                | 23.50              | 22.92              | 22.79     | 22.86 | 1                | 23.50 |
|             |             | 12               | 7                |                    | 22.90              | 22.79     | 22.72 | 1                | 23.50              | 22.90              | 22.79     | 22.72 | 1                | 23.50 |
|             |             | 12               | 13               |                    | 22.90              | 22.78     | 22.78 | 1                | 23.50              | 22.90              | 22.78     | 22.78 | 1                | 23.50 |
|             | 16QAM       | 25               | 0                |                    | 22.93              | 22.78     | 22.76 | 1                | 23.50              | 22.93              | 22.78     | 22.76 | 1                | 23.50 |
|             |             | 1                | 0                |                    | 23.33              | 23.16     | 23.46 | 1                | 23.50              | 23.33              | 23.16     | 23.46 | 1                | 23.50 |
|             |             | 1                | 12               |                    | 23.38              | 23.18     | 23.26 | 1                | 23.50              | 23.38              | 23.18     | 23.26 | 1                | 23.50 |
|             |             | 1                | 24               |                    | 23.37              | 23.26     | 23.38 | 1                | 23.50              | 23.37              | 23.26     | 23.38 | 1                | 23.50 |
|             |             | 12               | 0                |                    | 21.90              | 21.80     | 21.87 | 2                | 22.50              | 21.90              | 21.80     | 21.87 | 2                | 22.50 |
|             |             | 12               | 7                |                    | 21.87              | 21.82     | 21.77 | 2                | 22.50              | 21.87              | 21.82     | 21.77 | 2                | 22.50 |
|             |             | 12               | 13               |                    | 21.88              | 21.83     | 21.79 | 2                | 22.50              | 21.88              | 21.83     | 21.79 | 2                | 22.50 |
|             |             | 25               | 0                |                    | 21.88              | 21.79     | 21.73 | 2                | 22.50              | 21.88              | 21.79     | 21.73 | 2                | 22.50 |
|             | 64QAM       | 1                | 0                |                    | 22.46              | 22.45     | 22.39 | 2                | 22.50              | 22.46              | 22.45     | 22.39 | 2                | 22.50 |
|             |             | 1                | 12               |                    | 22.46              | 22.48     | 22.39 | 2                | 22.50              | 22.46              | 22.48     | 22.39 | 2                | 22.50 |
|             |             | 1                | 24               |                    | 22.43              | 22.41     | 22.49 | 2                | 22.50              | 22.43              | 22.41     | 22.49 | 2                | 22.50 |
|             |             | 12               | 0                |                    | 21.33              | 21.25     | 21.31 | 3                | 21.50              | 21.33              | 21.25     | 21.31 | 3                | 21.50 |
|             |             | 12               | 7                |                    | 21.35              | 21.25     | 21.33 | 3                | 21.50              | 21.35              | 21.25     | 21.33 | 3                | 21.50 |
|             |             | 12               | 13               |                    | 21.33              | 21.24     | 21.31 | 3                | 21.50              | 21.33              | 21.24     | 21.31 | 3                | 21.50 |
|             |             | 25               | 0                |                    | 21.29              | 21.25     | 21.37 | 3                | 21.50              | 21.29              | 21.25     | 21.37 | 3                | 21.5  |
| BW<br>(MHz) | Mode        | RB<br>Allocation | RB<br>offset     | Power Mode A (dBm) |                    |           |       |                  | Power Mode B (dBm) |                    |           |       |                  |       |
|             |             |                  |                  | 20415              | 20525              | 20635     | MPR   | Tune-up<br>Limit | 20415              | 20525              | 20635     | MPR   | Tune-up<br>Limit |       |
|             |             |                  |                  | 825.5 MHz          | 836.5 MHz          | 847.5 MHz |       |                  | 825.5 MHz          | 836.5 MHz          | 847.5 MHz |       |                  |       |
| 3 MHz       | QPSK        | 1                | 0                |                    | 23.89              | 23.82     | 23.83 | 0                | 24.50              | 23.89              | 23.82     | 23.83 | 0                | 24.50 |
|             |             | 1                | 8                |                    | 23.98              | 23.88     | 23.87 | 0                | 24.50              | 23.98              | 23.88     | 23.87 | 0                | 24.50 |
|             |             | 1                | 14               |                    | 23.92              | 23.83     | 23.88 | 0                | 24.50              | 23.92              | 23.83     | 23.88 | 0                | 24.50 |
|             |             | 8                | 0                |                    | 22.74              | 22.72     | 22.63 | 1                | 23.50              | 22.74              | 22.72     | 22.63 | 1                | 23.50 |
|             |             | 8                | 4                |                    | 22.79              | 22.70     | 22.66 | 1                | 23.50              | 22.79              | 22.70     | 22.66 | 1                | 23.50 |
|             |             | 8                | 7                |                    | 22.79              | 22.70     | 22.66 | 1                | 23.50              | 22.79              | 22.70     | 22.66 | 1                | 23.50 |
|             | 16QAM       | 15               | 0                |                    | 22.80              | 22.75     | 22.69 | 1                | 23.50              | 22.80              | 22.75     | 22.69 | 1                | 23.50 |
|             |             | 1                | 0                |                    | 23.16              | 23.15     | 23.08 | 1                | 23.50              | 23.16              | 23.15     | 23.08 | 1                | 23.50 |
|             |             | 1                | 8                |                    | 23.25              | 23.16     | 23.20 | 1                | 23.50              | 23.25              | 23.16     | 23.20 | 1                | 23.50 |
|             |             | 1                | 14               |                    | 23.17              | 23.15     | 23.23 | 1                | 23.50              | 23.17              | 23.15     | 23.23 | 1                | 23.50 |
|             |             | 8                | 0                |                    | 21.75              | 21.71     | 21.57 | 2                | 22.50              | 21.75              | 21.71     | 21.57 | 2                | 22.50 |
|             |             | 8                | 4                |                    | 21.79              | 21.68     | 21.64 | 2                | 22.50              | 21.79              | 21.68     | 21.64 | 2                | 22.50 |
|             |             | 8                | 7                |                    | 21.79              | 21.70     | 21.66 | 2                | 22.50              | 21.79              | 21.70     | 21.66 | 2                | 22.50 |
|             |             | 15               | 0                |                    | 21.75              | 21.67     | 21.70 | 2                | 22.50              | 21.75              | 21.67     | 21.70 | 2                | 22.50 |
|             | 64QAM       | 1                | 0                |                    | 22.48              | 22.41     | 22.44 | 2                | 22.50              | 22.48              | 22.41     | 22.44 | 2                | 22.50 |
|             |             | 1                | 8                |                    | 22.43              | 22.47     | 22.50 | 2                | 22.50              | 22.43              | 22.47     | 22.50 | 2                | 22.50 |
|             |             | 1                | 14               |                    | 22.46              | 22.37     | 22.45 | 2                | 22.50              | 22.46              | 22.37     | 22.45 | 2                | 22.50 |
|             |             | 8                | 0                |                    | 21.27              | 21.28     | 21.20 | 3                | 21.50              | 21.27              | 21.28     | 21.20 | 3                | 21.50 |
|             |             | 8                | 4                |                    | 21.25              | 21.27     | 21.25 | 3                | 21.50              | 21.25              | 21.27     | 21.25 | 3                | 21.50 |
|             |             | 8                | 7                |                    | 21.27              | 21.28     | 21.23 | 3                | 21.50              | 21.27              | 21.28     | 21.23 | 3                | 21.50 |
|             |             | 15               | 0                |                    | 21.26              | 21.22     | 21.15 | 3                | 21.50              | 21.26              | 21.22     | 21.15 | 3                | 21.50 |

**LTE Band 5 Measured Results (ANT2) (continued)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |           |           |     |                  | Power Mode B (dBm) |           |           |     |                  |
|-------------|-------|------------------|--------------|--------------------|-----------|-----------|-----|------------------|--------------------|-----------|-----------|-----|------------------|
|             |       |                  |              | 20407              | 20525     | 20643     | MPR | Tune-up<br>Limit | 20407              | 20525     | 20643     | MPR | Tune-up<br>Limit |
|             |       |                  |              | 824.7 MHz          | 836.5 MHz | 848.3 MHz |     |                  | 824.7 MHz          | 836.5 MHz | 848.3 MHz |     |                  |
| 1.4 MHz     | QPSK  | 1                | 0            | 23.97              | 23.88     | 23.89     | 0   | 24.50            | 23.97              | 23.88     | 23.89     | 0   | 24.50            |
|             |       | 1                | 3            | 23.95              | 23.81     | 23.92     | 0   | 24.50            | 23.95              | 23.81     | 23.92     | 0   | 24.50            |
|             |       | 1                | 5            | 23.99              | 23.86     | 23.93     | 0   | 24.50            | 23.99              | 23.86     | 23.93     | 0   | 24.50            |
|             |       | 3                | 0            | 23.74              | 23.73     | 23.76     | 0   | 24.50            | 23.74              | 23.73     | 23.76     | 0   | 24.50            |
|             |       | 3                | 1            | 23.70              | 23.73     | 23.72     | 0   | 24.50            | 23.70              | 23.73     | 23.72     | 0   | 24.50            |
|             |       | 3                | 3            | 23.71              | 23.74     | 23.74     | 0   | 24.50            | 23.71              | 23.74     | 23.74     | 0   | 24.50            |
|             | 16QAM | 6                | 0            | 22.70              | 22.64     | 22.76     | 1   | 23.50            | 22.70              | 22.64     | 22.76     | 1   | 23.50            |
|             |       | 1                | 0            | 23.19              | 23.01     | 23.18     | 1   | 23.50            | 23.19              | 23.01     | 23.18     | 1   | 23.50            |
|             |       | 1                | 3            | 23.08              | 22.99     | 23.21     | 1   | 23.50            | 23.08              | 22.99     | 23.21     | 1   | 23.50            |
|             |       | 1                | 5            | 23.27              | 23.00     | 23.21     | 1   | 23.50            | 23.27              | 23.00     | 23.21     | 1   | 23.50            |
|             |       | 3                | 0            | 22.92              | 22.75     | 22.89     | 1   | 23.50            | 22.92              | 22.75     | 22.89     | 1   | 23.50            |
|             |       | 3                | 1            | 22.89              | 22.75     | 22.85     | 1   | 23.50            | 22.89              | 22.75     | 22.85     | 1   | 23.50            |
|             | 64QAM | 3                | 3            | 22.89              | 22.75     | 22.87     | 1   | 23.50            | 22.89              | 22.75     | 22.87     | 1   | 23.50            |
|             |       | 6                | 0            | 21.80              | 21.63     | 21.64     | 2   | 22.50            | 21.80              | 21.63     | 21.64     | 2   | 22.50            |
|             |       | 1                | 0            | 22.47              | 22.49     | 22.36     | 2   | 22.50            | 22.47              | 22.49     | 22.36     | 2   | 22.50            |
|             |       | 1                | 3            | 22.44              | 22.38     | 22.43     | 2   | 22.50            | 22.44              | 22.38     | 22.43     | 2   | 22.50            |
|             |       | 1                | 5            | 22.46              | 22.48     | 22.47     | 2   | 22.50            | 22.46              | 22.48     | 22.47     | 2   | 22.50            |
|             |       | 3                | 0            | 22.45              | 22.44     | 22.44     | 2   | 22.50            | 22.45              | 22.44     | 22.44     | 2   | 22.50            |
|             | 64QAM | 3                | 1            | 22.39              | 22.41     | 22.42     | 2   | 22.50            | 22.39              | 22.41     | 22.42     | 2   | 22.50            |
|             |       | 3                | 3            | 22.39              | 22.42     | 22.42     | 2   | 22.50            | 22.39              | 22.42     | 22.42     | 2   | 22.50            |
|             |       | 6                | 0            | 21.30              | 21.30     | 21.31     | 3   | 21.50            | 21.30              | 21.30     | 21.31     | 3   | 21.50            |

**LTE Band 7 Measured Results (ANT1)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |          |            |     |                  | Power Mode B (dBm) |          |            |     |                  |
|-------------|-------|------------------|--------------|--------------------|----------|------------|-----|------------------|--------------------|----------|------------|-----|------------------|
|             |       |                  |              | 20850              | 21100    | 21350      | MPR | Tune-up<br>Limit | 20850              | 21100    | 21350      | MPR | Tune-up<br>Limit |
|             |       |                  |              | 2510 MHz           | 2535 MHz | 2560 MHz   |     |                  | 2510 MHz           | 2535 MHz | 2560 MHz   |     |                  |
| 20 MHz      | QPSK  | 1                | 0            | 25.23              | 25.30    | 25.37      | 0   | 25.70            | 21.30              | 21.49    | 21.37      | 0   | 21.75            |
|             |       | 1                | 49           | 25.22              | 25.40    | 25.25      | 0   | 25.70            | 21.70              | 21.70    | 21.70      | 0   | 21.75            |
|             |       | 1                | 99           | 25.33              | 25.26    | 25.26      | 0   | 25.70            | 21.38              | 21.27    | 21.35      | 0   | 21.75            |
|             |       | 50               | 0            | 24.25              | 24.38    | 24.29      | 1   | 24.70            | 21.29              | 21.43    | 21.32      | 0   | 21.75            |
|             |       | 50               | 24           | 24.26              | 24.40    | 24.28      | 1   | 24.70            | 21.70              | 21.70    | 21.70      | 0   | 21.75            |
|             |       | 50               | 50           | 24.26              | 24.25    | 24.19      | 1   | 24.70            | 21.30              | 21.26    | 21.25      | 0   | 21.75            |
|             | 16QAM | 100              | 0            | 24.26              | 24.30    | 24.25      | 1   | 24.70            | 21.70              | 21.70    | 21.70      | 0   | 21.75            |
|             |       | 1                | 0            | 24.53              | 24.51    | 24.67      | 1   | 24.70            | 21.65              | 21.63    | 21.71      | 0   | 21.75            |
|             |       | 1                | 49           | 24.55              | 24.41    | 24.56      | 1   | 24.70            | 21.57              | 21.74    | 21.61      | 0   | 21.75            |
|             |       | 1                | 99           | 24.65              | 24.66    | 24.51      | 1   | 24.70            | 21.72              | 21.63    | 21.68      | 0   | 21.75            |
|             |       | 50               | 0            | 23.26              | 23.40    | 23.31      | 2   | 23.70            | 21.35              | 21.45    | 21.34      | 0   | 21.75            |
|             |       | 50               | 24           | 23.27              | 23.33    | 23.28      | 2   | 23.70            | 21.30              | 21.34    | 21.32      | 0   | 21.75            |
|             | 64QAM | 50               | 50           | 23.30              | 23.30    | 23.24      | 2   | 23.70            | 21.34              | 21.29    | 21.23      | 0   | 21.75            |
|             |       | 100              | 0            | 23.27              | 23.29    | 23.24      | 2   | 23.70            | 21.34              | 21.34    | 21.26      | 0   | 21.75            |
|             |       | 1                | 0            | 23.36              | 23.38    | 23.68      | 2   | 23.70            | 21.73              | 21.72    | 21.60      | 0   | 21.75            |
|             |       | 1                | 49           | 23.32              | 23.61    | 23.54      | 2   | 23.70            | 21.66              | 21.54    | 21.52      | 0   | 21.75            |
|             |       | 1                | 99           | 23.43              | 23.51    | 23.56      | 2   | 23.70            | 21.39              | 21.49    | 21.48      | 0   | 21.75            |
|             |       | 50               | 0            | 22.32              | 22.40    | 22.34      | 3   | 22.70            | 21.70              | 21.37    | 21.73      | 0   | 21.75            |
|             |       | 50               | 24           | 22.69              | 22.35    | 22.67      | 3   | 22.70            | 21.71              | 21.29    | 21.70      | 0   | 21.75            |
|             |       | 50               | 50           | 22.33              | 22.36    | 22.61      | 3   | 22.70            | 21.75              | 21.71    | 21.66      | 0   | 21.75            |
|             |       | 100              | 0            | 22.30              | 22.38    | 22.67      | 3   | 22.70            | 21.71              | 21.27    | 21.70      | 0   | 21.75            |
| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |          |            |     |                  | Power Mode B (dBm) |          |            |     |                  |
|             |       |                  |              | 20825              | 21100    | 21375      | MPR | Tune-up<br>Limit | 20825              | 21100    | 21375      | MPR | Tune-up<br>Limit |
|             |       |                  |              | 2507.5 MHz         | 2535 MHz | 2562.5 MHz |     |                  | 2507.5 MHz         | 2535 MHz | 2562.5 MHz |     |                  |
| 15 MHz      | QPSK  | 1                | 0            | 25.21              | 25.36    | 25.29      | 0   | 25.70            | 21.26              | 21.42    | 21.34      | 0   | 21.75            |
|             |       | 1                | 37           | 25.22              | 25.29    | 25.14      | 0   | 25.70            | 21.26              | 21.32    | 21.71      | 0   | 21.75            |
|             |       | 1                | 74           | 25.23              | 25.17    | 25.27      | 0   | 25.70            | 21.30              | 21.74    | 21.34      | 0   | 21.75            |
|             |       | 36               | 0            | 24.29              | 24.38    | 24.30      | 1   | 24.70            | 21.31              | 21.40    | 21.34      | 0   | 21.75            |
|             |       | 36               | 20           | 24.23              | 24.29    | 24.20      | 1   | 24.70            | 21.27              | 21.33    | 21.26      | 0   | 21.75            |
|             |       | 36               | 39           | 24.25              | 24.23    | 24.20      | 1   | 24.70            | 21.27              | 21.32    | 21.72      | 0   | 21.75            |
|             | 16QAM | 75               | 0            | 24.22              | 24.27    | 24.17      | 1   | 24.70            | 21.28              | 21.36    | 21.68      | 0   | 21.75            |
|             |       | 1                | 0            | 24.46              | 24.68    | 24.59      | 1   | 24.70            | 21.53              | 21.69    | 21.63      | 0   | 21.75            |
|             |       | 1                | 37           | 24.41              | 24.58    | 24.48      | 1   | 24.70            | 21.51              | 21.63    | 21.51      | 0   | 21.75            |
|             |       | 1                | 74           | 24.44              | 24.47    | 24.58      | 1   | 24.70            | 21.59              | 21.58    | 21.57      | 0   | 21.75            |
|             |       | 36               | 0            | 23.27              | 23.38    | 23.28      | 2   | 23.70            | 21.36              | 21.48    | 21.31      | 0   | 21.75            |
|             |       | 36               | 20           | 23.29              | 23.33    | 23.19      | 2   | 23.70            | 21.32              | 21.37    | 21.74      | 0   | 21.75            |
|             | 64QAM | 36               | 39           | 23.27              | 23.28    | 23.20      | 2   | 23.70            | 21.31              | 21.31    | 21.26      | 0   | 21.75            |
|             |       | 75               | 0            | 23.26              | 23.35    | 23.17      | 2   | 23.70            | 21.26              | 21.39    | 21.72      | 0   | 21.75            |
|             |       | 1                | 0            | 23.53              | 23.61    | 23.40      | 2   | 23.70            | 21.45              | 21.45    | 21.35      | 0   | 21.75            |
|             |       | 1                | 37           | 23.50              | 23.46    | 23.67      | 2   | 23.70            | 21.38              | 21.40    | 21.62      | 0   | 21.75            |
|             |       | 1                | 74           | 23.52              | 23.45    | 23.67      | 2   | 23.70            | 21.48              | 21.32    | 21.73      | 0   | 21.75            |
|             |       | 36               | 0            | 22.32              | 22.47    | 22.23      | 3   | 22.70            | 21.71              | 21.33    | 21.72      | 0   | 21.75            |
|             |       | 36               | 20           | 22.68              | 22.41    | 22.63      | 3   | 22.70            | 21.68              | 21.29    | 21.65      | 0   | 21.75            |
|             |       | 36               | 39           | 22.34              | 22.33    | 22.65      | 3   | 22.70            | 21.70              | 21.73    | 21.62      | 0   | 21.75            |
|             |       | 75               | 0            | 22.69              | 22.41    | 22.58      | 3   | 22.70            | 21.66              | 21.26    | 21.60      | 0   | 21.75            |
| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |          |            |     |                  | Power Mode B (dBm) |          |            |     |                  |
|             |       |                  |              | 20800              | 21100    | 21400      | MPR | Tune-up<br>Limit | 20800              | 21100    | 21400      | MPR | Tune-up<br>Limit |
|             |       |                  |              | 2505 MHz           | 2535 MHz | 2565 MHz   |     |                  | 2505 MHz           | 2535 MHz | 2565 MHz   |     |                  |
| 10 MHz      | QPSK  | 1                | 0            | 25.25              | 25.35    | 25.26      | 0   | 25.70            | 21.33              | 21.44    | 21.34      | 0   | 21.75            |
|             |       | 1                | 25           | 25.23              | 25.27    | 25.22      | 0   | 25.70            | 21.32              | 21.32    | 21.26      | 0   | 21.75            |
|             |       | 1                | 49           | 25.20              | 25.22    | 25.34      | 0   | 25.70            | 21.27              | 21.30    | 21.38      | 0   | 21.75            |
|             |       | 25               | 0            | 24.22              | 24.35    | 24.22      | 1   | 24.70            | 21.26              | 21.39    | 21.71      | 0   | 21.75            |
|             |       | 25               | 12           | 24.24              | 24.28    | 24.21      | 1   | 24.70            | 21.28              | 21.30    | 21.75      | 0   | 21.75            |
|             |       | 25               | 25           | 24.21              | 24.21    | 24.35      | 1   | 24.70            | 21.29              | 21.27    | 21.37      | 0   | 21.75            |
|             | 16QAM | 50               | 0            | 24.23              | 24.29    | 24.24      | 1   | 24.70            | 21.28              | 21.35    | 21.25      | 0   | 21.75            |
|             |       | 1                | 0            | 24.48              | 24.64    | 24.62      | 1   | 24.70            | 21.56              | 21.69    | 21.71      | 0   | 21.75            |
|             |       | 1                | 25           | 24.48              | 24.56    | 24.55      | 1   | 24.70            | 21.54              | 21.61    | 21.57      | 0   | 21.75            |
|             |       | 1                | 49           | 24.41              | 24.50    | 24.61      | 1   | 24.70            | 21.50              | 21.55    | 21.69      | 0   | 21.75            |
|             |       | 25               | 0            | 23.23              | 23.39    | 23.25      | 2   | 23.70            | 21.31              | 21.47    | 21.27      | 0   | 21.75            |
|             |       | 25               | 12           | 23.21              | 23.35    | 23.24      | 2   | 23.70            | 21.34              | 21.39    | 21.27      | 0   | 21.75            |
|             | 64QAM | 25               | 25           | 23.26              | 23.24    | 23.36      | 2   | 23.70            | 21.32              | 21.34    | 21.39      | 0   | 21.75            |
|             |       | 50               | 0            | 23.28              | 23.33    | 23.24      | 2   | 23.70            | 21.34              | 21.38    | 21.29      | 0   | 21.75            |
|             |       | 1                | 0            | 23.40              | 23.56    | 23.37      | 2   | 23.70            | 21.37              | 21.47    | 21.34      | 0   | 21.75            |
|             |       | 1                | 25           | 23.31              | 23.46    | 23.64      | 2   | 23.70            | 21.31              | 21.39    | 21.67      | 0   | 21.75            |
|             |       | 1                | 49           | 23.35              | 23.50    | 23.36      | 2   | 23.70            | 21.28              | 21.36    | 21.30      | 0   | 21.75            |
|             |       | 25               | 0            | 22.64              | 22.41    | 22.59      | 3   | 22.70            | 21.73              | 21.30    | 21.61      | 0   | 21.75            |
|             |       | 25               | 12           | 22.69              | 22.38    | 22.62      | 3   | 22.70            | 21.70              | 21.27    | 21.61      | 0   | 21.75            |
|             |       | 25               | 25           | 22.69              | 22.36    | 22.30      | 3   | 22.70            | 21.67              | 21.72    | 21.68      | 0   | 21.75            |
|             |       | 50               | 0            | 22.69              | 22.40    | 22.60      | 3   | 22.70            | 21.72              | 21.26    | 21.57      | 0   | 21.75            |

**LTE Band 7 Measured Results (ANT1) (continued)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |          |            |     |                  | Power Mode B (dBm) |          |            |     |                  |
|-------------|-------|------------------|--------------|--------------------|----------|------------|-----|------------------|--------------------|----------|------------|-----|------------------|
|             |       |                  |              | 20775              | 21100    | 21425      | MPR | Tune-up<br>Limit | 20775              | 21100    | 21425      | MPR | Tune-up<br>Limit |
|             |       |                  |              | 2502.5 MHz         | 2535 MHz | 2567.5 MHz |     |                  | 2502.5 MHz         | 2535 MHz | 2567.5 MHz |     |                  |
| 5 MHz       | QPSK  | 1                | 0            | 25.14              | 25.32    | 25.07      | 0   | 25.70            | 21.71              | 21.41    | 21.66      | 0   | 21.75            |
|             |       | 1                | 12           | 25.13              | 25.24    | 25.20      | 0   | 25.70            | 21.67              | 21.27    | 21.73      | 0   | 21.75            |
|             |       | 1                | 24           | 25.18              | 25.20    | 25.25      | 0   | 25.70            | 21.71              | 21.25    | 21.32      | 0   | 21.75            |
|             |       | 12               | 0            | 24.09              | 24.22    | 24.14      | 1   | 24.70            | 21.63              | 21.74    | 21.64      | 0   | 21.75            |
|             |       | 12               | 7            | 24.05              | 24.19    | 24.16      | 1   | 24.70            | 21.61              | 21.73    | 21.70      | 0   | 21.75            |
|             |       | 12               | 13           | 24.10              | 24.19    | 24.15      | 1   | 24.70            | 21.67              | 21.73    | 21.70      | 0   | 21.75            |
|             |       | 25               | 0            | 24.06              | 24.19    | 24.17      | 1   | 24.70            | 21.60              | 21.72    | 21.71      | 0   | 21.75            |
|             | 16QAM | 1                | 0            | 24.50              | 24.59    | 24.50      | 1   | 24.70            | 21.60              | 21.69    | 21.60      | 0   | 21.75            |
|             |       | 1                | 12           | 24.49              | 24.44    | 24.56      | 1   | 24.70            | 21.54              | 21.58    | 21.62      | 0   | 21.75            |
|             |       | 1                | 24           | 24.47              | 24.45    | 24.58      | 1   | 24.70            | 21.57              | 21.54    | 21.70      | 0   | 21.75            |
|             |       | 12               | 0            | 23.04              | 23.15    | 23.12      | 2   | 23.70            | 21.62              | 21.72    | 21.67      | 0   | 21.75            |
|             |       | 12               | 7            | 23.02              | 23.17    | 23.17      | 2   | 23.70            | 21.60              | 21.72    | 21.72      | 0   | 21.75            |
|             |       | 12               | 13           | 23.03              | 23.20    | 23.17      | 2   | 23.70            | 21.65              | 21.72    | 21.72      | 0   | 21.75            |
|             |       | 25               | 0            | 23.00              | 23.19    | 23.13      | 2   | 23.70            | 21.61              | 21.70    | 21.69      | 0   | 21.75            |
|             | 64QAM | 1                | 0            | 23.49              | 23.30    | 23.30      | 2   | 23.70            | 21.28              | 21.50    | 21.33      | 0   | 21.75            |
|             |       | 1                | 12           | 23.64              | 23.65    | 23.69      | 2   | 23.70            | 21.29              | 21.42    | 21.41      | 0   | 21.75            |
|             |       | 1                | 24           | 23.59              | 23.62    | 23.60      | 2   | 23.70            | 21.75              | 21.38    | 21.40      | 0   | 21.75            |
|             |       | 12               | 0            | 22.30              | 22.31    | 22.67      | 3   | 22.70            | 21.48              | 21.60    | 21.43      | 0   | 21.75            |
|             |       | 12               | 7            | 22.65              | 22.64    | 22.62      | 3   | 22.70            | 21.49              | 21.58    | 21.47      | 0   | 21.75            |
|             |       | 12               | 13           | 22.60              | 22.63    | 22.61      | 3   | 22.70            | 21.55              | 21.60    | 21.45      | 0   | 21.75            |
|             |       | 25               | 0            | 22.43              | 22.45    | 22.44      | 3   | 22.70            | 21.46              | 21.59    | 21.45      | 0   | 21.75            |

**LTE Band 7 Measured Results (ANT2)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |          |          |     |                  | Power Mode B (dBm) |          |          |      |                  |
|-------------|-------|------------------|--------------|--------------------|----------|----------|-----|------------------|--------------------|----------|----------|------|------------------|
|             |       |                  |              | 20850              | 21100    | 21350    | MPR | Tune-up<br>Limit | 20850              | 21100    | 21350    | MPR  | Tune-up<br>Limit |
|             |       |                  |              | 2510 MHz           | 2535 MHz | 2560 MHz |     |                  | 2510 MHz           | 2535 MHz | 2560 MHz |      |                  |
| 20 MHz      | QPSK  | 1                | 0            | 18.44              | 18.40    | 18.40    | 0   | 18.75            | 20.46              | 20.47    | 20.30    | 0    | 20.50            |
|             |       | 1                | 49           | 18.60              | 18.40    | 18.40    | 0   | 18.75            | 20.50              | 20.50    | 20.32    | 0    | 20.50            |
|             |       | 1                | 99           | 18.42              | 18.40    | 18.40    | 0   | 18.75            | 20.45              | 20.46    | 20.30    | 0    | 20.50            |
|             |       | 50               | 0            | 18.44              | 18.30    | 18.30    | 0   | 18.75            | 20.30              | 20.30    | 20.30    | 0    | 20.50            |
|             |       | 50               | 24           | 18.60              | 18.40    | 18.40    | 0   | 18.75            | 20.34              | 20.50    | 20.33    | 0    | 20.50            |
|             |       | 50               | 50           | 18.44              | 18.30    | 18.40    | 0   | 18.75            | 20.30              | 20.30    | 20.30    | 0    | 20.50            |
|             | 16QAM | 100              | 0            | 18.50              | 18.50    | 18.40    | 0   | 18.75            | 20.35              | 20.44    | 20.32    | 0    | 20.50            |
|             |       | 1                | 0            | 18.44              | 18.44    | 18.43    | 0   | 18.75            | 20.42              | 20.40    | 20.42    | 0    | 20.50            |
|             |       | 1                | 49           | 18.45              | 18.50    | 18.43    | 0   | 18.75            | 20.40              | 20.46    | 20.47    | 0    | 20.50            |
|             |       | 1                | 99           | 18.44              | 18.42    | 18.48    | 0   | 18.75            | 20.42              | 20.41    | 20.49    | 0    | 20.50            |
|             |       | 50               | 0            | 18.44              | 18.45    | 18.43    | 0   | 18.75            | 20.30              | 20.42    | 20.29    | 0    | 20.50            |
|             |       | 50               | 24           | 18.41              | 18.44    | 18.43    | 0   | 18.75            | 20.34              | 20.43    | 20.30    | 0    | 20.50            |
|             | 64QAM | 50               | 50           | 18.45              | 18.49    | 18.50    | 0   | 18.75            | 20.39              | 20.48    | 20.37    | 0    | 20.50            |
|             |       | 100              | 0            | 18.48              | 18.45    | 18.43    | 0   | 18.75            | 20.36              | 20.43    | 20.29    | 0    | 20.50            |
|             |       | 1                | 0            | 18.29              | 18.61    | 18.44    | 0   | 18.75            | 20.25              | 20.47    | 20.48    | 0    | 20.50            |
|             |       | 1                | 49           | 18.38              | 18.51    | 18.41    | 0   | 18.75            | 20.32              | 20.36    | 20.34    | 0    | 20.50            |
|             |       | 1                | 99           | 18.50              | 18.52    | 18.46    | 0   | 18.75            | 20.38              | 20.40    | 20.39    | 0    | 20.50            |
|             |       | 50               | 0            | 18.27              | 18.22    | 18.09    | 0   | 18.75            | 19.40              | 19.29    | 19.39    | 0.25 | 20.25            |
| 15 MHz      | QPSK  | 50               | 24           | 18.27              | 18.19    | 18.04    | 0   | 18.75            | 19.32              | 19.28    | 19.35    | 0.25 | 20.25            |
|             |       | 50               | 50           | 18.39              | 18.18    | 18.02    | 0   | 18.75            | 19.43              | 19.28    | 19.35    | 0.25 | 20.25            |
|             |       | 100              | 0            | 18.28              | 18.18    | 18.02    | 0   | 18.75            | 19.32              | 19.26    | 19.34    | 0.25 | 20.25            |
|             | 16QAM | 1                | 0            | 18.50              | 18.47    | 18.46    | 0   | 18.75            | 20.46              | 20.50    | 20.50    | 0    | 20.50            |
|             |       | 1                | 37           | 18.45              | 18.40    | 18.40    | 0   | 18.75            | 20.45              | 20.50    | 20.44    | 0    | 20.50            |
|             |       | 1                | 74           | 18.44              | 18.49    | 18.43    | 0   | 18.75            | 20.41              | 20.42    | 20.40    | 0    | 20.50            |
|             | 64QAM | 36               | 0            | 18.43              | 18.48    | 18.44    | 0   | 18.75            | 20.49              | 20.44    | 20.41    | 0    | 20.50            |
|             |       | 36               | 20           | 18.45              | 18.46    | 18.43    | 0   | 18.75            | 20.48              | 20.46    | 20.50    | 0    | 20.50            |
|             |       | 36               | 39           | 18.46              | 18.48    | 18.41    | 0   | 18.75            | 20.46              | 20.48    | 20.41    | 0    | 20.50            |
| 10 MHz      | QPSK  | 75               | 0            | 18.42              | 18.49    | 18.41    | 0   | 18.75            | 20.43              | 20.43    | 20.49    | 0    | 20.50            |
|             |       | 1                | 0            | 18.48              | 18.48    | 18.42    | 0   | 18.75            | 20.42              | 20.49    | 20.42    | 0    | 20.50            |
|             |       | 1                | 37           | 18.42              | 18.49    | 18.43    | 0   | 18.75            | 20.47              | 20.48    | 20.46    | 0    | 20.50            |
|             | 16QAM | 1                | 74           | 18.49              | 18.43    | 18.50    | 0   | 18.75            | 20.49              | 20.47    | 20.46    | 0    | 20.50            |
|             |       | 36               | 0            | 18.46              | 18.48    | 18.40    | 0   | 18.75            | 20.29              | 20.44    | 20.29    | 0    | 20.50            |
|             |       | 36               | 20           | 18.43              | 18.44    | 18.48    | 0   | 18.75            | 20.30              | 20.37    | 20.40    | 0    | 20.50            |
|             | 64QAM | 36               | 39           | 18.48              | 18.50    | 18.43    | 0   | 18.75            | 20.37              | 20.43    | 20.39    | 0    | 20.50            |
|             |       | 75               | 0            | 18.40              | 18.41    | 18.45    | 0   | 18.75            | 20.29              | 20.34    | 20.39    | 0    | 20.50            |
| 10 MHz      | QPSK  | 1                | 0            | 18.48              | 18.48    | 18.15    | 0   | 18.75            | 20.41              | 20.45    | 20.12    | 0    | 20.50            |
|             |       | 1                | 37           | 18.46              | 18.44    | 18.16    | 0   | 18.75            | 20.43              | 20.41    | 20.07    | 0    | 20.50            |
|             |       | 1                | 74           | 18.58              | 18.36    | 18.26    | 0   | 18.75            | 20.43              | 20.41    | 20.26    | 0    | 20.50            |
|             | 16QAM | 36               | 0            | 18.16              | 18.26    | 18.08    | 0   | 18.75            | 19.31              | 19.32    | 19.35    | 0.25 | 20.25            |
|             |       | 36               | 20           | 18.27              | 18.28    | 18.06    | 0   | 18.75            | 19.30              | 19.35    | 19.36    | 0.25 | 20.25            |
|             |       | 36               | 39           | 18.32              | 18.23    | 18.11    | 0   | 18.75            | 19.33              | 19.34    | 19.34    | 0.25 | 20.25            |
|             | 64QAM | 75               | 0            | 18.27              | 18.23    | 18.01    | 0   | 18.75            | 19.26              | 19.30    | 19.30    | 0.25 | 20.25            |
|             |       | 1                | 0            | 18.49              | 18.41    | 18.45    | 0   | 18.75            | 20.40              | 20.43    | 20.42    | 0    | 20.50            |
|             | QPSK  | 1                | 25           | 18.50              | 18.43    | 18.43    | 0   | 18.75            | 20.43              | 20.46    | 20.50    | 0    | 20.50            |
|             |       | 1                | 49           | 18.49              | 18.49    | 18.43    | 0   | 18.75            | 20.41              | 20.41    | 20.49    | 0    | 20.50            |
|             |       | 25               | 0            | 18.46              | 18.47    | 18.41    | 0   | 18.75            | 20.49              | 20.44    | 20.47    | 0    | 20.50            |
|             |       | 25               | 12           | 18.47              | 18.44    | 18.41    | 0   | 18.75            | 20.50              | 20.49    | 20.46    | 0    | 20.50            |
|             | 16QAM | 25               | 25           | 18.44              | 18.47    | 18.48    | 0   | 18.75            | 20.48              | 20.50    | 20.41    | 0    | 20.50            |
|             |       | 50               | 0            | 18.48              | 18.45    | 18.41    | 0   | 18.75            | 20.41              | 20.48    | 20.46    | 0    | 20.50            |
| 10 MHz      | QPSK  | 1                | 0            | 18.49              | 18.41    | 18.41    | 0   | 18.75            | 20.45              | 20.49    | 20.43    | 0    | 20.50            |
|             |       | 1                | 25           | 18.50              | 18.48    | 18.48    | 0   | 18.75            | 20.45              | 20.45    | 20.46    | 0    | 20.50            |
|             |       | 1                | 49           | 18.41              | 18.45    | 18.42    | 0   | 18.75            | 20.47              | 20.48    | 20.45    | 0    | 20.50            |
|             | 16QAM | 25               | 0            | 18.40              | 18.42    | 18.45    | 0   | 18.75            | 20.26              | 20.43    | 20.39    | 0    | 20.50            |
|             |       | 25               | 12           | 18.50              | 18.48    | 18.46    | 0   | 18.75            | 20.27              | 20.36    | 20.38    | 0    | 20.50            |
|             |       | 25               | 25           | 18.47              | 18.40    | 18.42    | 0   | 18.75            | 20.34              | 20.36    | 20.40    | 0    | 20.50            |
|             | 64QAM | 50               | 0            | 18.40              | 18.48    | 18.45    | 0   | 18.75            | 20.28              | 20.36    | 20.39    | 0    | 20.50            |
|             |       | 1                | 0            | 18.32              | 18.49    | 18.19    | 0   | 18.75            | 20.35              | 20.44    | 20.17    | 0    | 20.50            |
|             |       | 1                | 25           | 18.32              | 18.41    | 18.13    | 0   | 18.75            | 20.28              | 20.43    | 20.19    | 0    | 20.50            |
|             |       | 1                | 49           | 18.38              | 18.34    | 18.27    | 0   | 18.75            | 20.43              | 20.45    | 20.41    | 0    | 20.50            |
|             |       | 25               | 0            | 18.19              | 18.21    | 17.98    | 0   | 18.75            | 19.33              | 19.29    | 19.33    | 0.25 | 20.25            |
|             |       | 25               | 12           | 18.24              | 18.20    | 18.06    | 0   | 18.75            | 19.35              | 19.29    | 19.35    | 0.25 | 20.25            |
|             |       | 25               | 25           | 18.29              | 18.18    | 18.16    | 0   | 18.75            | 19.32              | 19.30    | 19.26    | 0.25 | 20.25            |
|             |       | 50               | 0            | 18.23              | 18.18    | 18.07    | 0   | 18.75            | 19.25              | 19.27    | 19.38    | 0.25 | 20.25            |

**LTE Band 7 Measured Results (ANT2) (continued)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |          |            |     |                  | Power Mode B (dBm) |          |            |      |                  |
|-------------|-------|------------------|--------------|--------------------|----------|------------|-----|------------------|--------------------|----------|------------|------|------------------|
|             |       |                  |              | 20775              | 21100    | 21425      | MPR | Tune-up<br>Limit | 20775              | 21100    | 21425      | MPR  | Tune-up<br>Limit |
|             |       |                  |              | 2502.5 MHz         | 2535 MHz | 2567.5 MHz |     |                  | 2502.5 MHz         | 2535 MHz | 2567.5 MHz |      |                  |
| 5 MHz       | QPSK  | 1                | 0            | 18.40              | 18.40    | 18.47      | 0   | 18.75            | 20.34              | 20.48    | 20.47      | 0    | 20.50            |
|             |       | 1                | 12           | 18.37              | 18.46    | 18.47      | 0   | 18.75            | 20.34              | 20.50    | 20.47      | 0    | 20.50            |
|             |       | 1                | 24           | 18.40              | 18.49    | 18.50      | 0   | 18.75            | 20.38              | 20.41    | 20.48      | 0    | 20.50            |
|             |       | 12               | 0            | 18.32              | 18.41    | 18.47      | 0   | 18.75            | 20.30              | 20.45    | 20.41      | 0    | 20.50            |
|             |       | 12               | 7            | 18.32              | 18.42    | 18.43      | 0   | 18.75            | 20.30              | 20.46    | 20.43      | 0    | 20.50            |
|             |       | 12               | 13           | 18.33              | 18.42    | 18.46      | 0   | 18.75            | 20.30              | 20.46    | 20.48      | 0    | 20.50            |
|             |       | 25               | 0            | 18.33              | 18.40    | 18.43      | 0   | 18.75            | 20.30              | 20.45    | 20.43      | 0    | 20.50            |
|             | 16QAM | 1                | 0            | 18.45              | 18.48    | 18.47      | 0   | 18.75            | 20.43              | 20.42    | 20.45      | 0    | 20.50            |
|             |       | 1                | 12           | 18.48              | 18.48    | 18.44      | 0   | 18.75            | 20.42              | 20.43    | 20.43      | 0    | 20.50            |
|             |       | 1                | 24           | 18.44              | 18.41    | 18.47      | 0   | 18.75            | 20.43              | 20.48    | 20.47      | 0    | 20.50            |
|             |       | 12               | 0            | 18.29              | 18.48    | 18.42      | 0   | 18.75            | 20.02              | 20.17    | 20.19      | 0    | 20.50            |
|             |       | 12               | 7            | 18.30              | 18.49    | 18.46      | 0   | 18.75            | 20.02              | 20.21    | 20.22      | 0    | 20.50            |
|             |       | 12               | 13           | 18.31              | 18.50    | 18.40      | 0   | 18.75            | 20.02              | 20.25    | 20.28      | 0    | 20.50            |
|             |       | 25               | 0            | 18.32              | 18.45    | 18.41      | 0   | 18.75            | 20.03              | 20.23    | 20.15      | 0    | 20.50            |
|             | 64QAM | 1                | 0            | 18.38              | 18.40    | 18.31      | 0   | 18.75            | 20.45              | 20.48    | 20.21      | 0    | 20.50            |
|             |       | 1                | 12           | 18.34              | 18.37    | 18.34      | 0   | 18.75            | 20.35              | 20.49    | 20.30      | 0    | 20.50            |
|             |       | 1                | 24           | 18.35              | 18.43    | 18.45      | 0   | 18.75            | 20.43              | 20.49    | 20.41      | 0    | 20.50            |
|             |       | 12               | 0            | 18.07              | 18.06    | 17.96      | 0   | 18.75            | 19.44              | 19.48    | 19.47      | 0.25 | 20.25            |
|             |       | 12               | 7            | 18.05              | 18.01    | 18.01      | 0   | 18.75            | 19.37              | 19.47    | 19.52      | 0.25 | 20.25            |
|             |       | 12               | 13           | 17.98              | 18.02    | 18.01      | 0   | 18.75            | 19.37              | 19.50    | 19.52      | 0.25 | 20.25            |
|             |       | 25               | 0            | 17.98              | 18.04    | 18.00      | 0   | 18.75            | 19.41              | 19.47    | 19.51      | 0.25 | 20.25            |

**LTE Band 7 Measured Results (ANT3)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |          |          |     |                  | Power Mode B (dBm) |          |          |     |                  |
|-------------|-------|------------------|--------------|--------------------|----------|----------|-----|------------------|--------------------|----------|----------|-----|------------------|
|             |       |                  |              | 20850              | 21100    | 21350    | MPR | Tune-up<br>Limit | 20850              | 21100    | 21350    | MPR | Tune-up<br>Limit |
|             |       |                  |              | 2510 MHz           | 2535 MHz | 2560 MHz |     |                  | 2510 MHz           | 2535 MHz | 2560 MHz |     |                  |
| 20 MHz      | QPSK  | 1                | 0            | 24.89              | 24.18    | 24.30    | 0   | 25.00            | 21.40              | 21.50    | 21.30    | 0   | 21.75            |
|             |       | 1                | 49           | 24.50              | 24.50    | 24.50    | 0   | 25.00            | 21.40              | 21.50    | 21.75    | 0   | 21.75            |
|             |       | 1                | 99           | 24.22              | 24.21    | 24.30    | 0   | 25.00            | 21.40              | 21.50    | 21.64    | 0   | 21.75            |
|             |       | 50               | 0            | 23.53              | 23.16    | 23.42    | 1   | 24.00            | 21.38              | 21.40    | 21.72    | 0   | 21.75            |
|             |       | 50               | 24           | 23.50              | 23.50    | 23.50    | 1   | 24.00            | 21.40              | 21.40    | 21.75    | 0   | 21.75            |
|             |       | 50               | 50           | 23.22              | 23.22    | 23.30    | 1   | 24.00            | 21.40              | 21.40    | 21.64    | 0   | 21.75            |
|             | 16QAM | 100              | 0            | 23.50              | 23.50    | 23.50    | 1   | 24.00            | 21.40              | 21.40    | 21.40    | 0   | 21.75            |
|             |       | 1                | 0            | 23.22              | 23.46    | 23.57    | 1   | 24.00            | 21.73              | 21.07    | 21.13    | 0   | 21.75            |
|             |       | 1                | 49           | 23.42              | 23.32    | 23.66    | 1   | 24.00            | 21.42              | 21.39    | 21.26    | 0   | 21.75            |
|             |       | 1                | 99           | 23.55              | 23.50    | 23.52    | 1   | 24.00            | 21.09              | 21.02    | 21.11    | 0   | 21.75            |
|             |       | 50               | 0            | 22.55              | 22.20    | 22.44    | 2   | 23.00            | 21.60              | 21.59    | 21.68    | 0   | 21.75            |
|             |       | 50               | 24           | 22.12              | 22.17    | 22.50    | 2   | 23.00            | 21.69              | 21.59    | 21.69    | 0   | 21.75            |
|             | 64QAM | 50               | 50           | 22.26              | 22.26    | 22.35    | 2   | 23.00            | 21.53              | 21.72    | 21.50    | 0   | 21.75            |
|             |       | 100              | 0            | 22.10              | 22.14    | 22.50    | 2   | 23.00            | 21.66              | 21.60    | 21.65    | 0   | 21.75            |
|             |       | 1                | 0            | 22.12              | 22.50    | 22.62    | 2   | 23.00            | 21.37              | 21.33    | 21.67    | 0   | 21.75            |
|             |       | 1                | 49           | 22.28              | 22.36    | 22.78    | 2   | 23.00            | 21.53              | 21.17    | 21.31    | 0   | 21.75            |
|             |       | 1                | 99           | 22.39              | 22.55    | 22.70    | 2   | 23.00            | 21.61              | 21.28    | 21.59    | 0   | 21.75            |
|             |       | 50               | 0            | 21.24              | 21.22    | 21.52    | 3   | 22.00            | 21.67              | 21.68    | 21.01    | 0   | 21.75            |
| 15 MHz      | QPSK  | 50               | 24           | 21.30              | 21.22    | 21.54    | 3   | 22.00            | 21.72              | 21.71    | 21.06    | 0   | 21.75            |
|             |       | 50               | 50           | 21.39              | 21.33    | 21.42    | 3   | 22.00            | 21.30              | 21.39    | 21.53    | 0   | 21.75            |
|             |       | 100              | 0            | 21.29              | 21.20    | 21.55    | 3   | 22.00            | 21.67              | 21.68    | 21.55    | 0   | 21.75            |
|             | 16QAM | 1                | 0            | 24.88              | 24.14    | 24.46    | 0   | 25.00            | 21.42              | 21.60    | 21.65    | 0   | 21.75            |
|             |       | 1                | 37           | 24.98              | 24.11    | 24.32    | 0   | 25.00            | 21.56              | 21.60    | 21.52    | 0   | 21.75            |
|             |       | 1                | 74           | 24.23              | 24.26    | 24.29    | 0   | 25.00            | 21.45              | 21.69    | 21.49    | 0   | 21.75            |
|             | 64QAM | 36               | 0            | 23.13              | 23.17    | 23.51    | 1   | 24.00            | 21.25              | 21.13    | 21.50    | 0   | 21.75            |
|             |       | 36               | 20           | 23.58              | 23.18    | 23.39    | 1   | 24.00            | 21.10              | 21.15    | 21.36    | 0   | 21.75            |
|             | 16QAM | 36               | 39           | 23.19              | 23.25    | 23.36    | 1   | 24.00            | 21.21              | 21.22    | 21.35    | 0   | 21.75            |
|             |       | 75               | 0            | 23.53              | 23.16    | 23.37    | 1   | 24.00            | 21.07              | 21.14    | 21.35    | 0   | 21.75            |
|             |       | 1                | 0            | 23.96              | 23.42    | 23.80    | 1   | 24.00            | 21.04              | 21.40    | 21.69    | 0   | 21.75            |
|             | 64QAM | 1                | 37           | 23.17              | 23.36    | 23.59    | 1   | 24.00            | 21.26              | 21.36    | 21.57    | 0   | 21.75            |
|             |       | 1                | 74           | 23.46              | 23.50    | 23.52    | 1   | 24.00            | 21.52              | 21.49    | 21.58    | 0   | 21.75            |
|             | 16QAM | 36               | 0            | 22.18              | 22.21    | 22.51    | 2   | 23.00            | 21.13              | 21.16    | 21.55    | 0   | 21.75            |
|             |       | 36               | 20           | 22.03              | 22.21    | 22.42    | 2   | 23.00            | 21.05              | 21.17    | 21.40    | 0   | 21.75            |
|             |       | 36               | 39           | 22.13              | 22.28    | 22.39    | 2   | 23.00            | 21.22              | 21.26    | 21.38    | 0   | 21.75            |
|             |       | 75               | 0            | 22.98              | 22.17    | 22.39    | 2   | 23.00            | 21.04              | 21.16    | 21.34    | 0   | 21.75            |
|             | 64QAM | 1                | 0            | 22.03              | 22.35    | 22.71    | 2   | 23.00            | 21.14              | 21.33    | 21.66    | 0   | 21.75            |
|             |       | 1                | 37           | 22.12              | 22.36    | 22.56    | 2   | 23.00            | 21.27              | 21.28    | 21.51    | 0   | 21.75            |
|             |       | 1                | 74           | 22.34              | 22.41    | 22.54    | 2   | 23.00            | 21.51              | 21.42    | 21.47    | 0   | 21.75            |
|             |       | 36               | 0            | 21.24              | 21.19    | 21.66    | 3   | 22.00            | 21.27              | 21.21    | 21.65    | 0   | 21.75            |
|             |       | 36               | 20           | 21.10              | 21.20    | 21.54    | 3   | 22.00            | 21.12              | 21.22    | 21.47    | 0   | 21.75            |
|             |       | 36               | 39           | 21.21              | 21.30    | 21.53    | 3   | 22.00            | 21.22              | 21.31    | 21.48    | 0   | 21.75            |
|             |       | 75               | 0            | 21.11              | 21.17    | 21.48    | 3   | 22.00            | 21.60              | 21.68    | 21.40    | 0   | 21.75            |
| 10 MHz      | QPSK  | 1                | 0            | 24.93              | 24.05    | 24.39    | 0   | 25.00            | 21.41              | 21.58    | 21.66    | 0   | 21.75            |
|             |       | 1                | 25           | 24.16              | 24.56    | 24.30    | 0   | 25.00            | 21.62              | 21.60    | 21.52    | 0   | 21.75            |
|             |       | 1                | 49           | 24.21              | 24.18    | 24.35    | 0   | 25.00            | 21.66              | 21.47    | 21.51    | 0   | 21.75            |
|             |       | 25               | 0            | 23.19              | 23.11    | 23.34    | 1   | 24.00            | 21.16              | 21.14    | 21.35    | 0   | 21.75            |
|             |       | 25               | 12           | 23.12              | 23.10    | 23.34    | 1   | 24.00            | 21.10              | 21.13    | 21.33    | 0   | 21.75            |
|             |       | 25               | 25           | 23.55              | 23.16    | 23.32    | 1   | 24.00            | 21.05              | 21.26    | 21.34    | 0   | 21.75            |
|             | 16QAM | 50               | 0            | 23.13              | 23.11    | 23.33    | 1   | 24.00            | 21.11              | 21.14    | 21.34    | 0   | 21.75            |
|             |       | 1                | 0            | 23.12              | 23.33    | 23.66    | 1   | 24.00            | 21.13              | 21.44    | 21.70    | 0   | 21.75            |
|             |       | 1                | 25           | 23.32              | 23.31    | 23.50    | 1   | 24.00            | 21.29              | 21.42    | 21.60    | 0   | 21.75            |
|             |       | 1                | 49           | 23.36              | 23.36    | 23.61    | 1   | 24.00            | 21.41              | 21.57    | 21.57    | 0   | 21.75            |
|             |       | 25               | 0            | 22.21              | 22.13    | 22.40    | 2   | 23.00            | 21.18              | 21.16    | 21.40    | 0   | 21.75            |
|             |       | 25               | 12           | 22.11              | 22.14    | 22.36    | 2   | 23.00            | 21.10              | 21.17    | 21.37    | 0   | 21.75            |
|             | 64QAM | 25               | 25           | 22.53              | 22.23    | 22.35    | 2   | 23.00            | 21.06              | 21.28    | 21.37    | 0   | 21.75            |
|             |       | 50               | 0            | 22.10              | 22.16    | 22.34    | 2   | 23.00            | 21.14              | 21.16    | 21.37    | 0   | 21.75            |
|             |       | 1                | 0            | 22.56              | 22.30    | 22.56    | 2   | 23.00            | 21.09              | 21.19    | 21.58    | 0   | 21.75            |
|             |       | 1                | 25           | 22.16              | 22.38    | 22.51    | 2   | 23.00            | 21.14              | 21.22    | 21.55    | 0   | 21.75            |
|             |       | 1                | 49           | 22.31              | 22.54    | 22.51    | 2   | 23.00            | 21.28              | 21.34    | 21.56    | 0   | 21.75            |
|             |       | 25               | 0            | 21.23              | 21.23    | 21.47    | 3   | 22.00            | 21.17              | 21.18    | 21.41    | 0   | 21.75            |
|             | 16QAM | 25               | 12           | 21.20              | 21.25    | 21.45    | 3   | 22.00            | 21.11              | 21.19    | 21.38    | 0   | 21.75            |
|             |       | 25               | 25           | 21.15              | 21.36    | 21.44    | 3   | 22.00            | 21.55              | 21.29    | 21.39    | 0   | 21.75            |
|             |       | 50               | 0            | 21.28              | 21.26    | 21.46    | 3   | 22.00            | 21.66              | 21.20    | 21.39    | 0   | 21.75            |

**LTE Band 7 Measured Results (ANT3) (continued)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |          |            |     |                  | Power Mode B (dBm) |          |            |     |                  |
|-------------|-------|------------------|--------------|--------------------|----------|------------|-----|------------------|--------------------|----------|------------|-----|------------------|
|             |       |                  |              | 20775              | 21100    | 21425      | MPR | Tune-up<br>Limit | 20775              | 21100    | 21425      | MPR | Tune-up<br>Limit |
|             |       |                  |              | 2502.5 MHz         | 2535 MHz | 2567.5 MHz |     |                  | 2502.5 MHz         | 2535 MHz | 2567.5 MHz |     |                  |
| 5 MHz       | QPSK  | 1                | 0            | 24.84              | 24.00    | 24.24      | 0   | 25.00            | 21.27              | 21.50    | 21.57      | 0   | 21.75            |
|             |       | 1                | 12           | 24.15              | 24.99    | 24.25      | 0   | 25.00            | 21.52              | 21.53    | 21.52      | 0   | 21.75            |
|             |       | 1                | 24           | 24.13              | 24.12    | 24.33      | 0   | 25.00            | 21.57              | 21.68    | 21.59      | 0   | 21.75            |
|             |       | 12               | 0            | 23.90              | 23.70    | 23.25      | 1   | 24.00            | 21.34              | 21.02    | 21.25      | 0   | 21.75            |
|             |       | 12               | 7            | 23.04              | 23.98    | 23.22      | 1   | 24.00            | 21.49              | 21.02    | 21.22      | 0   | 21.75            |
|             |       | 12               | 13           | 23.16              | 23.98    | 23.20      | 1   | 24.00            | 21.12              | 21.02    | 21.19      | 0   | 21.75            |
|             |       | 25               | 0            | 23.04              | 23.98    | 23.20      | 1   | 24.00            | 21.01              | 21.00    | 21.20      | 0   | 21.75            |
|             | 16QAM | 1                | 0            | 23.14              | 23.20    | 23.58      | 1   | 24.00            | 21.11              | 21.29    | 21.64      | 0   | 21.75            |
|             |       | 1                | 12           | 23.34              | 23.23    | 23.55      | 1   | 24.00            | 21.36              | 21.28    | 21.58      | 0   | 21.75            |
|             |       | 1                | 24           | 23.40              | 23.33    | 23.64      | 1   | 24.00            | 21.39              | 21.43    | 21.69      | 0   | 21.75            |
|             |       | 12               | 0            | 22.87              | 22.98    | 22.27      | 2   | 23.00            | 21.32              | 21.46    | 21.23      | 0   | 21.75            |
|             |       | 12               | 7            | 22.70              | 23.00    | 22.22      | 2   | 23.00            | 21.47              | 21.49    | 21.22      | 0   | 21.75            |
|             |       | 12               | 13           | 22.09              | 22.01    | 22.21      | 2   | 23.00            | 21.58              | 21.48    | 21.21      | 0   | 21.75            |
|             |       | 25               | 0            | 22.99              | 22.94    | 22.16      | 2   | 23.00            | 21.48              | 21.43    | 21.17      | 0   | 21.75            |
|             | 64QAM | 1                | 0            | 22.85              | 22.50    | 22.21      | 2   | 23.00            | 20.95              | 21.29    | 21.57      | 0   | 21.75            |
|             |       | 1                | 12           | 22.14              | 22.38    | 22.40      | 2   | 23.00            | 21.18              | 21.28    | 21.59      | 0   | 21.75            |
|             |       | 1                | 24           | 22.09              | 22.27    | 22.31      | 2   | 23.00            | 21.22              | 21.38    | 21.59      | 0   | 21.75            |
|             |       | 12               | 0            | 21.84              | 21.32    | 21.31      | 3   | 22.00            | 21.40              | 21.40    | 21.74      | 0   | 21.75            |
|             |       | 12               | 7            | 21.98              | 21.21    | 21.24      | 3   | 22.00            | 21.53              | 21.41    | 21.26      | 0   | 21.75            |
|             |       | 12               | 13           | 21.98              | 21.19    | 21.21      | 3   | 22.00            | 21.64              | 21.42    | 21.74      | 0   | 21.75            |
|             |       | 25               | 0            | 21.18              | 21.19    | 21.22      | 3   | 22.00            | 21.55              | 21.45    | 21.71      | 0   | 21.75            |

**LTE Band 7 Measured Results (ANT4)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |          |          |     |                  | Power Mode B (dBm) |          |          |     |                  |
|-------------|-------|------------------|--------------|--------------------|----------|----------|-----|------------------|--------------------|----------|----------|-----|------------------|
|             |       |                  |              | 20850              | 21100    | 21350    | MPR | Tune-up<br>Limit | 20850              | 21100    | 21350    | MPR | Tune-up<br>Limit |
|             |       |                  |              | 2510 MHz           | 2535 MHz | 2560 MHz |     |                  | 2510 MHz           | 2535 MHz | 2560 MHz |     |                  |
| 20 MHz      | QPSK  | 1                | 0            | 16.72              | 16.28    | 16.10    | 0   | 17.00            | 17.96              | 17.51    | 17.42    | 0   | 18.25            |
|             |       | 1                | 49           | 17.00              | 16.70    | 16.80    | 0   | 17.00            | 18.10              | 18.00    | 17.80    | 0   | 18.25            |
|             |       | 1                | 99           | 16.43              | 16.24    | 16.21    | 0   | 17.00            | 17.57              | 17.36    | 17.57    | 0   | 18.25            |
|             |       | 50               | 0            | 16.68              | 16.13    | 16.17    | 0   | 17.00            | 17.94              | 17.43    | 17.39    | 0   | 18.25            |
|             |       | 50               | 24           | 17.00              | 16.70    | 16.90    | 0   | 17.00            | 18.00              | 18.00    | 17.80    | 0   | 18.25            |
|             |       | 50               | 50           | 16.46              | 16.58    | 16.20    | 0   | 17.00            | 17.66              | 17.28    | 17.52    | 0   | 18.25            |
|             | 16QAM | 100              | 0            | 16.70              | 16.70    | 16.60    | 0   | 17.00            | 17.80              | 17.80    | 17.80    | 0   | 18.25            |
|             |       | 1                | 0            | 16.70              | 16.65    | 16.49    | 0   | 17.00            | 18.08              | 17.94    | 17.69    | 0   | 18.25            |
|             |       | 1                | 49           | 16.47              | 16.45    | 16.59    | 0   | 17.00            | 18.03              | 17.67    | 17.88    | 0   | 18.25            |
|             |       | 1                | 99           | 16.70              | 16.48    | 16.60    | 0   | 17.00            | 17.89              | 17.76    | 17.82    | 0   | 18.25            |
|             |       | 50               | 0            | 16.72              | 16.23    | 16.17    | 0   | 17.00            | 17.92              | 17.46    | 17.46    | 0   | 18.25            |
|             |       | 50               | 24           | 16.59              | 16.12    | 16.31    | 0   | 17.00            | 17.78              | 17.33    | 17.59    | 0   | 18.25            |
|             | 64QAM | 50               | 50           | 16.53              | 16.04    | 16.27    | 0   | 17.00            | 17.68              | 17.26    | 17.57    | 0   | 18.25            |
|             |       | 100              | 0            | 16.59              | 16.13    | 16.29    | 0   | 17.00            | 17.80              | 17.35    | 17.56    | 0   | 18.25            |
|             |       | 1                | 0            | 16.91              | 16.92    | 16.83    | 0   | 17.00            | 18.21              | 17.67    | 17.56    | 0   | 18.25            |
|             |       | 1                | 49           | 16.95              | 16.99    | 16.99    | 0   | 17.00            | 18.13              | 17.52    | 17.63    | 0   | 18.25            |
|             |       | 1                | 99           | 16.94              | 16.98    | 16.94    | 0   | 17.00            | 17.98              | 17.42    | 17.80    | 0   | 18.25            |
|             |       | 50               | 0            | 16.98              | 16.77    | 16.64    | 0   | 17.00            | 18.02              | 17.56    | 17.38    | 0   | 18.25            |
| 15 MHz      | QPSK  | 50               | 24           | 16.97              | 16.69    | 16.66    | 0   | 17.00            | 17.81              | 17.45    | 17.39    | 0   | 18.25            |
|             |       | 50               | 50           | 16.99              | 16.60    | 16.73    | 0   | 17.00            | 17.65              | 17.39    | 17.47    | 0   | 18.25            |
|             |       | 100              | 0            | 16.96              | 16.67    | 16.65    | 0   | 17.00            | 17.73              | 17.39    | 17.39    | 0   | 18.25            |
|             | 16QAM | 1                | 0            | 16.64              | 16.16    | 16.26    | 0   | 17.00            | 17.87              | 17.43    | 17.54    | 0   | 18.25            |
|             |       | 1                | 37           | 16.56              | 16.01    | 16.29    | 0   | 17.00            | 17.75              | 17.29    | 17.56    | 0   | 18.25            |
|             |       | 1                | 74           | 16.37              | 16.29    | 16.19    | 0   | 17.00            | 17.56              | 17.32    | 17.46    | 0   | 18.25            |
|             |       | 36               | 0            | 16.73              | 16.08    | 16.31    | 0   | 17.00            | 17.97              | 17.40    | 17.57    | 0   | 18.25            |
|             |       | 36               | 20           | 16.57              | 16.02    | 16.29    | 0   | 17.00            | 17.79              | 17.32    | 17.57    | 0   | 18.25            |
|             |       | 36               | 39           | 16.49              | 16.39    | 16.27    | 0   | 17.00            | 17.73              | 17.25    | 17.54    | 0   | 18.25            |
|             | 64QAM | 75               | 0            | 16.54              | 16.01    | 16.28    | 0   | 17.00            | 17.78              | 17.30    | 17.55    | 0   | 18.25            |
|             |       | 1                | 0            | 16.55              | 16.51    | 16.64    | 0   | 17.00            | 18.11              | 17.80    | 17.91    | 0   | 18.25            |
|             |       | 1                | 37           | 16.43              | 16.37    | 16.72    | 0   | 17.00            | 18.01              | 17.66    | 17.94    | 0   | 18.25            |
|             |       | 1                | 74           | 16.67              | 16.37    | 16.62    | 0   | 17.00            | 17.82              | 17.70    | 17.85    | 0   | 18.25            |
|             |       | 36               | 0            | 16.37              | 16.13    | 16.35    | 0   | 17.00            | 18.01              | 17.45    | 17.62    | 0   | 18.25            |
|             |       | 36               | 20           | 16.61              | 16.08    | 16.34    | 0   | 17.00            | 17.82              | 17.37    | 17.61    | 0   | 18.25            |
| 10 MHz      | QPSK  | 36               | 39           | 16.57              | 16.01    | 16.28    | 0   | 17.00            | 17.77              | 17.33    | 17.55    | 0   | 18.25            |
|             |       | 75               | 0            | 16.60              | 16.06    | 16.33    | 0   | 17.00            | 17.80              | 17.34    | 17.58    | 0   | 18.25            |
|             |       | 1                | 0            | 16.91              | 17.00    | 16.77    | 0   | 17.00            | 18.07              | 17.72    | 17.57    | 0   | 18.25            |
|             |       | 1                | 37           | 16.96              | 16.93    | 16.94    | 0   | 17.00            | 18.16              | 17.63    | 17.67    | 0   | 18.25            |
|             |       | 1                | 74           | 16.99              | 16.84    | 16.87    | 0   | 17.00            | 17.95              | 17.54    | 17.62    | 0   | 18.25            |
|             |       | 36               | 0            | 16.97              | 16.79    | 16.64    | 0   | 17.00            | 17.99              | 17.55    | 17.41    | 0   | 18.25            |
|             | 16QAM | 36               | 20           | 16.94              | 16.77    | 16.80    | 0   | 17.00            | 17.97              | 17.50    | 17.57    | 0   | 18.25            |
|             |       | 36               | 39           | 16.96              | 16.70    | 16.78    | 0   | 17.00            | 17.85              | 17.45    | 17.48    | 0   | 18.25            |
|             |       | 75               | 0            | 16.94              | 16.71    | 16.72    | 0   | 17.00            | 17.95              | 17.47    | 17.49    | 0   | 18.25            |
|             |       | 1                | 0            | 16.69              | 16.10    | 16.35    | 0   | 17.00            | 17.92              | 17.41    | 17.57    | 0   | 18.25            |
|             |       | 1                | 25           | 16.70              | 16.01    | 16.27    | 0   | 17.00            | 17.94              | 17.29    | 17.49    | 0   | 18.25            |
|             |       | 1                | 49           | 16.61              | 16.20    | 16.34    | 0   | 17.00            | 17.81              | 17.26    | 17.53    | 0   | 18.25            |
| 10 MHz      | QPSK  | 25               | 0            | 16.63              | 16.07    | 16.25    | 0   | 17.00            | 17.89              | 17.39    | 17.52    | 0   | 18.25            |
|             |       | 25               | 12           | 16.66              | 16.06    | 16.24    | 0   | 17.00            | 17.89              | 17.29    | 17.51    | 0   | 18.25            |
|             |       | 25               | 25           | 16.54              | 16.02    | 16.26    | 0   | 17.00            | 17.81              | 17.34    | 17.56    | 0   | 18.25            |
|             |       | 50               | 0            | 16.60              | 16.07    | 16.23    | 0   | 17.00            | 17.85              | 17.29    | 17.52    | 0   | 18.25            |
|             | 16QAM | 1                | 0            | 16.55              | 16.50    | 16.63    | 0   | 17.00            | 18.12              | 17.72    | 17.90    | 0   | 18.25            |
|             |       | 1                | 25           | 16.51              | 16.44    | 16.63    | 0   | 17.00            | 18.18              | 17.63    | 17.82    | 0   | 18.25            |
|             |       | 1                | 49           | 16.42              | 16.42    | 16.62    | 0   | 17.00            | 18.08              | 17.61    | 17.95    | 0   | 18.25            |
|             |       | 25               | 0            | 16.70              | 16.19    | 16.32    | 0   | 17.00            | 17.92              | 17.44    | 17.60    | 0   | 18.25            |
|             |       | 25               | 12           | 16.70              | 16.11    | 16.29    | 0   | 17.00            | 17.94              | 17.34    | 17.57    | 0   | 18.25            |
|             |       | 25               | 25           | 16.58              | 16.06    | 16.32    | 0   | 17.00            | 17.82              | 17.30    | 17.62    | 0   | 18.25            |
| 10 MHz      | 64QAM | 50               | 0            | 16.64              | 16.11    | 16.29    | 0   | 17.00            | 17.88              | 17.34    | 17.52    | 0   | 18.25            |
|             |       | 1                | 0            | 16.91              | 16.90    | 16.82    | 0   | 17.00            | 17.90              | 17.78    | 17.59    | 0   | 18.25            |
|             |       | 1                | 25           | 16.91              | 16.91    | 16.83    | 0   | 17.00            | 18.13              | 17.67    | 17.62    | 0   | 18.25            |
|             |       | 1                | 49           | 16.94              | 16.91    | 16.90    | 0   | 17.00            | 18.02              | 17.61    | 17.75    | 0   | 18.25            |
|             |       | 25               | 0            | 16.94              | 16.82    | 16.73    | 0   | 17.00            | 17.91              | 17.60    | 17.50    | 0   | 18.25            |
|             |       | 25               | 12           | 16.99              | 16.75    | 16.68    | 0   | 17.00            | 18.00              | 17.52    | 17.47    | 0   | 18.25            |
|             | 64QAM | 25               | 25           | 16.93              | 16.73    | 16.74    | 0   | 17.00            | 17.98              | 17.47    | 17.52    | 0   | 18.25            |
|             |       | 50               | 0            | 16.91              | 16.75    | 16.71    | 0   | 17.00            | 18.02              | 17.52    | 17.48    | 0   | 18.25            |

**LTE Band 7 Measured Results (ANT4) (continued)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |          |            |     |                  | Power Mode B (dBm) |          |            |     |                  |
|-------------|-------|------------------|--------------|--------------------|----------|------------|-----|------------------|--------------------|----------|------------|-----|------------------|
|             |       |                  |              | 20775              | 21100    | 21425      | MPR | Tune-up<br>Limit | 20775              | 21100    | 21425      | MPR | Tune-up<br>Limit |
|             |       |                  |              | 2502.5 MHz         | 2535 MHz | 2567.5 MHz |     |                  | 2502.5 MHz         | 2535 MHz | 2567.5 MHz |     |                  |
| 5 MHz       | QPSK  | 1                | 0            | 16.58              | 16.15    | 16.30      | 0   | 17.00            | 17.82              | 17.40    | 17.51      | 0   | 18.25            |
|             |       | 1                | 12           | 16.60              | 16.05    | 16.29      | 0   | 17.00            | 17.84              | 17.27    | 17.55      | 0   | 18.25            |
|             |       | 1                | 24           | 16.65              | 16.02    | 16.33      | 0   | 17.00            | 17.92              | 17.43    | 17.53      | 0   | 18.25            |
|             |       | 12               | 0            | 16.52              | 16.20    | 16.23      | 0   | 17.00            | 17.78              | 17.34    | 17.45      | 0   | 18.25            |
|             |       | 12               | 7            | 16.53              | 16.20    | 16.25      | 0   | 17.00            | 17.79              | 17.31    | 17.49      | 0   | 18.25            |
|             |       | 12               | 13           | 16.62              | 16.20    | 16.23      | 0   | 17.00            | 17.88              | 17.30    | 17.47      | 0   | 18.25            |
|             |       | 25               | 0            | 16.51              | 16.20    | 16.24      | 0   | 17.00            | 17.77              | 17.38    | 17.48      | 0   | 18.25            |
|             | 16QAM | 1                | 0            | 16.57              | 16.47    | 16.36      | 0   | 17.00            | 18.18              | 17.68    | 17.92      | 0   | 18.25            |
|             |       | 1                | 12           | 16.51              | 16.30    | 16.72      | 0   | 17.00            | 18.20              | 17.55    | 17.96      | 0   | 18.25            |
|             |       | 1                | 24           | 16.59              | 16.33    | 16.36      | 0   | 17.00            | 18.11              | 17.53    | 17.95      | 0   | 18.25            |
|             |       | 12               | 0            | 16.46              | 16.30    | 16.24      | 0   | 17.00            | 17.75              | 17.32    | 17.47      | 0   | 18.25            |
|             |       | 12               | 7            | 16.50              | 16.20    | 16.26      | 0   | 17.00            | 17.77              | 17.39    | 17.51      | 0   | 18.25            |
|             |       | 12               | 13           | 16.60              | 16.30    | 16.28      | 0   | 17.00            | 17.84              | 17.39    | 17.50      | 0   | 18.25            |
|             |       | 25               | 0            | 16.52              | 16.29    | 16.22      | 0   | 17.00            | 17.79              | 17.36    | 17.46      | 0   | 18.25            |
|             | 64QAM | 1                | 0            | 16.97              | 16.99    | 16.93      | 0   | 17.00            | 17.94              | 17.81    | 17.63      | 0   | 18.25            |
|             |       | 1                | 12           | 16.94              | 16.98    | 16.92      | 0   | 17.00            | 18.03              | 17.74    | 17.62      | 0   | 18.25            |
|             |       | 1                | 24           | 16.99              | 16.95    | 16.93      | 0   | 17.00            | 18.18              | 17.68    | 17.73      | 0   | 18.25            |
|             |       | 12               | 0            | 16.93              | 16.59    | 16.61      | 0   | 17.00            | 17.63              | 17.29    | 17.33      | 0   | 18.25            |
|             |       | 12               | 7            | 16.92              | 16.58    | 16.66      | 0   | 17.00            | 17.71              | 17.26    | 17.37      | 0   | 18.25            |
|             |       | 12               | 13           | 16.91              | 16.58    | 16.69      | 0   | 17.00            | 17.78              | 17.35    | 17.36      | 0   | 18.25            |
|             |       | 25               | 0            | 16.91              | 16.57    | 16.66      | 0   | 17.00            | 17.74              | 17.34    | 17.35      | 0   | 18.25            |

**LTE Band 12 Measured Results (ANT1)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |           |           |       |                  | Power Mode B (dBm) |           |           |       |                  |   |       |
|-------------|-------|------------------|--------------|--------------------|-----------|-----------|-------|------------------|--------------------|-----------|-----------|-------|------------------|---|-------|
|             |       |                  |              |                    | 23095     |           | MPR   | Tune-up<br>Limit |                    | 23095     |           | MPR   | Tune-up<br>Limit |   |       |
|             |       |                  |              |                    | 707.5 MHz |           |       |                  |                    | 707.5 MHz |           |       |                  |   |       |
| 10 MHz      | QPSK  | 1                | 0            |                    | 25.06     |           | 0     | 25.70            |                    | 25.06     |           | 0     | 25.70            |   |       |
|             |       | 1                | 25           |                    | 25.30     |           | 0     | 25.70            |                    | 25.30     |           | 0     | 25.70            |   |       |
|             |       | 1                | 49           |                    | 25.22     |           | 0     | 25.70            |                    | 25.22     |           | 0     | 25.70            |   |       |
|             |       | 25               | 0            |                    | 24.12     |           | 1     | 24.70            |                    | 24.12     |           | 1     | 24.70            |   |       |
|             |       | 25               | 12           |                    | 24.20     |           | 1     | 24.70            |                    | 24.20     |           | 1     | 24.70            |   |       |
|             |       | 25               | 25           |                    | 24.09     |           | 1     | 24.70            |                    | 24.09     |           | 1     | 24.70            |   |       |
|             |       | 50               | 0            |                    | 24.20     |           | 1     | 24.70            |                    | 24.20     |           | 1     | 24.70            |   |       |
|             | 16QAM | 1                | 0            |                    | 24.28     |           | 1     | 24.70            |                    | 24.28     |           | 1     | 24.70            |   |       |
|             |       | 1                | 25           |                    | 24.48     |           | 1     | 24.70            |                    | 24.48     |           | 1     | 24.70            |   |       |
|             |       | 1                | 49           |                    | 24.55     |           | 1     | 24.70            |                    | 24.55     |           | 1     | 24.70            |   |       |
|             |       | 25               | 0            |                    | 23.16     |           | 2     | 23.70            |                    | 23.16     |           | 2     | 23.70            |   |       |
|             |       | 25               | 12           |                    | 23.16     |           | 2     | 23.70            |                    | 23.16     |           | 2     | 23.70            |   |       |
|             |       | 25               | 25           |                    | 23.14     |           | 2     | 23.70            |                    | 23.14     |           | 2     | 23.70            |   |       |
|             |       | 50               | 0            |                    | 23.16     |           | 2     | 23.70            |                    | 23.16     |           | 2     | 23.70            |   |       |
|             | 64QAM | 1                | 0            |                    | 23.42     |           | 2     | 23.70            |                    | 23.42     |           | 2     | 23.70            |   |       |
|             |       | 1                | 25           |                    | 23.55     |           | 2     | 23.70            |                    | 23.55     |           | 2     | 23.70            |   |       |
|             |       | 1                | 49           |                    | 23.56     |           | 2     | 23.70            |                    | 23.56     |           | 2     | 23.70            |   |       |
|             |       | 25               | 0            |                    | 22.38     |           | 3     | 22.70            |                    | 22.38     |           | 3     | 22.70            |   |       |
|             |       | 25               | 12           |                    | 22.38     |           | 3     | 22.70            |                    | 22.38     |           | 3     | 22.70            |   |       |
|             |       | 25               | 25           |                    | 22.34     |           | 3     | 22.70            |                    | 22.34     |           | 3     | 22.70            |   |       |
|             |       | 50               | 0            |                    | 22.40     |           | 3     | 22.70            |                    | 22.40     |           | 3     | 22.70            |   |       |
| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |           |           |       |                  | Power Mode B (dBm) |           |           |       |                  |   |       |
|             |       |                  |              | 23035              | 23095     | 23155     | MPR   | Tune-up<br>Limit | 23035              | 23095     | 23155     | MPR   | Tune-up<br>Limit |   |       |
|             |       |                  |              | 701.5 MHz          | 707.5 MHz | 713.5 MHz |       |                  | 701.5 MHz          | 707.5 MHz | 713.5 MHz |       |                  |   |       |
| 5 MHz       | QPSK  | 1                | 0            |                    | 25.09     | 25.14     | 25.06 | 0                | 25.70              |           | 25.09     | 25.14 | 25.06            | 0 | 25.70 |
|             |       | 1                | 12           |                    | 24.97     | 25.12     | 25.15 | 0                | 25.70              |           | 24.97     | 25.12 | 25.15            | 0 | 25.70 |
|             |       | 1                | 24           |                    | 25.06     | 25.09     | 25.18 | 0                | 25.70              |           | 25.06     | 25.09 | 25.18            | 0 | 25.70 |
|             |       | 12               | 0            |                    | 23.93     | 24.00     | 24.06 | 1                | 24.70              |           | 23.93     | 24.00 | 24.06            | 1 | 24.70 |
|             |       | 12               | 7            |                    | 23.89     | 24.01     | 24.04 | 1                | 24.70              |           | 23.89     | 24.01 | 24.04            | 1 | 24.70 |
|             |       | 12               | 13           |                    | 23.90     | 24.11     | 24.06 | 1                | 24.70              |           | 23.90     | 24.11 | 24.06            | 1 | 24.70 |
|             |       | 25               | 0            |                    | 23.91     | 24.01     | 24.10 | 1                | 24.70              |           | 23.91     | 24.01 | 24.10            | 1 | 24.70 |
|             | 16QAM | 1                | 0            |                    | 24.38     | 24.42     | 24.49 | 1                | 24.70              |           | 24.38     | 24.42 | 24.49            | 1 | 24.70 |
|             |       | 1                | 12           |                    | 24.34     | 24.38     | 24.55 | 1                | 24.70              |           | 24.34     | 24.38 | 24.55            | 1 | 24.70 |
|             |       | 1                | 24           |                    | 24.47     | 24.35     | 24.59 | 1                | 24.70              |           | 24.47     | 24.35 | 24.59            | 1 | 24.70 |
|             |       | 12               | 0            |                    | 22.93     | 22.98     | 23.05 | 2                | 23.70              |           | 22.93     | 22.98 | 23.05            | 2 | 23.70 |
|             |       | 12               | 7            |                    | 22.89     | 23.01     | 23.01 | 2                | 23.70              |           | 22.89     | 23.01 | 23.01            | 2 | 23.70 |
|             |       | 12               | 13           |                    | 22.89     | 23.13     | 23.01 | 2                | 23.70              |           | 22.89     | 23.13 | 23.01            | 2 | 23.70 |
|             |       | 25               | 0            |                    | 22.89     | 23.02     | 23.01 | 2                | 23.70              |           | 22.89     | 23.02 | 23.01            | 2 | 23.70 |
|             | 64QAM | 1                | 0            |                    | 23.64     | 23.61     | 23.56 | 2                | 23.70              |           | 23.64     | 23.61 | 23.56            | 2 | 23.70 |
|             |       | 1                | 12           |                    | 23.50     | 23.57     | 23.62 | 2                | 23.70              |           | 23.50     | 23.57 | 23.62            | 2 | 23.70 |
|             |       | 1                | 24           |                    | 23.66     | 23.50     | 23.66 | 2                | 23.70              |           | 23.66     | 23.50 | 23.66            | 2 | 23.70 |
|             |       | 12               | 0            |                    | 22.15     | 22.24     | 22.13 | 3                | 22.70              |           | 22.15     | 22.24 | 22.13            | 3 | 22.70 |
|             |       | 12               | 7            |                    | 22.08     | 22.25     | 22.17 | 3                | 22.70              |           | 22.08     | 22.25 | 22.17            | 3 | 22.70 |
|             |       | 12               | 13           |                    | 22.09     | 22.32     | 22.15 | 3                | 22.70              |           | 22.09     | 22.32 | 22.15            | 3 | 22.70 |
|             |       | 25               | 0            |                    | 22.06     | 22.22     | 22.20 | 3                | 22.70              |           | 22.06     | 22.22 | 22.20            | 3 | 22.70 |
| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |           |           |       |                  | Power Mode B (dBm) |           |           |       |                  |   |       |
|             |       |                  |              | 23025              | 23095     | 23165     | MPR   | Tune-up<br>Limit | 23025              | 23095     | 23165     | MPR   | Tune-up<br>Limit |   |       |
|             |       |                  |              | 700.5 MHz          | 707.5 MHz | 714.5 MHz |       |                  | 700.5 MHz          | 707.5 MHz | 714.5 MHz |       |                  |   |       |
| 3 MHz       | QPSK  | 1                | 0            |                    | 25.06     | 25.10     | 25.18 | 0                | 25.70              |           | 25.06     | 25.10 | 25.18            | 0 | 25.70 |
|             |       | 1                | 8            |                    | 25.12     | 25.19     | 25.21 | 0                | 25.70              |           | 25.12     | 25.19 | 25.21            | 0 | 25.70 |
|             |       | 1                | 14           |                    | 24.99     | 25.17     | 25.16 | 0                | 25.70              |           | 24.99     | 25.17 | 25.16            | 0 | 25.70 |
|             |       | 8                | 0            |                    | 23.88     | 23.97     | 24.05 | 1                | 24.70              |           | 23.88     | 23.97 | 24.05            | 1 | 24.70 |
|             |       | 8                | 4            |                    | 23.87     | 23.99     | 24.02 | 1                | 24.70              |           | 23.87     | 23.99 | 24.02            | 1 | 24.70 |
|             |       | 8                | 7            |                    | 23.88     | 24.04     | 24.02 | 1                | 24.70              |           | 23.88     | 24.04 | 24.02            | 1 | 24.70 |
|             |       | 15               | 0            |                    | 23.89     | 24.04     | 24.06 | 1                | 24.70              |           | 23.89     | 24.04 | 24.06            | 1 | 24.70 |
|             | 16QAM | 1                | 0            |                    | 24.27     | 24.36     | 24.53 | 1                | 24.70              |           | 24.27     | 24.36 | 24.53            | 1 | 24.70 |
|             |       | 1                | 8            |                    | 24.36     | 24.47     | 24.56 | 1                | 24.70              |           | 24.36     | 24.47 | 24.56            | 1 | 24.70 |
|             |       | 1                | 14           |                    | 24.26     | 24.41     | 24.49 | 1                | 24.70              |           | 24.26     | 24.41 | 24.49            | 1 | 24.70 |
|             |       | 8                | 0            |                    | 22.91     | 22.91     | 22.97 | 2                | 23.70              |           | 22.91     | 22.91 | 22.97            | 2 | 23.70 |
|             |       | 8                | 4            |                    | 22.88     | 22.96     | 22.95 | 2                | 23.70              |           | 22.88     | 22.96 | 22.95            | 2 | 23.70 |
|             |       | 8                | 7            |                    | 22.89     | 23.01     | 22.95 | 2                | 23.70              |           | 22.89     | 23.01 | 22.95            | 2 | 23.70 |
|             |       | 15               | 0            |                    | 22.86     | 22.95     | 23.00 | 2                | 23.70              |           | 22.86     | 22.95 | 23.00            | 2 | 23.70 |
|             | 64QAM | 1                | 0            |                    | 23.39     | 23.44     | 23.52 | 2                | 23.70              |           | 23.39     | 23.44 | 23.52            | 2 | 23.70 |
|             |       | 1                | 8            |                    | 23.35     | 23.49     | 23.59 | 2                | 23.70              |           | 23.35     | 23.49 | 23.59            | 2 | 23.70 |
|             |       | 1                | 14           |                    | 23.28     | 23.50     | 23.47 | 2                | 23.70              |           | 23.28     | 23.50 | 23.47            | 2 | 23.70 |
|             |       | 8                | 0            |                    | 22.01     | 22.06     | 22.17 | 3                | 22.70              |           | 22.01     | 22.06 | 22.17            | 3 | 22.70 |
|             |       | 8                | 4            |                    | 22.01     | 22.15     | 22.15 | 3                | 22.70              |           | 22.01     | 22.15 | 22.15            | 3 | 22.70 |
|             |       | 8                | 7            |                    | 22.02     | 22.18     | 22.14 | 3                | 22.70              |           | 22.02     | 22.18 | 22.14            | 3 | 22.70 |
|             |       | 15               | 0            |                    | 21.97     | 22.16     | 22.15 | 3                | 22.70              |           | 21.97     | 22.16 | 22.15            | 3 | 22.70 |

**LTE Band 12 Measured Results (ANT1) (continued)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |           |           |     |                  | Power Mode B (dBm) |           |           |     |                  |
|-------------|-------|------------------|--------------|--------------------|-----------|-----------|-----|------------------|--------------------|-----------|-----------|-----|------------------|
|             |       |                  |              | 23017              | 23095     | 23173     | MPR | Tune-up<br>Limit | 23017              | 23095     | 23173     | MPR | Tune-up<br>Limit |
|             |       |                  |              | 699.7 MHz          | 707.5 MHz | 715.3 MHz |     |                  | 699.7 MHz          | 707.5 MHz | 715.3 MHz |     |                  |
| 1.4 MHz     | QPSK  | 1                | 0            | 25.12              | 25.13     | 25.23     | 0   | 25.70            | 25.12              | 25.13     | 25.23     | 0   | 25.70            |
|             |       | 1                | 3            | 25.08              | 25.14     | 25.13     | 0   | 25.70            | 25.08              | 25.14     | 25.13     | 0   | 25.70            |
|             |       | 1                | 5            | 25.11              | 25.22     | 25.15     | 0   | 25.70            | 25.11              | 25.22     | 25.15     | 0   | 25.70            |
|             |       | 3                | 0            | 24.93              | 25.00     | 24.96     | 0   | 25.70            | 24.93              | 25.00     | 24.96     | 0   | 25.70            |
|             |       | 3                | 1            | 24.91              | 25.05     | 24.98     | 0   | 25.70            | 24.91              | 25.05     | 24.98     | 0   | 25.70            |
|             |       | 3                | 3            | 24.91              | 25.07     | 24.98     | 0   | 25.70            | 24.91              | 25.07     | 24.98     | 0   | 25.70            |
|             | 16QAM | 6                | 0            | 24.12              | 24.27     | 24.26     | 1   | 24.70            | 24.12              | 24.27     | 24.26     | 1   | 24.70            |
|             |       | 1                | 0            | 24.37              | 24.32     | 24.51     | 1   | 24.70            | 24.37              | 24.32     | 24.51     | 1   | 24.70            |
|             |       | 1                | 3            | 24.35              | 24.32     | 24.41     | 1   | 24.70            | 24.35              | 24.32     | 24.41     | 1   | 24.70            |
|             |       | 1                | 5            | 24.35              | 24.42     | 24.44     | 1   | 24.70            | 24.35              | 24.42     | 24.44     | 1   | 24.70            |
|             |       | 3                | 0            | 24.02              | 24.08     | 24.11     | 1   | 24.70            | 24.02              | 24.08     | 24.11     | 1   | 24.70            |
|             |       | 3                | 1            | 24.02              | 24.06     | 24.09     | 1   | 24.70            | 24.02              | 24.06     | 24.09     | 1   | 24.70            |
|             | 64QAM | 3                | 3            | 24.01              | 24.06     | 24.10     | 1   | 24.70            | 24.01              | 24.06     | 24.10     | 1   | 24.70            |
|             |       | 6                | 0            | 23.24              | 23.27     | 23.19     | 2   | 23.70            | 23.24              | 23.27     | 23.19     | 2   | 23.70            |
|             |       | 1                | 0            | 23.62              | 23.48     | 23.54     | 2   | 23.70            | 23.62              | 23.48     | 23.54     | 2   | 23.70            |
|             |       | 1                | 3            | 23.62              | 23.51     | 23.49     | 2   | 23.70            | 23.62              | 23.51     | 23.49     | 2   | 23.70            |
|             |       | 1                | 5            | 23.65              | 23.63     | 23.56     | 2   | 23.70            | 23.65              | 23.63     | 23.56     | 2   | 23.70            |
|             |       | 3                | 0            | 23.32              | 23.15     | 23.32     | 2   | 23.70            | 23.32              | 23.15     | 23.32     | 2   | 23.70            |
|             | 64QAM | 3                | 1            | 23.34              | 23.21     | 23.28     | 2   | 23.70            | 23.34              | 23.21     | 23.28     | 2   | 23.70            |
|             |       | 3                | 3            | 23.32              | 23.15     | 23.31     | 2   | 23.70            | 23.32              | 23.15     | 23.31     | 2   | 23.70            |
|             |       | 6                | 0            | 22.12              | 22.23     | 22.19     | 3   | 22.70            | 22.12              | 22.23     | 22.19     | 3   | 22.70            |
|             |       |                  |              |                    |           |           |     |                  |                    |           |           |     |                  |

**LTE Band 12 Measured Results (ANT2)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |           |           |     |                  | Power Mode B (dBm) |           |           |     |                  |
|-------------|-------|------------------|--------------|--------------------|-----------|-----------|-----|------------------|--------------------|-----------|-----------|-----|------------------|
|             |       |                  |              |                    | 23095     |           | MPR | Tune-up<br>Limit |                    | 23095     |           | MPR | Tune-up<br>Limit |
|             |       |                  |              |                    | 707.5 MHz |           |     |                  |                    | 707.5 MHz |           |     |                  |
| 10 MHz      | QPSK  | 1                | 0            |                    | 23.74     |           | 0   | 24.50            |                    | 23.74     |           | 0   | 24.50            |
|             |       | 1                | 25           |                    | 24.00     |           | 0   | 24.50            |                    | 24.00     |           | 0   | 24.50            |
|             |       | 1                | 49           |                    | 23.80     |           | 0   | 24.50            |                    | 23.80     |           | 0   | 24.50            |
|             |       | 25               | 0            |                    | 22.67     |           | 1   | 23.50            |                    | 22.67     |           | 1   | 23.50            |
|             |       | 25               | 12           |                    | 23.00     |           | 1   | 23.50            |                    | 23.00     |           | 1   | 23.50            |
|             |       | 25               | 25           |                    | 22.71     |           | 1   | 23.50            |                    | 22.71     |           | 1   | 23.50            |
|             |       | 50               | 0            |                    | 23.00     |           | 1   | 23.50            |                    | 23.00     |           | 1   | 23.50            |
|             | 16QAM | 1                | 0            |                    | 23.05     |           | 1   | 23.50            |                    | 23.05     |           | 1   | 23.50            |
|             |       | 1                | 25           |                    | 23.04     |           | 1   | 23.50            |                    | 23.04     |           | 1   | 23.50            |
|             |       | 1                | 49           |                    | 23.15     |           | 1   | 23.50            |                    | 23.15     |           | 1   | 23.50            |
|             |       | 25               | 0            |                    | 21.66     |           | 2   | 22.50            |                    | 21.66     |           | 2   | 22.50            |
|             |       | 25               | 12           |                    | 21.71     |           | 2   | 22.50            |                    | 21.71     |           | 2   | 22.50            |
|             |       | 25               | 25           |                    | 21.75     |           | 2   | 22.50            |                    | 21.75     |           | 2   | 22.50            |
|             |       | 50               | 0            |                    | 21.71     |           | 2   | 22.50            |                    | 21.71     |           | 2   | 22.50            |
|             | 64QAM | 1                | 0            |                    | 21.91     |           | 2   | 22.50            |                    | 21.91     |           | 2   | 22.50            |
|             |       | 1                | 25           |                    | 21.99     |           | 2   | 22.50            |                    | 21.99     |           | 2   | 22.50            |
|             |       | 1                | 49           |                    | 21.93     |           | 2   | 22.50            |                    | 21.93     |           | 2   | 22.50            |
|             |       | 25               | 0            |                    | 20.71     |           | 3   | 21.50            |                    | 20.71     |           | 3   | 21.50            |
|             |       | 25               | 12           |                    | 20.72     |           | 3   | 21.50            |                    | 20.72     |           | 3   | 21.50            |
|             |       | 25               | 25           |                    | 20.76     |           | 3   | 21.50            |                    | 20.76     |           | 3   | 21.50            |
|             |       | 50               | 0            |                    | 20.75     |           | 3   | 21.50            |                    | 20.75     |           | 3   | 21.50            |
| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |           |           |     |                  | Power Mode B (dBm) |           |           |     |                  |
|             |       |                  |              | 23035              | 23095     | 23155     | MPR | Tune-up<br>Limit | 23035              | 23095     | 23155     | MPR | Tune-up<br>Limit |
|             |       |                  |              | 701.5 MHz          | 707.5 MHz | 713.5 MHz |     |                  | 701.5 MHz          | 707.5 MHz | 713.5 MHz |     |                  |
| 5 MHz       | QPSK  | 1                | 0            | 23.68              | 23.69     | 23.65     | 0   | 24.50            | 23.68              | 23.69     | 23.65     | 0   | 24.50            |
|             |       | 1                | 12           | 23.61              | 23.73     | 23.65     | 0   | 24.50            | 23.61              | 23.73     | 23.65     | 0   | 24.50            |
|             |       | 1                | 24           | 23.66              | 23.73     | 23.82     | 0   | 24.50            | 23.66              | 23.73     | 23.82     | 0   | 24.50            |
|             |       | 12               | 0            | 22.59              | 22.60     | 22.59     | 1   | 23.50            | 22.59              | 22.60     | 22.59     | 1   | 23.50            |
|             |       | 12               | 7            | 22.56              | 22.65     | 22.59     | 1   | 23.50            | 22.56              | 22.65     | 22.59     | 1   | 23.50            |
|             |       | 12               | 13           | 22.54              | 22.68     | 22.63     | 1   | 23.50            | 22.54              | 22.68     | 22.63     | 1   | 23.50            |
|             |       | 25               | 0            | 22.57              | 22.65     | 22.61     | 1   | 23.50            | 22.57              | 22.65     | 22.61     | 1   | 23.50            |
|             | 16QAM | 1                | 0            | 23.06              | 22.97     | 23.05     | 1   | 23.50            | 23.06              | 22.97     | 23.05     | 1   | 23.50            |
|             |       | 1                | 12           | 22.97              | 23.03     | 23.05     | 1   | 23.50            | 22.97              | 23.03     | 23.05     | 1   | 23.50            |
|             |       | 1                | 24           | 23.00              | 23.07     | 23.24     | 1   | 23.50            | 23.00              | 23.07     | 23.24     | 1   | 23.50            |
|             |       | 12               | 0            | 21.55              | 21.63     | 21.59     | 2   | 22.50            | 21.55              | 21.63     | 21.59     | 2   | 22.50            |
|             |       | 12               | 7            | 21.60              | 21.64     | 21.57     | 2   | 22.50            | 21.60              | 21.64     | 21.57     | 2   | 22.50            |
|             |       | 12               | 13           | 21.59              | 21.68     | 21.63     | 2   | 22.50            | 21.59              | 21.68     | 21.63     | 2   | 22.50            |
|             |       | 25               | 0            | 21.60              | 21.61     | 21.57     | 2   | 22.50            | 21.60              | 21.61     | 21.57     | 2   | 22.50            |
|             | 64QAM | 1                | 0            | 21.93              | 21.93     | 22.02     | 2   | 22.50            | 21.93              | 21.93     | 22.02     | 2   | 22.50            |
|             |       | 1                | 12           | 21.96              | 21.91     | 22.04     | 2   | 22.50            | 21.96              | 21.91     | 22.04     | 2   | 22.50            |
|             |       | 1                | 24           | 21.96              | 21.96     | 22.09     | 2   | 22.50            | 21.96              | 21.96     | 22.09     | 2   | 22.50            |
|             |       | 12               | 0            | 20.76              | 20.57     | 20.55     | 3   | 21.50            | 20.76              | 20.57     | 20.55     | 3   | 21.50            |
|             |       | 12               | 7            | 20.65              | 20.56     | 20.55     | 3   | 21.50            | 20.65              | 20.56     | 20.55     | 3   | 21.50            |
|             |       | 12               | 13           | 20.67              | 20.52     | 20.62     | 3   | 21.50            | 20.67              | 20.52     | 20.62     | 3   | 21.50            |
|             |       | 25               | 0            | 20.64              | 20.51     | 20.56     | 3   | 21.50            | 20.64              | 20.51     | 20.56     | 3   | 21.50            |
| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |           |           |     |                  | Power Mode B (dBm) |           |           |     |                  |
|             |       |                  |              | 23025              | 23095     | 23165     | MPR | Tune-up<br>Limit | 23025              | 23095     | 23165     | MPR | Tune-up<br>Limit |
|             |       |                  |              | 700.5 MHz          | 707.5 MHz | 714.5 MHz |     |                  | 700.5 MHz          | 707.5 MHz | 714.5 MHz |     |                  |
| 3 MHz       | QPSK  | 1                | 0            | 23.70              | 23.67     | 23.66     | 0   | 24.50            | 23.70              | 23.67     | 23.66     | 0   | 24.50            |
|             |       | 1                | 8            | 23.74              | 23.75     | 23.80     | 0   | 24.50            | 23.74              | 23.75     | 23.80     | 0   | 24.50            |
|             |       | 1                | 14           | 23.66              | 23.75     | 23.78     | 0   | 24.50            | 23.66              | 23.75     | 23.78     | 0   | 24.50            |
|             |       | 8                | 0            | 22.57              | 22.51     | 22.57     | 1   | 23.50            | 22.57              | 22.51     | 22.57     | 1   | 23.50            |
|             |       | 8                | 4            | 22.55              | 22.56     | 22.61     | 1   | 23.50            | 22.55              | 22.56     | 22.61     | 1   | 23.50            |
|             |       | 8                | 7            | 22.54              | 22.56     | 22.59     | 1   | 23.50            | 22.54              | 22.56     | 22.59     | 1   | 23.50            |
|             |       | 15               | 0            | 22.58              | 22.61     | 22.61     | 1   | 23.50            | 22.58              | 22.61     | 22.61     | 1   | 23.50            |
|             | 16QAM | 1                | 0            | 22.92              | 22.88     | 23.01     | 1   | 23.50            | 22.92              | 22.88     | 23.01     | 1   | 23.50            |
|             |       | 1                | 8            | 22.94              | 23.07     | 23.05     | 1   | 23.50            | 22.94              | 23.07     | 23.05     | 1   | 23.50            |
|             |       | 1                | 14           | 22.88              | 23.03     | 23.11     | 1   | 23.50            | 22.88              | 23.03     | 23.11     | 1   | 23.50            |
|             |       | 8                | 0            | 21.56              | 21.51     | 21.59     | 2   | 22.50            | 21.56              | 21.51     | 21.59     | 2   | 22.50            |
|             |       | 8                | 4            | 21.53              | 21.58     | 21.54     | 2   | 22.50            | 21.53              | 21.58     | 21.54     | 2   | 22.50            |
|             |       | 8                | 7            | 21.52              | 21.57     | 21.54     | 2   | 22.50            | 21.52              | 21.57     | 21.54     | 2   | 22.50            |
|             |       | 15               | 0            | 21.59              | 21.55     | 21.58     | 2   | 22.50            | 21.59              | 21.55     | 21.58     | 2   | 22.50            |
|             | 64QAM | 1                | 0            | 21.84              | 21.86     | 21.89     | 2   | 22.50            | 21.84              | 21.86     | 21.89     | 2   | 22.50            |
|             |       | 1                | 8            | 21.97              | 21.83     | 22.11     | 2   | 22.50            | 21.97              | 21.83     | 22.11     | 2   | 22.50            |
|             |       | 1                | 14           | 21.85              | 21.84     | 21.90     | 2   | 22.50            | 21.85              | 21.84     | 21.90     | 2   | 22.50            |
|             |       | 8                | 0            | 20.51              | 20.60     | 20.65     | 3   | 21.50            | 20.51              | 20.60     | 20.65     | 3   | 21.50            |
|             |       | 8                | 4            | 20.61              | 20.52     | 20.69     | 3   | 21.50            | 20.61              | 20.52     | 20.69     | 3   | 21.50            |
|             |       | 8                | 7            | 20.62              | 20.51     | 20.68     | 3   | 21.50            | 20.62              | 20.51     | 20.68     | 3   | 21.50            |
|             |       | 15               | 0            | 20.66              | 20.52     | 20.67     | 3   | 21.50            | 20.66              | 20.52     | 20.67     | 3   | 21.50            |

**LTE Band 12 Measured Results (ANT2) (continued)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |           |           |     |                  | Power Mode B (dBm) |           |           |     |                  |
|-------------|-------|------------------|--------------|--------------------|-----------|-----------|-----|------------------|--------------------|-----------|-----------|-----|------------------|
|             |       |                  |              | 23017              | 23095     | 23173     | MPR | Tune-up<br>Limit | 23017              | 23095     | 23173     | MPR | Tune-up<br>Limit |
|             |       |                  |              | 699.7 MHz          | 707.5 MHz | 715.3 MHz |     |                  | 699.7 MHz          | 707.5 MHz | 715.3 MHz |     |                  |
| 1.4 MHz     | QPSK  | 1                | 0            | 23.71              | 23.74     | 23.75     | 0   | 24.50            | 23.71              | 23.74     | 23.75     | 0   | 24.50            |
|             |       | 1                | 3            | 23.67              | 23.71     | 23.78     | 0   | 24.50            | 23.67              | 23.71     | 23.78     | 0   | 24.50            |
|             |       | 1                | 5            | 23.69              | 23.75     | 23.82     | 0   | 24.50            | 23.69              | 23.75     | 23.82     | 0   | 24.50            |
|             |       | 3                | 0            | 23.53              | 23.63     | 23.67     | 0   | 24.50            | 23.53              | 23.63     | 23.67     | 0   | 24.50            |
|             |       | 3                | 1            | 23.52              | 23.63     | 23.65     | 0   | 24.50            | 23.52              | 23.63     | 23.65     | 0   | 24.50            |
|             |       | 3                | 3            | 23.54              | 23.62     | 23.67     | 0   | 24.50            | 23.54              | 23.62     | 23.67     | 0   | 24.50            |
|             | 16QAM | 6                | 0            | 22.54              | 22.55     | 22.64     | 1   | 23.50            | 22.54              | 22.55     | 22.64     | 1   | 23.50            |
|             |       | 1                | 0            | 22.99              | 22.95     | 23.03     | 1   | 23.50            | 22.99              | 22.95     | 23.03     | 1   | 23.50            |
|             |       | 1                | 3            | 22.92              | 22.91     | 23.11     | 1   | 23.50            | 22.92              | 22.91     | 23.11     | 1   | 23.50            |
|             |       | 1                | 5            | 22.94              | 22.95     | 23.16     | 1   | 23.50            | 22.94              | 22.95     | 23.16     | 1   | 23.50            |
|             |       | 3                | 0            | 22.67              | 22.65     | 22.78     | 1   | 23.50            | 22.67              | 22.65     | 22.78     | 1   | 23.50            |
|             |       | 3                | 1            | 22.63              | 22.70     | 22.76     | 1   | 23.50            | 22.63              | 22.70     | 22.76     | 1   | 23.50            |
|             | 64QAM | 3                | 3            | 22.66              | 22.69     | 22.78     | 1   | 23.50            | 22.66              | 22.69     | 22.78     | 1   | 23.50            |
|             |       | 6                | 0            | 21.60              | 21.56     | 21.54     | 2   | 22.50            | 21.60              | 21.56     | 21.54     | 2   | 22.50            |
|             |       | 1                | 0            | 22.31              | 21.92     | 21.90     | 2   | 22.50            | 22.31              | 21.92     | 21.90     | 2   | 22.50            |
|             |       | 1                | 3            | 21.86              | 21.92     | 21.86     | 2   | 22.50            | 21.86              | 21.92     | 21.86     | 2   | 22.50            |
|             |       | 1                | 5            | 21.83              | 21.89     | 21.82     | 2   | 22.50            | 21.83              | 21.89     | 21.82     | 2   | 22.50            |
|             |       | 3                | 0            | 21.81              | 21.84     | 21.79     | 2   | 22.50            | 21.81              | 21.84     | 21.79     | 2   | 22.50            |
|             |       | 3                | 1            | 21.80              | 21.84     | 21.79     | 2   | 22.50            | 21.80              | 21.84     | 21.79     | 2   | 22.50            |
|             |       | 3                | 3            | 21.81              | 21.83     | 21.79     | 2   | 22.50            | 21.81              | 21.83     | 21.79     | 2   | 22.50            |
|             |       | 6                | 0            | 21.32              | 21.37     | 21.40     | 3   | 21.50            | 21.32              | 21.37     | 21.40     | 3   | 21.50            |

**LTE Band 13 Measured Results (ANT1)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |  |     |                  | Power Mode B (dBm) |  |     |                  |
|-------------|-------|------------------|--------------|--------------------|--|-----|------------------|--------------------|--|-----|------------------|
|             |       |                  |              | 23230<br>782 MHz   |  | MPR | Tune-up<br>Limit | 23230<br>782 MHz   |  | MPR | Tune-up<br>Limit |
| 10 MHz      | QPSK  | 1                | 0            | 25.10              |  | 0   | 25.70            | 25.10              |  | 0   | 25.70            |
|             |       | 1                | 25           | 25.20              |  | 0   | 25.70            | 25.20              |  | 0   | 25.70            |
|             |       | 1                | 49           | 25.20              |  | 0   | 25.70            | 25.20              |  | 0   | 25.70            |
|             |       | 25               | 0            | 24.19              |  | 1   | 24.70            | 24.19              |  | 1   | 24.70            |
|             |       | 25               | 12           | 24.20              |  | 1   | 24.70            | 24.20              |  | 1   | 24.70            |
|             |       | 25               | 25           | 24.20              |  | 1   | 24.70            | 24.20              |  | 1   | 24.70            |
|             | 16QAM | 50               | 0            | 24.20              |  | 1   | 24.70            | 24.20              |  | 1   | 24.70            |
|             |       | 1                | 0            | 24.69              |  | 1   | 24.70            | 24.69              |  | 1   | 24.70            |
|             |       | 1                | 25           | 24.50              |  | 1   | 24.70            | 24.50              |  | 1   | 24.70            |
|             |       | 1                | 49           | 24.56              |  | 1   | 24.70            | 24.56              |  | 1   | 24.70            |
|             |       | 25               | 0            | 23.16              |  | 2   | 23.70            | 23.16              |  | 2   | 23.70            |
|             |       | 25               | 12           | 23.18              |  | 2   | 23.70            | 23.18              |  | 2   | 23.70            |
|             | 64QAM | 25               | 25           | 23.24              |  | 2   | 23.70            | 23.24              |  | 2   | 23.70            |
|             |       | 50               | 0            | 23.09              |  | 2   | 23.70            | 23.09              |  | 2   | 23.70            |
|             |       | 1                | 0            | 23.66              |  | 2   | 23.70            | 23.66              |  | 2   | 23.70            |
|             |       | 1                | 25           | 23.66              |  | 2   | 23.70            | 23.66              |  | 2   | 23.70            |
|             |       | 1                | 49           | 23.62              |  | 2   | 23.70            | 23.62              |  | 2   | 23.70            |
|             |       | 25               | 0            | 22.46              |  | 3   | 22.70            | 22.46              |  | 3   | 22.70            |
| 5 MHz       | QPSK  | 25               | 12           | 22.51              |  | 3   | 22.70            | 22.51              |  | 3   | 22.70            |
|             |       | 25               | 25           | 22.55              |  | 3   | 22.70            | 22.55              |  | 3   | 22.70            |
|             |       | 50               | 0            | 22.45              |  | 3   | 22.70            | 22.45              |  | 3   | 22.70            |
|             | 16QAM | 1                | 0            | 25.14              |  | 0   | 25.70            | 25.14              |  | 0   | 25.70            |
|             |       | 1                | 12           | 25.12              |  | 0   | 25.70            | 25.12              |  | 0   | 25.70            |
|             |       | 1                | 24           | 25.25              |  | 0   | 25.70            | 25.25              |  | 0   | 25.70            |
|             |       | 12               | 0            | 24.00              |  | 1   | 24.70            | 24.00              |  | 1   | 24.70            |
|             |       | 12               | 7            | 24.07              |  | 1   | 24.70            | 24.07              |  | 1   | 24.70            |
|             |       | 12               | 13           | 24.08              |  | 1   | 24.70            | 24.08              |  | 1   | 24.70            |
|             | 64QAM | 25               | 0            | 24.01              |  | 1   | 24.70            | 24.01              |  | 1   | 24.70            |
|             |       | 1                | 0            | 24.44              |  | 1   | 24.70            | 24.44              |  | 1   | 24.70            |
|             |       | 1                | 12           | 24.43              |  | 1   | 24.70            | 24.43              |  | 1   | 24.70            |
|             |       | 1                | 24           | 24.59              |  | 1   | 24.70            | 24.59              |  | 1   | 24.70            |
|             |       | 12               | 0            | 23.29              |  | 2   | 23.70            | 23.29              |  | 2   | 23.70            |
|             |       | 12               | 7            | 23.35              |  | 2   | 23.70            | 23.35              |  | 2   | 23.70            |
|             | 16QAM | 12               | 13           | 23.36              |  | 2   | 23.70            | 23.36              |  | 2   | 23.70            |
|             |       | 25               | 0            | 23.27              |  | 2   | 23.70            | 23.27              |  | 2   | 23.70            |
|             | 64QAM | 1                | 0            | 23.69              |  | 2   | 23.70            | 23.69              |  | 2   | 23.70            |
|             |       | 1                | 12           | 23.63              |  | 2   | 23.70            | 23.63              |  | 2   | 23.70            |
|             |       | 1                | 24           | 23.66              |  | 2   | 23.70            | 23.66              |  | 2   | 23.70            |
|             |       | 12               | 0            | 22.19              |  | 3   | 22.70            | 22.19              |  | 3   | 22.70            |
|             | 64QAM | 12               | 7            | 22.34              |  | 3   | 22.70            | 22.34              |  | 3   | 22.70            |
|             |       | 12               | 13           | 22.29              |  | 3   | 22.70            | 22.29              |  | 3   | 22.70            |
|             |       | 25               | 0            | 22.33              |  | 3   | 22.70            | 22.33              |  | 3   | 22.70            |

**LTE Band 13 Measured Results (ANT2)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |         |     |                  | Power Mode B (dBm) |         |     |                  |
|-------------|-------|------------------|--------------|--------------------|---------|-----|------------------|--------------------|---------|-----|------------------|
|             |       |                  |              | 23230              | 782 MHz | MPR | Tune-up<br>Limit | 23230              | 782 MHz | MPR | Tune-up<br>Limit |
| 10 MHz      | QPSK  | 1                | 0            | 23.99              |         | 0   | 24.50            | 23.99              |         | 0   | 24.50            |
|             |       | 1                | 25           | 24.00              |         | 0   | 24.50            | 24.00              |         | 0   | 24.50            |
|             |       | 1                | 49           | 23.69              |         | 0   | 24.50            | 23.69              |         | 0   | 24.50            |
|             |       | 25               | 0            | 22.59              |         | 1   | 23.50            | 22.59              |         | 1   | 23.50            |
|             |       | 25               | 12           | 23.00              |         | 1   | 23.50            | 23.00              |         | 1   | 23.50            |
|             |       | 25               | 25           | 22.60              |         | 1   | 23.50            | 22.60              |         | 1   | 23.50            |
|             |       | 50               | 0            | 23.00              |         | 1   | 23.50            | 23.00              |         | 1   | 23.50            |
|             | 16QAM | 1                | 0            | 23.34              |         | 1   | 23.50            | 23.34              |         | 1   | 23.50            |
|             |       | 1                | 25           | 22.98              |         | 1   | 23.50            | 22.98              |         | 1   | 23.50            |
|             |       | 1                | 49           | 23.12              |         | 1   | 23.50            | 23.12              |         | 1   | 23.50            |
|             |       | 25               | 0            | 21.57              |         | 2   | 22.50            | 21.57              |         | 2   | 22.50            |
|             |       | 25               | 12           | 21.64              |         | 2   | 22.50            | 21.64              |         | 2   | 22.50            |
|             | 64QAM | 25               | 25           | 21.65              |         | 2   | 22.50            | 21.65              |         | 2   | 22.50            |
|             |       | 50               | 0            | 21.69              |         | 2   | 22.50            | 21.69              |         | 2   | 22.50            |
|             |       | 1                | 0            | 22.14              |         | 2   | 22.50            | 22.14              |         | 2   | 22.50            |
|             |       | 1                | 25           | 21.97              |         | 2   | 22.50            | 21.97              |         | 2   | 22.50            |
|             |       | 1                | 49           | 22.04              |         | 2   | 22.50            | 22.04              |         | 2   | 22.50            |
|             |       | 25               | 0            | 20.63              |         | 3   | 21.50            | 20.63              |         | 3   | 21.50            |
|             |       | 25               | 12           | 20.73              |         | 3   | 21.50            | 20.73              |         | 3   | 21.50            |
|             |       | 25               | 25           | 20.67              |         | 3   | 21.50            | 20.67              |         | 3   | 21.50            |
|             |       | 50               | 0            | 20.77              |         | 3   | 21.50            | 20.77              |         | 3   | 21.50            |
| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |         |     |                  | Power Mode B (dBm) |         |     |                  |
|             |       |                  |              | 23230              | 782 MHz | MPR | Tune-up<br>Limit | 23230              | 782 MHz | MPR | Tune-up<br>Limit |
| 5 MHz       | QPSK  | 1                | 0            | 23.96              |         | 0   | 24.50            | 23.96              |         | 0   | 24.50            |
|             |       | 1                | 12           | 23.54              |         | 0   | 24.50            | 23.54              |         | 0   | 24.50            |
|             |       | 1                | 24           | 23.63              |         | 0   | 24.50            | 23.63              |         | 0   | 24.50            |
|             |       | 12               | 0            | 22.60              |         | 1   | 23.50            | 22.60              |         | 1   | 23.50            |
|             |       | 12               | 7            | 22.55              |         | 1   | 23.50            | 22.55              |         | 1   | 23.50            |
|             |       | 12               | 13           | 22.56              |         | 1   | 23.50            | 22.56              |         | 1   | 23.50            |
|             |       | 25               | 0            | 22.57              |         | 1   | 23.50            | 22.57              |         | 1   | 23.50            |
|             | 16QAM | 1                | 0            | 23.36              |         | 1   | 23.50            | 23.36              |         | 1   | 23.50            |
|             |       | 1                | 12           | 22.92              |         | 1   | 23.50            | 22.92              |         | 1   | 23.50            |
|             |       | 1                | 24           | 23.03              |         | 1   | 23.50            | 23.03              |         | 1   | 23.50            |
|             |       | 12               | 0            | 21.52              |         | 2   | 22.50            | 21.52              |         | 2   | 22.50            |
|             |       | 12               | 7            | 21.58              |         | 2   | 22.50            | 21.58              |         | 2   | 22.50            |
|             |       | 12               | 13           | 21.51              |         | 2   | 22.50            | 21.51              |         | 2   | 22.50            |
|             | 64QAM | 25               | 0            | 21.55              |         | 2   | 22.50            | 21.55              |         | 2   | 22.50            |
|             |       | 1                | 0            | 22.05              |         | 2   | 22.50            | 22.05              |         | 2   | 22.50            |
|             |       | 1                | 12           | 22.06              |         | 2   | 22.50            | 22.06              |         | 2   | 22.50            |
|             |       | 1                | 24           | 22.13              |         | 2   | 22.50            | 22.13              |         | 2   | 22.50            |
|             |       | 12               | 0            | 20.59              |         | 3   | 21.50            | 20.59              |         | 3   | 21.50            |
|             |       | 12               | 7            | 20.56              |         | 3   | 21.50            | 20.56              |         | 3   | 21.50            |
|             |       | 12               | 13           | 20.60              |         | 3   | 21.50            | 20.60              |         | 3   | 21.50            |
|             |       | 25               | 0            | 20.64              |         | 3   | 21.50            | 20.64              |         | 3   | 21.50            |

**LTE Band 14 Measured Results (ANT1)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |         |     |                  | Power Mode B (dBm) |         |     |                  |
|-------------|-------|------------------|--------------|--------------------|---------|-----|------------------|--------------------|---------|-----|------------------|
|             |       |                  |              | 23330              | 793 MHz | MPR | Tune-up<br>Limit | 23330              | 793 MHz | MPR | Tune-up<br>Limit |
| 10 MHz      | QPSK  | 1                | 0            | 25.16              |         | 0   | 25.70            | 25.16              |         | 0   | 25.70            |
|             |       | 1                | 25           | 25.20              |         | 0   | 25.70            | 25.20              |         | 0   | 25.70            |
|             |       | 1                | 49           | 25.20              |         | 0   | 25.70            | 25.20              |         | 0   | 25.70            |
|             |       | 25               | 0            | 24.04              |         | 1   | 24.70            | 24.04              |         | 1   | 24.70            |
|             |       | 25               | 12           | 24.30              |         | 1   | 24.70            | 24.30              |         | 1   | 24.70            |
|             |       | 25               | 25           | 24.06              |         | 1   | 24.70            | 24.06              |         | 1   | 24.70            |
|             | 16QAM | 50               | 0            | 24.20              |         | 1   | 24.70            | 24.20              |         | 1   | 24.70            |
|             |       | 1                | 0            | 24.43              |         | 1   | 24.70            | 24.43              |         | 1   | 24.70            |
|             |       | 1                | 25           | 24.40              |         | 1   | 24.70            | 24.40              |         | 1   | 24.70            |
|             |       | 1                | 49           | 24.54              |         | 1   | 24.70            | 24.54              |         | 1   | 24.70            |
|             |       | 25               | 0            | 23.03              |         | 2   | 23.70            | 23.03              |         | 2   | 23.70            |
|             |       | 25               | 12           | 23.02              |         | 2   | 23.70            | 23.02              |         | 2   | 23.70            |
|             | 64QAM | 25               | 25           | 23.13              |         | 2   | 23.70            | 23.13              |         | 2   | 23.70            |
|             |       | 50               | 0            | 23.48              |         | 2   | 23.70            | 23.48              |         | 2   | 23.70            |
|             |       | 1                | 0            | 23.49              |         | 2   | 23.70            | 23.49              |         | 2   | 23.70            |
|             |       | 1                | 25           | 23.40              |         | 2   | 23.70            | 23.40              |         | 2   | 23.70            |
|             |       | 1                | 49           | 23.61              |         | 2   | 23.70            | 23.61              |         | 2   | 23.70            |
|             |       | 25               | 0            | 22.47              |         | 3   | 22.70            | 22.47              |         | 3   | 22.70            |
| 5 MHz       | QPSK  | 25               | 12           | 22.49              |         | 3   | 22.70            | 22.49              |         | 3   | 22.70            |
|             |       | 25               | 25           | 22.59              |         | 3   | 22.70            | 22.59              |         | 3   | 22.70            |
|             |       | 50               | 0            | 22.45              |         | 3   | 22.70            | 22.45              |         | 3   | 22.70            |
|             | 16QAM | 1                | 0            | 25.10              |         | 0   | 25.70            | 25.10              |         | 0   | 25.70            |
|             |       | 1                | 12           | 25.01              |         | 0   | 25.70            | 25.01              |         | 0   | 25.70            |
|             |       | 1                | 24           | 25.02              |         | 0   | 25.70            | 25.02              |         | 0   | 25.70            |
|             |       | 12               | 0            | 24.30              |         | 1   | 24.70            | 24.30              |         | 1   | 24.70            |
|             |       | 12               | 7            | 24.00              |         | 1   | 24.70            | 24.00              |         | 1   | 24.70            |
|             |       | 12               | 13           | 24.27              |         | 1   | 24.70            | 24.27              |         | 1   | 24.70            |
|             | 64QAM | 25               | 0            | 24.34              |         | 1   | 24.70            | 24.34              |         | 1   | 24.70            |
|             |       | 1                | 0            | 24.45              |         | 1   | 24.70            | 24.45              |         | 1   | 24.70            |
|             |       | 1                | 12           | 24.33              |         | 1   | 24.70            | 24.33              |         | 1   | 24.70            |
|             |       | 1                | 24           | 24.40              |         | 1   | 24.70            | 24.40              |         | 1   | 24.70            |
|             |       | 12               | 0            | 23.30              |         | 2   | 23.70            | 23.30              |         | 2   | 23.70            |
|             |       | 12               | 7            | 23.39              |         | 2   | 23.70            | 23.39              |         | 2   | 23.70            |
|             | 16QAM | 12               | 13           | 23.25              |         | 2   | 23.70            | 23.25              |         | 2   | 23.70            |
|             |       | 25               | 0            | 23.32              |         | 2   | 23.70            | 23.32              |         | 2   | 23.70            |
|             | 64QAM | 1                | 0            | 23.44              |         | 2   | 23.70            | 23.44              |         | 2   | 23.70            |
|             |       | 1                | 12           | 23.70              |         | 2   | 23.70            | 23.70              |         | 2   | 23.70            |
|             |       | 1                | 24           | 23.56              |         | 2   | 23.70            | 23.56              |         | 2   | 23.70            |
|             |       | 12               | 0            | 22.38              |         | 3   | 22.70            | 22.38              |         | 3   | 22.70            |
|             | 64QAM | 12               | 7            | 22.28              |         | 3   | 22.70            | 22.28              |         | 3   | 22.70            |
|             |       | 12               | 13           | 22.34              |         | 3   | 22.70            | 22.34              |         | 3   | 22.70            |
|             |       | 25               | 0            | 22.29              |         | 3   | 22.70            | 22.29              |         | 3   | 22.70            |

**LTE Band 14 Measured Results (ANT2)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |         |     |                  | Power Mode B (dBm) |         |     |                  |
|-------------|-------|------------------|--------------|--------------------|---------|-----|------------------|--------------------|---------|-----|------------------|
|             |       |                  |              | 23330              | 793 MHz | MPR | Tune-up<br>Limit | 23330              | 793 MHz | MPR | Tune-up<br>Limit |
| 10 MHz      | QPSK  | 1                | 0            | 23.75              |         | 0   | 24.50            | 23.75              |         | 0   | 24.50            |
|             |       | 1                | 25           | 24.00              |         | 0   | 24.50            | 24.00              |         | 0   | 24.50            |
|             |       | 1                | 49           | 23.78              |         | 0   | 24.50            | 23.78              |         | 0   | 24.50            |
|             |       | 25               | 0            | 22.62              |         | 1   | 23.50            | 22.62              |         | 1   | 23.50            |
|             |       | 25               | 12           | 23.00              |         | 1   | 23.50            | 23.00              |         | 1   | 23.50            |
|             |       | 25               | 25           | 22.73              |         | 1   | 23.50            | 22.73              |         | 1   | 23.50            |
|             |       | 50               | 0            | 23.00              |         | 1   | 23.50            | 23.00              |         | 1   | 23.50            |
|             | 16QAM | 1                | 0            | 23.08              |         | 1   | 23.50            | 23.08              |         | 1   | 23.50            |
|             |       | 1                | 25           | 23.12              |         | 1   | 23.50            | 23.12              |         | 1   | 23.50            |
|             |       | 1                | 49           | 23.11              |         | 1   | 23.50            | 23.11              |         | 1   | 23.50            |
|             |       | 25               | 0            | 21.67              |         | 2   | 22.50            | 21.67              |         | 2   | 22.50            |
|             |       | 25               | 12           | 21.70              |         | 2   | 22.50            | 21.70              |         | 2   | 22.50            |
|             | 64QAM | 25               | 25           | 21.78              |         | 2   | 22.50            | 21.78              |         | 2   | 22.50            |
|             |       | 50               | 0            | 21.72              |         | 2   | 22.50            | 21.72              |         | 2   | 22.50            |
|             |       | 1                | 0            | 22.17              |         | 2   | 22.50            | 22.17              |         | 2   | 22.50            |
|             |       | 1                | 25           | 22.13              |         | 2   | 22.50            | 22.13              |         | 2   | 22.50            |
|             |       | 1                | 49           | 22.20              |         | 2   | 22.50            | 22.20              |         | 2   | 22.50            |
|             |       | 25               | 0            | 21.37              |         | 3   | 21.50            | 21.37              |         | 3   | 21.50            |
|             |       | 25               | 12           | 21.40              |         | 3   | 21.50            | 21.40              |         | 3   | 21.50            |
|             |       | 25               | 25           | 21.39              |         | 3   | 21.50            | 21.39              |         | 3   | 21.50            |
|             |       | 50               | 0            | 21.41              |         | 3   | 21.50            | 21.41              |         | 3   | 21.50            |
| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |         |     |                  | Power Mode B (dBm) |         |     |                  |
|             |       |                  |              | 23330              | 793 MHz | MPR | Tune-up<br>Limit | 23330              | 793 MHz | MPR | Tune-up<br>Limit |
| 5 MHz       | QPSK  | 1                | 0            | 23.68              |         | 0   | 24.50            | 23.68              |         | 0   | 24.50            |
|             |       | 1                | 12           | 23.69              |         | 0   | 24.50            | 23.69              |         | 0   | 24.50            |
|             |       | 1                | 24           | 23.75              |         | 0   | 24.50            | 23.75              |         | 0   | 24.50            |
|             |       | 12               | 0            | 22.51              |         | 1   | 23.50            | 22.51              |         | 1   | 23.50            |
|             |       | 12               | 7            | 22.62              |         | 1   | 23.50            | 22.62              |         | 1   | 23.50            |
|             |       | 12               | 13           | 22.60              |         | 1   | 23.50            | 22.60              |         | 1   | 23.50            |
|             |       | 25               | 0            | 22.60              |         | 1   | 23.50            | 22.60              |         | 1   | 23.50            |
|             | 16QAM | 1                | 0            | 23.09              |         | 1   | 23.50            | 23.09              |         | 1   | 23.50            |
|             |       | 1                | 12           | 23.10              |         | 1   | 23.50            | 23.10              |         | 1   | 23.50            |
|             |       | 1                | 24           | 23.21              |         | 1   | 23.50            | 23.21              |         | 1   | 23.50            |
|             |       | 12               | 0            | 21.56              |         | 2   | 22.50            | 21.56              |         | 2   | 22.50            |
|             |       | 12               | 7            | 21.65              |         | 2   | 22.50            | 21.65              |         | 2   | 22.50            |
|             |       | 12               | 13           | 21.66              |         | 2   | 22.50            | 21.66              |         | 2   | 22.50            |
|             | 64QAM | 25               | 0            | 21.62              |         | 2   | 22.50            | 21.62              |         | 2   | 22.50            |
|             |       | 1                | 0            | 22.24              |         | 2   | 22.50            | 22.24              |         | 2   | 22.50            |
|             |       | 1                | 12           | 22.22              |         | 2   | 22.50            | 22.22              |         | 2   | 22.50            |
|             |       | 1                | 24           | 22.25              |         | 2   | 22.50            | 22.25              |         | 2   | 22.50            |
|             |       | 12               | 0            | 21.21              |         | 3   | 21.50            | 21.21              |         | 3   | 21.50            |
|             |       | 12               | 7            | 21.26              |         | 3   | 21.50            | 21.26              |         | 3   | 21.50            |
|             |       | 12               | 13           | 21.26              |         | 3   | 21.50            | 21.26              |         | 3   | 21.50            |
|             |       | 25               | 0            | 21.27              |         | 3   | 21.50            | 21.27              |         | 3   | 21.50            |

**LTE Band 25 Measured Results (ANT1)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |            |          |     |                  | Power Mode B (dBm) |            |          |     |                  |
|-------------|-------|------------------|--------------|--------------------|------------|----------|-----|------------------|--------------------|------------|----------|-----|------------------|
|             |       |                  |              | 26140              | 26365      | 26590    | MPR | Tune-up<br>Limit | 26140              | 26365      | 26590    | MPR | Tune-up<br>Limit |
|             |       |                  |              | 1860 MHz           | 1882.5 MHz | 1905 MHz |     |                  | 1860 MHz           | 1882.5 MHz | 1905 MHz |     |                  |
| 20 MHz      | QPSK  | 1                | 0            | 24.76              | 24.73      | 24.75    | 0   | 25.70            | 21.57              | 21.48      | 21.32    | 0   | 21.75            |
|             |       | 1                | 49           | 25.20              | 25.20      | 25.20    | 0   | 25.70            | 21.60              | 21.60      | 21.50    | 0   | 21.75            |
|             |       | 1                | 99           | 24.74              | 24.78      | 24.79    | 0   | 25.70            | 21.51              | 21.46      | 21.36    | 0   | 21.75            |
|             |       | 50               | 0            | 23.83              | 23.72      | 23.77    | 1   | 24.70            | 21.60              | 21.43      | 21.22    | 0   | 21.75            |
|             |       | 50               | 24           | 24.20              | 24.20      | 24.20    | 1   | 24.70            | 21.60              | 21.60      | 21.50    | 0   | 21.75            |
|             |       | 50               | 50           | 24.33              | 24.12      | 23.97    | 1   | 24.70            | 21.49              | 21.43      | 21.30    | 0   | 21.75            |
|             | 16QAM | 100              | 0            | 24.20              | 24.20      | 24.20    | 1   | 24.70            | 21.50              | 21.50      | 21.40    | 0   | 21.75            |
|             |       | 1                | 0            | 24.09              | 24.06      | 23.88    | 1   | 24.70            | 21.18              | 21.49      | 21.73    | 0   | 21.75            |
|             |       | 1                | 49           | 24.17              | 24.22      | 24.02    | 1   | 24.70            | 21.16              | 21.57      | 21.74    | 0   | 21.75            |
|             |       | 1                | 99           | 24.07              | 24.05      | 23.98    | 1   | 24.70            | 21.11              | 21.52      | 21.68    | 0   | 21.75            |
|             |       | 50               | 0            | 23.35              | 23.17      | 23.01    | 2   | 23.70            | 21.69              | 21.48      | 21.29    | 0   | 21.75            |
|             |       | 50               | 24           | 23.30              | 23.23      | 23.19    | 2   | 23.70            | 21.66              | 21.49      | 21.43    | 0   | 21.75            |
|             | 64QAM | 50               | 50           | 23.24              | 23.19      | 23.10    | 2   | 23.70            | 21.57              | 21.46      | 21.38    | 0   | 21.75            |
|             |       | 100              | 0            | 23.28              | 23.18      | 23.15    | 2   | 23.70            | 21.57              | 21.47      | 21.43    | 0   | 21.75            |
|             |       | 1                | 0            | 23.37              | 23.56      | 23.47    | 2   | 23.70            | 21.37              | 21.49      | 21.42    | 0   | 21.75            |
|             |       | 1                | 49           | 23.43              | 23.70      | 23.55    | 2   | 23.70            | 21.41              | 21.61      | 21.55    | 0   | 21.75            |
|             |       | 1                | 99           | 23.35              | 23.42      | 23.54    | 2   | 23.70            | 21.72              | 21.43      | 21.54    | 0   | 21.75            |
|             |       | 50               | 0            | 22.35              | 22.22      | 22.04    | 3   | 22.70            | 21.38              | 21.66      | 21.60    | 0   | 21.75            |
| 15 MHz      | QPSK  | 50               | 24           | 22.34              | 22.32      | 22.20    | 3   | 22.70            | 21.34              | 21.71      | 21.27    | 0   | 21.75            |
|             |       | 50               | 50           | 22.27              | 22.22      | 22.13    | 3   | 22.70            | 21.70              | 21.64      | 21.67    | 0   | 21.75            |
|             |       | 100              | 0            | 22.32              | 22.28      | 22.23    | 3   | 22.70            | 21.26              | 21.66      | 21.25    | 0   | 21.75            |
|             | 16QAM | 1                | 0            | 25.24              | 25.14      | 25.03    | 0   | 25.70            | 21.43              | 21.41      | 21.24    | 0   | 21.75            |
|             |       | 1                | 37           | 25.25              | 25.13      | 25.25    | 0   | 25.70            | 21.51              | 21.48      | 21.44    | 0   | 21.75            |
|             |       | 1                | 74           | 25.16              | 25.09      | 25.15    | 0   | 25.70            | 21.45              | 21.43      | 21.41    | 0   | 21.75            |
|             |       | 36               | 0            | 24.27              | 24.17      | 24.13    | 1   | 24.70            | 21.58              | 21.45      | 21.36    | 0   | 21.75            |
|             |       | 36               | 20           | 24.25              | 24.29      | 24.14    | 1   | 24.70            | 21.52              | 21.56      | 21.44    | 0   | 21.75            |
|             |       | 36               | 39           | 24.29              | 24.15      | 24.07    | 1   | 24.70            | 21.50              | 21.44      | 21.39    | 0   | 21.75            |
|             | 64QAM | 75               | 0            | 24.24              | 24.18      | 24.10    | 1   | 24.70            | 21.45              | 21.44      | 21.40    | 0   | 21.75            |
|             |       | 1                | 0            | 24.53              | 24.50      | 24.38    | 1   | 24.70            | 21.69              | 21.70      | 21.63    | 0   | 21.75            |
|             |       | 1                | 37           | 24.57              | 24.62      | 24.56    | 1   | 24.70            | 21.69              | 21.70      | 21.68    | 0   | 21.75            |
|             |       | 1                | 74           | 24.55              | 24.47      | 24.44    | 1   | 24.70            | 21.58              | 21.73      | 21.66    | 0   | 21.75            |
|             |       | 36               | 0            | 23.39              | 23.24      | 23.14    | 2   | 23.70            | 21.59              | 21.55      | 21.47    | 0   | 21.75            |
|             |       | 36               | 20           | 23.36              | 23.36      | 23.15    | 2   | 23.70            | 21.56              | 21.60      | 21.51    | 0   | 21.75            |
| 10 MHz      | QPSK  | 36               | 39           | 23.37              | 23.22      | 23.11    | 2   | 23.70            | 21.56              | 21.46      | 21.43    | 0   | 21.75            |
|             |       | 75               | 0            | 23.30              | 23.27      | 23.18    | 2   | 23.70            | 21.54              | 21.49      | 21.46    | 0   | 21.75            |
|             | 16QAM | 1                | 0            | 23.52              | 23.34      | 23.23    | 2   | 23.70            | 21.44              | 21.36      | 21.23    | 0   | 21.75            |
|             |       | 1                | 37           | 23.63              | 23.49      | 23.54    | 2   | 23.70            | 21.58              | 21.48      | 21.41    | 0   | 21.75            |
|             |       | 1                | 74           | 23.54              | 23.48      | 23.46    | 2   | 23.70            | 21.49              | 21.34      | 21.37    | 0   | 21.75            |
|             |       | 36               | 0            | 22.42              | 22.24      | 22.22    | 3   | 22.70            | 21.29              | 21.72      | 21.70    | 0   | 21.75            |
|             | 64QAM | 36               | 20           | 22.39              | 22.38      | 22.25    | 3   | 22.70            | 21.30              | 21.33      | 21.74    | 0   | 21.75            |
|             |       | 36               | 39           | 22.36              | 22.23      | 22.18    | 3   | 22.70            | 21.35              | 21.75      | 21.71    | 0   | 21.75            |
|             |       | 75               | 0            | 22.30              | 22.22      | 22.17    | 3   | 22.70            | 21.29              | 21.27      | 21.66    | 0   | 21.75            |
|             | QPSK  | 1                | 0            | 25.21              | 25.11      | 25.21    | 0   | 25.70            | 21.54              | 21.43      | 21.51    | 0   | 21.75            |
|             |       | 1                | 25           | 25.31              | 25.17      | 25.07    | 0   | 25.70            | 21.65              | 21.51      | 21.39    | 0   | 21.75            |
|             |       | 1                | 49           | 25.33              | 25.13      | 25.18    | 0   | 25.70            | 21.64              | 21.46      | 21.50    | 0   | 21.75            |
|             |       | 25               | 0            | 24.22              | 24.19      | 24.12    | 1   | 24.70            | 21.52              | 21.50      | 21.43    | 0   | 21.75            |
|             |       | 25               | 12           | 24.28              | 24.21      | 23.97    | 1   | 24.70            | 21.60              | 21.51      | 21.33    | 0   | 21.75            |
|             |       | 25               | 25           | 24.27              | 24.17      | 24.05    | 1   | 24.70            | 21.58              | 21.47      | 21.35    | 0   | 21.75            |
|             | 16QAM | 50               | 0            | 24.29              | 24.15      | 24.03    | 1   | 24.70            | 21.59              | 21.46      | 21.32    | 0   | 21.75            |
|             |       | 1                | 0            | 24.01              | 24.02      | 24.12    | 1   | 24.70            | 21.37              | 21.43      | 21.45    | 0   | 21.75            |
|             |       | 1                | 25           | 24.13              | 24.16      | 23.92    | 1   | 24.70            | 21.49              | 21.54      | 21.71    | 0   | 21.75            |
|             |       | 1                | 49           | 24.16              | 24.07      | 24.05    | 1   | 24.70            | 21.48              | 21.45      | 21.40    | 0   | 21.75            |
|             |       | 25               | 0            | 23.25              | 23.29      | 23.17    | 2   | 23.70            | 21.55              | 21.59      | 21.47    | 0   | 21.75            |
|             |       | 25               | 12           | 23.40              | 23.34      | 23.08    | 2   | 23.70            | 21.63              | 21.61      | 21.35    | 0   | 21.75            |
|             | 64QAM | 25               | 25           | 23.38              | 23.31      | 23.12    | 2   | 23.70            | 21.60              | 21.55      | 21.41    | 0   | 21.75            |
|             |       | 50               | 0            | 23.39              | 23.28      | 23.17    | 2   | 23.70            | 21.63              | 21.52      | 21.42    | 0   | 21.75            |
|             |       | 1                | 0            | 23.38              | 23.42      | 23.50    | 2   | 23.70            | 21.70              | 21.66      | 21.36    | 0   | 21.75            |
|             |       | 1                | 25           | 23.45              | 23.54      | 23.40    | 2   | 23.70            | 21.38              | 21.38      | 21.68    | 0   | 21.75            |
|             |       | 1                | 49           | 23.47              | 23.45      | 23.45    | 2   | 23.70            | 21.40              | 21.36      | 21.74    | 0   | 21.75            |
|             |       | 25               | 0            | 22.24              | 22.30      | 22.30    | 3   | 22.70            | 21.72              | 21.42      | 21.72    | 0   | 21.75            |
|             | 64QAM | 25               | 12           | 22.33              | 22.33      | 22.18    | 3   | 22.70            | 21.42              | 21.44      | 21.65    | 0   | 21.75            |
|             |       | 25               | 25           | 22.29              | 22.32      | 22.22    | 3   | 22.70            | 21.43              | 21.41      | 21.71    | 0   | 21.75            |
|             |       | 50               | 0            | 22.34              | 22.27      | 22.23    | 3   | 22.70            | 21.43              | 21.36      | 21.71    | 0   | 21.75            |

**LTE Band 25 Measured Results (ANT1) (continued)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |            |            |     |                  | Power Mode B (dBm) |            |            |     |                  |
|-------------|-------|------------------|--------------|--------------------|------------|------------|-----|------------------|--------------------|------------|------------|-----|------------------|
|             |       |                  |              | 26065              | 26365      | 26665      | MPR | Tune-up<br>Limit | 26065              | 26365      | 26665      | MPR | Tune-up<br>Limit |
|             |       |                  |              | 1852.5 MHz         | 1882.5 MHz | 1912.5 MHz |     |                  | 1852.5 MHz         | 1882.5 MHz | 1912.5 MHz |     |                  |
| 5 MHz       | QPSK  | 1                | 0            | 25.13              | 25.34      | 25.15      | 0   | 25.70            | 21.34              | 21.50      | 21.38      | 0   | 21.75            |
|             |       | 1                | 12           | 25.23              | 25.21      | 25.14      | 0   | 25.70            | 21.40              | 21.41      | 21.35      | 0   | 21.75            |
|             |       | 1                | 24           | 25.35              | 25.26      | 25.22      | 0   | 25.70            | 21.52              | 21.45      | 21.42      | 0   | 21.75            |
|             |       | 12               | 0            | 24.15              | 24.17      | 24.04      | 1   | 24.70            | 21.32              | 21.36      | 21.26      | 0   | 21.75            |
|             |       | 12               | 7            | 24.14              | 24.16      | 24.04      | 1   | 24.70            | 21.33              | 21.37      | 21.27      | 0   | 21.75            |
|             |       | 12               | 13           | 24.19              | 24.15      | 24.01      | 1   | 24.70            | 21.40              | 21.29      | 21.24      | 0   | 21.75            |
|             | 16QAM | 25               | 0            | 24.12              | 24.18      | 24.05      | 1   | 24.70            | 21.32              | 21.32      | 21.28      | 0   | 21.75            |
|             |       | 1                | 0            | 24.51              | 24.64      | 24.57      | 1   | 24.70            | 21.75              | 21.50      | 21.57      | 0   | 21.75            |
|             |       | 1                | 12           | 24.57              | 24.52      | 24.52      | 1   | 24.70            | 21.52              | 21.71      | 21.52      | 0   | 21.75            |
|             |       | 1                | 24           | 24.42              | 24.57      | 24.69      | 1   | 24.70            | 21.67              | 21.49      | 21.60      | 0   | 21.75            |
|             |       | 12               | 0            | 23.67              | 23.46      | 23.52      | 2   | 23.70            | 21.35              | 21.41      | 21.27      | 0   | 21.75            |
|             |       | 12               | 7            | 23.69              | 23.46      | 23.58      | 2   | 23.70            | 21.34              | 21.43      | 21.30      | 0   | 21.75            |
|             | 64QAM | 12               | 13           | 23.15              | 23.12      | 23.55      | 2   | 23.70            | 21.41              | 21.37      | 21.27      | 0   | 21.75            |
|             |       | 25               | 0            | 23.07              | 23.05      | 23.55      | 2   | 23.70            | 21.34              | 21.31      | 21.29      | 0   | 21.75            |
|             |       | 1                | 0            | 23.29              | 23.47      | 23.49      | 2   | 23.70            | 21.33              | 21.51      | 21.48      | 0   | 21.75            |
|             |       | 1                | 12           | 23.36              | 23.43      | 23.40      | 2   | 23.70            | 21.39              | 21.46      | 21.36      | 0   | 21.75            |
|             |       | 1                | 24           | 23.54              | 23.48      | 23.52      | 2   | 23.70            | 21.52              | 21.49      | 21.55      | 0   | 21.75            |
|             |       | 12               | 0            | 22.07              | 22.14      | 22.01      | 3   | 22.70            | 21.59              | 21.59      | 21.52      | 0   | 21.75            |
| 3 MHz       | QPSK  | 12               | 7            | 22.07              | 22.15      | 22.02      | 3   | 22.70            | 21.59              | 21.62      | 21.50      | 0   | 21.75            |
|             |       | 12               | 13           | 22.12              | 22.05      | 22.62      | 3   | 22.70            | 21.68              | 21.60      | 21.49      | 0   | 21.75            |
|             |       | 25               | 0            | 22.01              | 22.06      | 22.01      | 3   | 22.70            | 21.55              | 21.60      | 21.49      | 0   | 21.75            |
|             | 16QAM | 1                | 0            | 25.14              | 25.25      | 25.17      | 0   | 25.70            | 21.22              | 21.40      | 21.27      | 0   | 21.75            |
|             |       | 1                | 8            | 25.29              | 25.28      | 25.22      | 0   | 25.70            | 21.34              | 21.39      | 21.27      | 0   | 21.75            |
|             |       | 1                | 14           | 25.28              | 25.17      | 25.21      | 0   | 25.70            | 21.31              | 21.37      | 21.27      | 0   | 21.75            |
|             |       | 8                | 0            | 24.11              | 24.13      | 24.05      | 1   | 24.70            | 21.15              | 21.30      | 21.14      | 0   | 21.75            |
|             |       | 8                | 4            | 24.10              | 24.17      | 24.01      | 1   | 24.70            | 21.15              | 21.30      | 21.14      | 0   | 21.75            |
|             |       | 8                | 7            | 24.11              | 24.12      | 24.01      | 1   | 24.70            | 21.16              | 21.25      | 21.14      | 0   | 21.75            |
|             | 64QAM | 15               | 0            | 24.12              | 24.14      | 24.03      | 1   | 24.70            | 21.16              | 21.26      | 21.13      | 0   | 21.75            |
|             |       | 1                | 0            | 24.45              | 24.67      | 24.42      | 1   | 24.70            | 21.48              | 21.66      | 21.59      | 0   | 21.75            |
|             |       | 1                | 8            | 24.56              | 24.42      | 24.51      | 1   | 24.70            | 21.62              | 21.74      | 21.62      | 0   | 21.75            |
|             |       | 1                | 14           | 24.54              | 24.59      | 24.54      | 1   | 24.70            | 21.54              | 21.72      | 21.66      | 0   | 21.75            |
|             |       | 8                | 0            | 23.66              | 23.58      | 23.69      | 2   | 23.70            | 21.18              | 21.32      | 21.12      | 0   | 21.75            |
|             |       | 8                | 4            | 23.15              | 23.17      | 23.01      | 2   | 23.70            | 21.19              | 21.33      | 21.11      | 0   | 21.75            |
| 1.4 MHz     | QPSK  | 8                | 7            | 23.15              | 23.11      | 23.00      | 2   | 23.70            | 21.23              | 21.28      | 21.10      | 0   | 21.75            |
|             |       | 15               | 0            | 23.13              | 23.07      | 23.02      | 2   | 23.70            | 21.22              | 21.24      | 21.12      | 0   | 21.75            |
|             |       | 1                | 0            | 23.33              | 23.53      | 23.38      | 2   | 23.70            | 21.62              | 21.30      | 21.28      | 0   | 21.75            |
|             |       | 1                | 8            | 23.42              | 23.50      | 23.40      | 2   | 23.70            | 21.32              | 21.43      | 21.69      | 0   | 21.75            |
|             |       | 1                | 14           | 23.47              | 23.45      | 23.38      | 2   | 23.70            | 21.30              | 21.37      | 21.30      | 0   | 21.75            |
|             |       | 8                | 0            | 22.07              | 22.15      | 22.08      | 3   | 22.70            | 21.39              | 21.51      | 21.37      | 0   | 21.75            |
|             | 16QAM | 8                | 4            | 22.12              | 22.14      | 22.09      | 3   | 22.70            | 21.37              | 21.52      | 21.33      | 0   | 21.75            |
|             |       | 8                | 7            | 22.12              | 22.11      | 22.08      | 3   | 22.70            | 21.39              | 21.48      | 21.31      | 0   | 21.75            |
|             |       | 15               | 0            | 22.06              | 22.11      | 22.08      | 3   | 22.70            | 21.36              | 21.44      | 21.28      | 0   | 21.75            |
|             |       | 1                | 0            | 25.11              | 25.23      | 25.11      | 0   | 25.70            | 21.29              | 21.46      | 21.30      | 0   | 21.75            |
|             |       | 1                | 3            | 25.16              | 25.24      | 25.14      | 0   | 25.70            | 21.30              | 21.42      | 21.26      | 0   | 21.75            |
|             |       | 1                | 5            | 25.21              | 25.19      | 25.18      | 0   | 25.70            | 21.37              | 21.42      | 21.34      | 0   | 21.75            |
|             | 64QAM | 3                | 0            | 24.98              | 25.13      | 24.95      | 0   | 25.70            | 21.15              | 21.36      | 21.14      | 0   | 21.75            |
|             |       | 3                | 1            | 25.03              | 25.11      | 24.95      | 0   | 25.70            | 21.23              | 21.36      | 21.14      | 0   | 21.75            |
|             |       | 3                | 3            | 25.06              | 25.03      | 24.98      | 0   | 25.70            | 21.24              | 21.30      | 21.15      | 0   | 21.75            |
|             |       | 6                | 0            | 24.06              | 24.14      | 24.06      | 1   | 24.70            | 21.18              | 21.25      | 21.13      | 0   | 21.75            |
|             |       | 1                | 0            | 24.47              | 24.62      | 24.54      | 1   | 24.70            | 21.65              | 21.68      | 21.61      | 0   | 21.75            |
|             |       | 1                | 3            | 24.48              | 24.56      | 24.51      | 1   | 24.70            | 21.68              | 21.69      | 21.63      | 0   | 21.75            |
| 1.4 MHz     | QPSK  | 1                | 5            | 24.58              | 24.54      | 24.56      | 1   | 24.70            | 21.67              | 21.66      | 21.71      | 0   | 21.75            |
|             |       | 3                | 0            | 24.25              | 24.31      | 24.19      | 1   | 24.70            | 21.30              | 21.49      | 21.26      | 0   | 21.75            |
|             |       | 3                | 1            | 24.30              | 24.35      | 24.16      | 1   | 24.70            | 21.39              | 21.46      | 21.29      | 0   | 21.75            |
|             |       | 3                | 3            | 24.32              | 24.26      | 24.19      | 1   | 24.70            | 21.38              | 21.41      | 21.30      | 0   | 21.75            |
|             |       | 6                | 0            | 23.19              | 23.16      | 23.68      | 2   | 23.70            | 21.28              | 21.29      | 21.08      | 0   | 21.75            |
|             |       | 1                | 0            | 23.54              | 23.60      | 23.37      | 2   | 23.70            | 21.70              | 21.43      | 21.67      | 0   | 21.75            |
|             | 16QAM | 1                | 3            | 23.58              | 23.51      | 23.40      | 2   | 23.70            | 21.28              | 21.39      | 21.73      | 0   | 21.75            |
|             |       | 1                | 5            | 23.65              | 23.56      | 23.45      | 2   | 23.70            | 21.75              | 21.39      | 21.29      | 0   | 21.75            |
|             |       | 3                | 0            | 23.30              | 23.25      | 23.18      | 2   | 23.70            | 21.50              | 21.70      | 21.37      | 0   | 21.75            |
|             |       | 3                | 1            | 23.37              | 23.26      | 23.17      | 2   | 23.70            | 21.57              | 21.72      | 21.35      | 0   | 21.75            |
|             |       | 3                | 3            | 23.31              | 23.16      | 23.20      | 2   | 23.70            | 21.60              | 21.66      | 21.39      | 0   | 21.75            |
|             |       | 6                | 0            | 22.11              | 22.20      | 22.09      | 3   | 22.70            | 21.48              | 21.41      | 21.37      | 0   | 21.75            |

**LTE Band 25 Measured Results (ANT2)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |            |          |     |                  | Power Mode B (dBm) |            |          |     |                  |
|-------------|-------|------------------|--------------|--------------------|------------|----------|-----|------------------|--------------------|------------|----------|-----|------------------|
|             |       |                  |              | 26140              | 26365      | 26590    | MPR | Tune-up<br>Limit | 26140              | 26365      | 26590    | MPR | Tune-up<br>Limit |
|             |       |                  |              | 1860 MHz           | 1882.5 MHz | 1905 MHz |     |                  | 1860 MHz           | 1882.5 MHz | 1905 MHz |     |                  |
| 20 MHz      | QPSK  | 1                | 0            | 20.12              | 20.08      | 19.98    | 0   | 20.50            | 18.20              | 18.24      | 18.15    | 0   | 18.50            |
|             |       | 1                | 49           | 20.36              | 20.50      | 20.25    | 0   | 20.50            | 18.34              | 18.40      | 18.33    | 0   | 18.50            |
|             |       | 1                | 99           | 20.22              | 20.11      | 19.99    | 0   | 20.50            | 18.33              | 18.36      | 18.13    | 0   | 18.50            |
|             |       | 50               | 0            | 20.13              | 20.08      | 19.83    | 0   | 20.50            | 18.19              | 18.33      | 17.97    | 0   | 18.50            |
|             |       | 50               | 24           | 20.38              | 20.47      | 20.27    | 0   | 20.50            | 18.27              | 18.41      | 18.20    | 0   | 18.50            |
|             |       | 50               | 50           | 20.17              | 20.07      | 20.00    | 0   | 20.50            | 18.25              | 18.28      | 18.10    | 0   | 18.50            |
|             | 16QAM | 100              | 0            | 20.38              | 20.46      | 20.30    | 0   | 20.50            | 18.30              | 18.49      | 18.26    | 0   | 18.50            |
|             |       | 1                | 0            | 20.42              | 20.43      | 20.31    | 0   | 20.50            | 18.50              | 18.26      | 18.42    | 0   | 18.50            |
|             |       | 1                | 49           | 20.40              | 20.48      | 20.25    | 0   | 20.50            | 18.24              | 18.33      | 18.34    | 0   | 18.50            |
|             |       | 1                | 99           | 20.47              | 20.45      | 20.35    | 0   | 20.50            | 18.38              | 18.40      | 18.49    | 0   | 18.50            |
|             |       | 50               | 0            | 20.22              | 20.15      | 19.93    | 0   | 20.50            | 18.27              | 18.38      | 18.04    | 0   | 18.50            |
|             |       | 50               | 24           | 20.19              | 20.20      | 19.96    | 0   | 20.50            | 18.33              | 18.40      | 18.08    | 0   | 18.50            |
|             | 64QAM | 50               | 50           | 20.19              | 20.14      | 20.11    | 0   | 20.50            | 18.36              | 18.39      | 18.22    | 0   | 18.50            |
|             |       | 100              | 0            | 20.16              | 20.13      | 19.99    | 0   | 20.50            | 18.32              | 18.35      | 18.12    | 0   | 18.50            |
|             |       | 1                | 0            | 20.48              | 20.26      | 20.33    | 0   | 20.50            | 18.44              | 18.30      | 18.18    | 0   | 18.50            |
|             |       | 1                | 49           | 20.47              | 20.29      | 20.40    | 0   | 20.50            | 18.47              | 18.10      | 18.05    | 0   | 18.50            |
|             |       | 1                | 99           | 20.21              | 20.48      | 20.46    | 0   | 20.50            | 18.47              | 18.06      | 18.03    | 0   | 18.50            |
|             |       | 50               | 0            | 19.90              | 19.87      | 19.56    | 0   | 20.50            | 18.41              | 18.37      | 18.07    | 0   | 18.50            |
| 15 MHz      | QPSK  | 50               | 24           | 19.90              | 19.83      | 19.61    | 0   | 20.50            | 18.40              | 18.30      | 18.11    | 0   | 18.50            |
|             |       | 50               | 50           | 19.91              | 19.76      | 19.67    | 0   | 20.50            | 18.41              | 18.29      | 18.21    | 0   | 18.50            |
|             |       | 100              | 0            | 19.88              | 19.75      | 19.63    | 0   | 20.50            | 18.40              | 18.24      | 18.16    | 0   | 18.50            |
|             | 16QAM | 1                | 0            | 19.91              | 20.07      | 19.91    | 0   | 20.50            | 18.00              | 18.14      | 18.02    | 0   | 18.50            |
|             |       | 1                | 37           | 20.01              | 20.14      | 20.05    | 0   | 20.50            | 18.16              | 18.23      | 18.19    | 0   | 18.50            |
|             |       | 1                | 74           | 20.06              | 20.08      | 19.94    | 0   | 20.50            | 18.19              | 18.20      | 18.05    | 0   | 18.50            |
|             |       | 36               | 0            | 20.03              | 20.12      | 19.95    | 0   | 20.50            | 18.14              | 18.20      | 18.00    | 0   | 18.50            |
|             |       | 36               | 20           | 20.08              | 20.13      | 20.05    | 0   | 20.50            | 18.11              | 18.22      | 18.10    | 0   | 18.50            |
|             |       | 36               | 39           | 20.09              | 20.10      | 20.05    | 0   | 20.50            | 18.13              | 18.19      | 18.16    | 0   | 18.50            |
|             | 64QAM | 75               | 0            | 20.06              | 20.10      | 19.98    | 0   | 20.50            | 18.12              | 18.23      | 18.13    | 0   | 18.50            |
|             |       | 1                | 0            | 20.25              | 20.46      | 20.23    | 0   | 20.50            | 18.39              | 18.30      | 18.37    | 0   | 18.50            |
|             |       | 1                | 37           | 20.35              | 20.43      | 20.43    | 0   | 20.50            | 18.30              | 18.34      | 18.32    | 0   | 18.50            |
|             |       | 1                | 74           | 20.40              | 20.45      | 20.25    | 0   | 20.50            | 18.33              | 18.38      | 18.35    | 0   | 18.50            |
|             |       | 36               | 0            | 20.09              | 20.18      | 19.95    | 0   | 20.50            | 18.20              | 18.21      | 18.08    | 0   | 18.50            |
|             |       | 36               | 20           | 20.10              | 20.21      | 20.02    | 0   | 20.50            | 18.17              | 18.29      | 18.21    | 0   | 18.50            |
| 10 MHz      | QPSK  | 36               | 39           | 20.14              | 20.17      | 20.09    | 0   | 20.50            | 18.20              | 18.26      | 18.24    | 0   | 18.50            |
|             |       | 75               | 0            | 20.10              | 20.19      | 20.02    | 0   | 20.50            | 18.18              | 18.30      | 18.20    | 0   | 18.50            |
|             | 16QAM | 1                | 0            | 20.23              | 20.31      | 20.29    | 0   | 20.50            | 18.12              | 18.12      | 18.30    | 0   | 18.50            |
|             |       | 1                | 37           | 20.38              | 20.48      | 20.40    | 0   | 20.50            | 18.17              | 18.42      | 18.40    | 0   | 18.50            |
|             |       | 1                | 74           | 20.36              | 20.37      | 20.27    | 0   | 20.50            | 18.20              | 18.36      | 18.37    | 0   | 18.50            |
|             |       | 36               | 0            | 19.89              | 19.88      | 19.68    | 0   | 20.50            | 18.47              | 18.37      | 18.16    | 0   | 18.50            |
|             | 64QAM | 36               | 20           | 19.91              | 19.75      | 19.68    | 0   | 20.50            | 18.49              | 18.29      | 18.19    | 0   | 18.50            |
|             |       | 36               | 39           | 19.92              | 19.78      | 19.67    | 0   | 20.50            | 18.42              | 18.30      | 18.23    | 0   | 18.50            |
|             |       | 75               | 0            | 19.88              | 19.71      | 19.62    | 0   | 20.50            | 18.38              | 18.26      | 18.15    | 0   | 18.50            |
|             | QPSK  | 1                | 0            | 19.97              | 20.06      | 20.04    | 0   | 20.50            | 18.03              | 18.23      | 18.07    | 0   | 18.50            |
|             |       | 1                | 25           | 20.11              | 20.07      | 20.11    | 0   | 20.50            | 18.10              | 18.25      | 18.17    | 0   | 18.50            |
|             |       | 1                | 49           | 20.16              | 20.07      | 20.02    | 0   | 20.50            | 18.14              | 18.26      | 18.16    | 0   | 18.50            |
|             |       | 25               | 0            | 20.00              | 20.07      | 19.98    | 0   | 20.50            | 18.04              | 18.22      | 18.06    | 0   | 18.50            |
|             |       | 25               | 12           | 20.06              | 20.07      | 20.02    | 0   | 20.50            | 18.08              | 18.24      | 18.12    | 0   | 18.50            |
|             |       | 25               | 25           | 20.09              | 20.10      | 19.98    | 0   | 20.50            | 18.10              | 18.26      | 18.08    | 0   | 18.50            |
| 10 MHz      | 16QAM | 50               | 0            | 20.07              | 20.10      | 20.01    | 0   | 20.50            | 18.11              | 18.25      | 18.11    | 0   | 18.50            |
|             |       | 1                | 0            | 20.23              | 20.42      | 20.50    | 0   | 20.50            | 18.33              | 18.46      | 18.47    | 0   | 18.50            |
|             |       | 1                | 25           | 20.34              | 20.45      | 20.47    | 0   | 20.50            | 18.41              | 18.31      | 18.39    | 0   | 18.50            |
|             |       | 1                | 49           | 20.40              | 20.48      | 20.35    | 0   | 20.50            | 18.47              | 18.36      | 18.50    | 0   | 18.50            |
|             |       | 25               | 0            | 20.04              | 20.14      | 20.02    | 0   | 20.50            | 18.15              | 18.33      | 18.17    | 0   | 18.50            |
|             |       | 25               | 12           | 20.08              | 20.15      | 20.08    | 0   | 20.50            | 18.22              | 18.35      | 18.19    | 0   | 18.50            |
|             | 64QAM | 25               | 25           | 20.11              | 20.17      | 19.98    | 0   | 20.50            | 18.24              | 18.37      | 18.13    | 0   | 18.50            |
|             |       | 50               | 0            | 20.10              | 20.15      | 20.08    | 0   | 20.50            | 18.22              | 18.32      | 18.19    | 0   | 18.50            |
|             |       | 1                | 0            | 20.21              | 20.29      | 20.34    | 0   | 20.50            | 18.04              | 18.09      | 18.42    | 0   | 18.50            |
|             |       | 1                | 25           | 20.25              | 20.49      | 20.22    | 0   | 20.50            | 18.06              | 18.49      | 18.49    | 0   | 18.50            |
|             |       | 1                | 49           | 20.32              | 20.20      | 20.40    | 0   | 20.50            | 18.11              | 18.48      | 18.49    | 0   | 18.50            |
|             |       | 25               | 0            | 19.86              | 19.84      | 19.67    | 0   | 20.50            | 18.44              | 18.32      | 18.19    | 0   | 18.50            |
| 10 MHz      | QPSK  | 25               | 12           | 19.90              | 19.84      | 19.72    | 0   | 20.50            | 18.46              | 18.30      | 18.24    | 0   | 18.50            |
|             |       | 25               | 25           | 19.92              | 19.85      | 19.59    | 0   | 20.50            | 18.47              | 18.30      | 18.16    | 0   | 18.50            |
|             |       | 50               | 0            | 19.88              | 19.84      | 19.62    | 0   | 20.50            | 18.43              | 18.29      | 18.20    | 0   | 18.5             |
|             | 16QAM | 1                | 0            | 19.97              | 20.06      | 20.04    | 0   | 20.50            | 18.03              | 18.23      | 18.07    | 0   | 18.50            |
|             |       | 1                | 25           | 20.11              | 20.07      | 20.11    | 0   | 20.50            | 18.10              | 18.25      | 18.17    | 0   | 18.50            |
|             |       | 1                | 49           | 20.16              | 20.07      | 20.02    | 0   | 20.50            | 18.14              | 18.26      | 18.16    | 0   | 18.50            |
|             | 64QAM | 25               | 0            | 20.00              | 20.07      | 19.98    | 0   | 20.50            | 18.04              | 18.22      | 18.06    | 0   | 18.50            |
|             |       | 25               | 12           | 20.06              | 20.07      | 20.02    | 0   | 20.50            | 18.08              | 18.24      | 18.12    | 0   | 18.50            |
|             |       | 25               | 25           | 20.09              | 20.10      | 19.98    | 0   | 20.50            | 18.10              | 18.26      | 18.08    | 0   | 18.50            |
|             |       | 50               | 0            | 20.07              | 20.10      | 20.01    | 0   | 20.50            | 18.11              | 18.25      | 18.11    | 0   | 18.50            |
|             | QPSK  | 1                | 0            | 20.23              | 20.42      | 20.50    | 0   | 20.50            | 18.33              | 18.46      | 18.47    | 0   | 18.50            |
|             |       | 1                | 25           | 20.34              | 20.45      | 20.47    | 0   | 20.50            | 18.41              | 18.31      | 18.39    | 0   | 18.50            |
|             |       | 1                | 49           | 20.40              | 20.48      | 20.35    | 0   | 20.50            | 18.47              | 18.36      | 18.50    | 0   | 18.50            |
|             |       | 25               | 0            | 20.04              | 20.14      | 20.02    | 0   | 20.50            | 18.15              | 18.33      | 18.17    | 0   | 18.50            |
|             |       | 25               | 12           | 20.08              | 20.15      | 20.08    | 0   | 20.50            | 18.22              | 18.35      | 18.19    | 0   | 18.50            |
|             |       | 25               | 25           | 20.11              | 20.17      | 19.98    | 0   | 20.50            | 18.24              | 18.37      | 18.13    | 0   | 18.50            |
|             | 16QAM | 50               | 0            | 20.10              | 20.15      | 20.08    | 0   | 20.50            | 18.22              | 18.32      | 18.19    | 0   | 18.50            |
|             |       | 1                | 0            | 20.21              | 20.29      | 20.34    | 0   | 20.50            | 18.04              | 18.09      | 18.42    | 0   | 18.50            |
|             |       | 1                | 25           | 20.25              | 20.49      | 20.22    | 0   | 20.50            | 18.06              | 18.49      | 18.49    | 0   | 18.50            |
|             |       | 1                | 49           | 20.32              | 20.20      | 20.40    | 0   | 20.50            | 18.11              | 18.48      | 18.49    | 0   | 18.50            |
|             |       | 25               | 0            | 19.86              | 19.84      | 19.67    | 0   | 20.50            | 18.44              | 18.32      | 18.19    | 0   | 18.50            |
|             |       | 25               | 12           | 19.90              | 19.84      | 19.72    | 0   | 20.50            | 18.46              | 18.30      | 18.24    | 0   | 18.50            |
|             | 64QAM | 25               | 25           | 19.92              | 19.85      | 19.59    | 0   | 20.50            | 18.47              | 18.30      | 18.16    | 0   | 18.50            |
|             |       | 50               | 0            | 19.88              | 19.84      | 19.62    | 0   | 20.50            | 18.43              | 18.29      | 18.20    | 0   | 18.5             |

**LTE Band 25 Measured Results (ANT2) (continued)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |            |            |     |                  | Power Mode B (dBm) |            |            |     |                  |
|-------------|-------|------------------|--------------|--------------------|------------|------------|-----|------------------|--------------------|------------|------------|-----|------------------|
|             |       |                  |              | 26065              | 26365      | 26665      | MPR | Tune-up<br>Limit | 26065              | 26365      | 26665      | MPR | Tune-up<br>Limit |
|             |       |                  |              | 1852.5 MHz         | 1882.5 MHz | 1912.5 MHz |     |                  | 1852.5 MHz         | 1882.5 MHz | 1912.5 MHz |     |                  |
| 5 MHz       | QPSK  | 1                | 0            | 19.85              | 20.08      | 20.05      | 0   | 20.50            | 18.00              | 18.24      | 18.21      | 0   | 18.50            |
|             |       | 1                | 12           | 19.84              | 20.08      | 19.94      | 0   | 20.50            | 17.99              | 18.23      | 18.08      | 0   | 18.50            |
|             |       | 1                | 24           | 19.96              | 20.13      | 19.95      | 0   | 20.50            | 18.05              | 18.27      | 18.12      | 0   | 18.50            |
|             |       | 12               | 0            | 19.75              | 19.99      | 19.95      | 0   | 20.50            | 17.90              | 18.14      | 18.10      | 0   | 18.50            |
|             |       | 12               | 7            | 19.78              | 19.98      | 19.86      | 0   | 20.50            | 17.92              | 18.15      | 17.99      | 0   | 18.50            |
|             |       | 12               | 13           | 19.85              | 19.98      | 19.84      | 0   | 20.50            | 17.96              | 18.14      | 17.98      | 0   | 18.50            |
|             | 16QAM | 25               | 0            | 19.78              | 19.97      | 19.86      | 0   | 20.50            | 17.92              | 18.15      | 18.00      | 0   | 18.50            |
|             |       | 1                | 0            | 20.24              | 20.37      | 20.47      | 0   | 20.50            | 18.39              | 18.48      | 18.49      | 0   | 18.50            |
|             |       | 1                | 12           | 20.28              | 20.40      | 20.35      | 0   | 20.50            | 18.43              | 18.49      | 18.42      | 0   | 18.50            |
|             |       | 1                | 24           | 20.35              | 20.44      | 20.36      | 0   | 20.50            | 18.45              | 18.48      | 18.46      | 0   | 18.50            |
|             |       | 12               | 0            | 19.74              | 20.01      | 19.94      | 0   | 20.50            | 17.91              | 18.18      | 18.04      | 0   | 18.50            |
|             |       | 12               | 7            | 19.78              | 20.00      | 19.85      | 0   | 20.50            | 17.93              | 18.19      | 18.00      | 0   | 18.50            |
|             | 64QAM | 12               | 13           | 19.85              | 20.02      | 19.86      | 0   | 20.50            | 17.96              | 18.19      | 17.98      | 0   | 18.50            |
|             |       | 25               | 0            | 19.79              | 19.97      | 19.85      | 0   | 20.50            | 17.93              | 18.15      | 17.97      | 0   | 18.50            |
|             |       | 1                | 0            | 20.44              | 20.21      | 20.26      | 0   | 20.50            | 18.01              | 18.06      | 18.49      | 0   | 18.50            |
|             |       | 1                | 12           | 20.49              | 20.43      | 20.36      | 0   | 20.50            | 18.50              | 18.01      | 18.46      | 0   | 18.50            |
|             |       | 1                | 24           | 20.29              | 20.22      | 20.43      | 0   | 20.50            | 18.10              | 18.49      | 18.46      | 0   | 18.50            |
|             |       | 12               | 0            | 19.65              | 19.62      | 19.53      | 0   | 20.50            | 18.24              | 18.15      | 18.00      | 0   | 18.50            |
| 3 MHz       | QPSK  | 12               | 7            | 19.66              | 19.57      | 19.52      | 0   | 20.50            | 18.20              | 18.13      | 17.92      | 0   | 18.50            |
|             |       | 12               | 13           | 19.70              | 19.59      | 19.52      | 0   | 20.50            | 18.24              | 18.12      | 17.96      | 0   | 18.50            |
|             |       | 25               | 0            | 19.62              | 19.59      | 19.52      | 0   | 20.50            | 18.18              | 18.14      | 17.93      | 0   | 18.50            |
|             | 16QAM | 1                | 0            | 19.79              | 19.90      | 19.85      | 0   | 20.50            | 18.03              | 18.19      | 18.12      | 0   | 18.50            |
|             |       | 1                | 8            | 19.89              | 19.97      | 19.86      | 0   | 20.50            | 18.15              | 18.24      | 18.16      | 0   | 18.50            |
|             |       | 1                | 14           | 19.81              | 19.92      | 19.81      | 0   | 20.50            | 18.04              | 18.18      | 18.08      | 0   | 18.50            |
|             |       | 8                | 0            | 19.66              | 19.80      | 19.75      | 0   | 20.50            | 17.88              | 18.09      | 17.99      | 0   | 18.50            |
|             |       | 8                | 4            | 19.70              | 19.79      | 19.73      | 0   | 20.50            | 17.95              | 18.07      | 17.98      | 0   | 18.50            |
|             |       | 8                | 7            | 19.71              | 19.80      | 19.72      | 0   | 20.50            | 17.94              | 18.08      | 17.96      | 0   | 18.50            |
|             | 64QAM | 15               | 0            | 19.70              | 19.83      | 19.72      | 0   | 20.50            | 17.95              | 18.10      | 17.97      | 0   | 18.50            |
|             |       | 1                | 0            | 20.05              | 20.25      | 20.14      | 0   | 20.50            | 18.27              | 18.46      | 18.48      | 0   | 18.50            |
|             |       | 1                | 8            | 20.15              | 20.29      | 20.15      | 0   | 20.50            | 18.41              | 18.47      | 18.40      | 0   | 18.50            |
|             |       | 1                | 14           | 20.07              | 20.27      | 20.12      | 0   | 20.50            | 18.28              | 18.45      | 18.46      | 0   | 18.50            |
|             |       | 8                | 0            | 19.67              | 19.81      | 19.72      | 0   | 20.50            | 17.91              | 18.11      | 17.98      | 0   | 18.50            |
|             |       | 8                | 4            | 19.73              | 19.81      | 19.69      | 0   | 20.50            | 17.97              | 18.11      | 17.95      | 0   | 18.50            |
| 1.4 MHz     | QPSK  | 8                | 7            | 19.71              | 19.83      | 19.68      | 0   | 20.50            | 17.98              | 18.11      | 17.96      | 0   | 18.50            |
|             |       | 15               | 0            | 19.69              | 19.79      | 19.70      | 0   | 20.50            | 17.95              | 18.07      | 17.99      | 0   | 18.50            |
|             | 16QAM | 1                | 0            | 20.23              | 20.40      | 20.23      | 0   | 20.50            | 18.30              | 18.41      | 18.33      | 0   | 18.50            |
|             |       | 1                | 8            | 20.37              | 20.35      | 20.29      | 0   | 20.50            | 18.46              | 18.48      | 18.38      | 0   | 18.50            |
|             |       | 1                | 14           | 20.32              | 20.33      | 20.21      | 0   | 20.50            | 18.38              | 18.35      | 18.32      | 0   | 18.50            |
|             |       | 8                | 0            | 19.51              | 19.52      | 19.54      | 0   | 20.50            | 18.05              | 18.09      | 18.24      | 0   | 18.50            |
|             | 64QAM | 8                | 4            | 19.60              | 19.52      | 19.54      | 0   | 20.50            | 18.02              | 18.09      | 18.24      | 0   | 18.50            |
|             |       | 8                | 7            | 19.50              | 19.52      | 19.53      | 0   | 20.50            | 18.03              | 18.08      | 18.22      | 0   | 18.50            |
|             |       | 15               | 0            | 19.60              | 19.56      | 19.56      | 0   | 20.50            | 18.01              | 18.03      | 18.14      | 0   | 18.50            |
|             | QPSK  | 1                | 0            | 19.86              | 20.02      | 19.88      | 0   | 20.50            | 18.03              | 18.22      | 18.18      | 0   | 18.50            |
|             |       | 1                | 3            | 19.81              | 19.98      | 19.86      | 0   | 20.50            | 18.00              | 18.18      | 18.15      | 0   | 18.50            |
|             |       | 1                | 5            | 19.86              | 20.01      | 19.90      | 0   | 20.50            | 18.02              | 18.19      | 18.18      | 0   | 18.50            |
|             |       | 3                | 0            | 19.70              | 19.90      | 19.75      | 0   | 20.50            | 17.93              | 18.08      | 18.00      | 0   | 18.50            |
|             |       | 3                | 1            | 19.68              | 19.89      | 19.74      | 0   | 20.50            | 17.92              | 18.08      | 17.99      | 0   | 18.50            |
|             |       | 3                | 3            | 19.68              | 19.90      | 19.74      | 0   | 20.50            | 17.92              | 18.07      | 17.99      | 0   | 18.50            |
|             | 16QAM | 6                | 0            | 19.61              | 19.86      | 19.72      | 0   | 20.50            | 17.86              | 18.05      | 17.90      | 0   | 18.50            |
|             |       | 1                | 0            | 20.15              | 20.17      | 20.19      | 0   | 20.50            | 18.23              | 18.49      | 18.47      | 0   | 18.50            |
|             |       | 1                | 3            | 20.00              | 20.14      | 20.20      | 0   | 20.50            | 18.23              | 18.45      | 18.41      | 0   | 18.50            |
|             |       | 1                | 5            | 20.12              | 20.20      | 20.23      | 0   | 20.50            | 18.26              | 18.43      | 18.46      | 0   | 18.50            |
|             |       | 3                | 0            | 19.85              | 19.95      | 19.84      | 0   | 20.50            | 18.04              | 18.20      | 18.14      | 0   | 18.50            |
|             |       | 3                | 1            | 19.82              | 19.93      | 19.85      | 0   | 20.50            | 17.97              | 18.18      | 18.14      | 0   | 18.50            |
|             | 64QAM | 3                | 3            | 19.81              | 19.96      | 19.84      | 0   | 20.50            | 17.98              | 18.22      | 18.16      | 0   | 18.50            |
|             |       | 6                | 0            | 19.74              | 19.86      | 19.67      | 0   | 20.50            | 17.90              | 18.03      | 18.08      | 0   | 18.50            |
|             |       | 1                | 0            | 20.21              | 20.37      | 20.23      | 0   | 20.50            | 18.13              | 18.45      | 18.31      | 0   | 18.50            |
|             |       | 1                | 3            | 20.28              | 20.26      | 20.18      | 0   | 20.50            | 18.13              | 18.41      | 18.26      | 0   | 18.50            |
|             |       | 1                | 5            | 20.34              | 20.36      | 20.26      | 0   | 20.50            | 18.14              | 18.00      | 18.23      | 0   | 18.50            |
|             |       | 3                | 0            | 20.23              | 20.07      | 20.03      | 0   | 20.50            | 18.20              | 18.20      | 18.05      | 0   | 18.50            |
|             | 64QAM | 3                | 1            | 20.26              | 20.05      | 20.03      | 0   | 20.50            | 18.29              | 18.16      | 18.04      | 0   | 18.50            |
|             |       | 3                | 3            | 20.22              | 20.04      | 20.02      | 0   | 20.50            | 18.28              | 18.16      | 18.07      | 0   | 18.50            |
|             |       | 6                | 0            | 19.59              | 19.57      | 19.53      | 0   | 20.50            | 18.06              | 18.12      | 17.94      | 0   | 18.50            |

**LTE Band 25 Measured Results (ANT3)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |            |          |     |                  | Power Mode B (dBm) |            |          |     |                  |
|-------------|-------|------------------|--------------|--------------------|------------|----------|-----|------------------|--------------------|------------|----------|-----|------------------|
|             |       |                  |              | 26140              | 26365      | 26590    | MPR | Tune-up<br>Limit | 26140              | 26365      | 26590    | MPR | Tune-up<br>Limit |
|             |       |                  |              | 1860 MHz           | 1882.5 MHz | 1905 MHz |     |                  | 1860 MHz           | 1882.5 MHz | 1905 MHz |     |                  |
| 20 MHz      | QPSK  | 1                | 0            | 24.65              | 24.77      | 24.54    | 0   | 25.00            | 19.51              | 19.64      | 19.45    | 0   | 19.75            |
|             |       | 1                | 49           | 25.00              | 24.90      | 24.90    | 0   | 25.00            | 19.60              | 19.70      | 19.50    | 0   | 19.75            |
|             |       | 1                | 99           | 24.89              | 24.70      | 24.43    | 0   | 25.00            | 19.59              | 19.66      | 19.31    | 0   | 19.75            |
|             |       | 50               | 0            | 23.77              | 23.76      | 23.49    | 1   | 24.00            | 19.60              | 19.61      | 19.31    | 0   | 19.75            |
|             |       | 50               | 24           | 24.00              | 23.90      | 23.80    | 1   | 24.00            | 19.60              | 19.70      | 19.50    | 0   | 19.75            |
|             |       | 50               | 50           | 23.73              | 23.74      | 23.55    | 1   | 24.00            | 19.60              | 19.56      | 19.39    | 0   | 19.75            |
|             | 16QAM | 100              | 0            | 24.00              | 23.90      | 23.80    | 1   | 24.00            | 19.50              | 19.70      | 19.50    | 0   | 19.75            |
|             |       | 1                | 0            | 24.00              | 23.30      | 23.92    | 1   | 24.00            | 19.67              | 19.68      | 19.54    | 0   | 19.75            |
|             |       | 1                | 49           | 23.04              | 23.23      | 23.74    | 1   | 24.00            | 19.74              | 19.65      | 19.62    | 0   | 19.75            |
|             |       | 1                | 99           | 23.20              | 23.09      | 23.81    | 1   | 24.00            | 19.68              | 19.39      | 19.69    | 0   | 19.75            |
|             |       | 50               | 0            | 22.84              | 22.80      | 22.53    | 2   | 23.00            | 19.66              | 19.67      | 19.44    | 0   | 19.75            |
|             |       | 50               | 24           | 22.72              | 22.77      | 22.45    | 2   | 23.00            | 19.61              | 19.71      | 19.34    | 0   | 19.75            |
|             | 64QAM | 50               | 50           | 22.77              | 22.72      | 22.57    | 2   | 23.00            | 19.72              | 19.64      | 19.46    | 0   | 19.75            |
|             |       | 100              | 0            | 22.70              | 22.76      | 22.42    | 2   | 23.00            | 19.59              | 19.67      | 19.36    | 0   | 19.75            |
|             |       | 1                | 0            | 22.96              | 22.90      | 22.94    | 2   | 23.00            | 19.57              | 19.63      | 19.42    | 0   | 19.75            |
|             |       | 1                | 49           | 22.95              | 22.87      | 22.98    | 2   | 23.00            | 19.66              | 19.64      | 19.74    | 0   | 19.75            |
|             |       | 1                | 99           | 22.87              | 22.90      | 22.98    | 2   | 23.00            | 19.48              | 19.54      | 19.48    | 0   | 19.75            |
|             |       | 50               | 0            | 21.82              | 21.90      | 21.90    | 3   | 22.00            | 19.70              | 19.60      | 19.46    | 0   | 19.75            |
| 15 MHz      | QPSK  | 50               | 24           | 21.92              | 21.92      | 21.88    | 3   | 22.00            | 19.57              | 19.66      | 19.36    | 0   | 19.75            |
|             |       | 50               | 50           | 21.97              | 21.86      | 21.98    | 3   | 22.00            | 19.66              | 19.66      | 19.53    | 0   | 19.75            |
|             |       | 100              | 0            | 21.89              | 21.91      | 21.83    | 3   | 22.00            | 19.53              | 19.69      | 19.40    | 0   | 19.75            |
|             | 16QAM | 1                | 0            | 24.62              | 24.74      | 24.53    | 0   | 25.00            | 19.39              | 19.62      | 19.35    | 0   | 19.75            |
|             |       | 1                | 37           | 24.74              | 24.68      | 24.51    | 0   | 25.00            | 19.57              | 19.60      | 19.44    | 0   | 19.75            |
|             |       | 1                | 74           | 24.72              | 24.56      | 24.47    | 0   | 25.00            | 19.58              | 19.53      | 19.31    | 0   | 19.75            |
|             |       | 36               | 0            | 23.76              | 23.65      | 23.43    | 1   | 24.00            | 19.60              | 19.58      | 19.24    | 0   | 19.75            |
|             |       | 36               | 20           | 23.74              | 23.81      | 23.51    | 1   | 24.00            | 19.59              | 19.71      | 19.40    | 0   | 19.75            |
|             |       | 36               | 39           | 23.68              | 23.68      | 23.52    | 1   | 24.00            | 19.57              | 19.57      | 19.42    | 0   | 19.75            |
|             | 64QAM | 75               | 0            | 23.71              | 23.70      | 23.48    | 1   | 24.00            | 19.62              | 19.63      | 19.37    | 0   | 19.75            |
|             |       | 1                | 0            | 23.89              | 23.24      | 23.93    | 1   | 24.00            | 19.28              | 19.55      | 19.28    | 0   | 19.75            |
|             |       | 1                | 37           | 23.11              | 23.16      | 23.90    | 1   | 24.00            | 19.47              | 19.52      | 19.37    | 0   | 19.75            |
|             |       | 1                | 74           | 23.11              | 24.00      | 23.77    | 1   | 24.00            | 19.47              | 19.49      | 19.69    | 0   | 19.75            |
|             |       | 36               | 0            | 22.79              | 22.71      | 22.45    | 2   | 23.00            | 19.67              | 19.68      | 19.32    | 0   | 19.75            |
|             |       | 36               | 20           | 22.76              | 22.81      | 22.51    | 2   | 23.00            | 19.67              | 19.18      | 19.46    | 0   | 19.75            |
| 10 MHz      | QPSK  | 36               | 39           | 22.71              | 22.69      | 22.52    | 2   | 23.00            | 19.62              | 19.62      | 19.47    | 0   | 19.75            |
|             |       | 75               | 0            | 22.72              | 22.74      | 22.46    | 2   | 23.00            | 19.65              | 19.66      | 19.43    | 0   | 19.75            |
|             | 16QAM | 1                | 0            | 22.92              | 22.97      | 22.91    | 2   | 23.00            | 19.73              | 19.38      | 19.65    | 0   | 19.75            |
|             |       | 1                | 37           | 22.82              | 22.90      | 22.96    | 2   | 23.00            | 19.55              | 19.43      | 19.70    | 0   | 19.75            |
|             |       | 1                | 74           | 22.81              | 22.86      | 23.00    | 2   | 23.00            | 19.55              | 19.43      | 19.74    | 0   | 19.75            |
|             |       | 36               | 0            | 21.99              | 21.97      | 21.89    | 3   | 22.00            | 19.66              | 19.64      | 19.37    | 0   | 19.75            |
|             | 64QAM | 36               | 20           | 21.82              | 21.86      | 21.82    | 3   | 22.00            | 19.66              | 19.75      | 19.44    | 0   | 19.75            |
|             |       | 36               | 39           | 21.97              | 21.98      | 22.00    | 3   | 22.00            | 19.62              | 19.66      | 19.49    | 0   | 19.75            |
|             |       | 75               | 0            | 21.96              | 21.96      | 21.92    | 3   | 22.00            | 19.63              | 19.66      | 19.41    | 0   | 19.75            |
|             | QPSK  | 1                | 0            | 24.63              | 24.62      | 24.54    | 0   | 25.00            | 19.48              | 19.67      | 19.43    | 0   | 19.75            |
|             |       | 1                | 25           | 24.70              | 24.78      | 24.52    | 0   | 25.00            | 19.68              | 19.28      | 19.50    | 0   | 19.75            |
|             |       | 1                | 49           | 24.74              | 24.62      | 24.52    | 0   | 25.00            | 19.66              | 19.66      | 19.38    | 0   | 19.75            |
|             |       | 25               | 0            | 23.59              | 23.75      | 23.46    | 1   | 24.00            | 19.54              | 19.69      | 19.36    | 0   | 19.75            |
|             |       | 25               | 12           | 23.75              | 23.78      | 23.48    | 1   | 24.00            | 19.63              | 19.71      | 19.41    | 0   | 19.75            |
|             |       | 25               | 25           | 23.72              | 23.73      | 23.43    | 1   | 24.00            | 19.60              | 19.67      | 19.36    | 0   | 19.75            |
|             | 16QAM | 50               | 0            | 23.78              | 23.73      | 23.50    | 1   | 24.00            | 19.62              | 19.65      | 19.40    | 0   | 19.75            |
|             |       | 1                | 0            | 23.88              | 23.30      | 23.85    | 1   | 24.00            | 19.73              | 19.52      | 19.30    | 0   | 19.75            |
|             |       | 1                | 25           | 23.26              | 23.34      | 23.88    | 1   | 24.00            | 19.41              | 19.62      | 19.38    | 0   | 19.75            |
|             |       | 1                | 49           | 23.27              | 24.00      | 23.81    | 1   | 24.00            | 19.47              | 19.49      | 19.29    | 0   | 19.75            |
|             |       | 25               | 0            | 22.70              | 22.85      | 22.48    | 2   | 23.00            | 19.61              | 19.27      | 19.47    | 0   | 19.75            |
|             |       | 25               | 12           | 22.79              | 22.83      | 22.51    | 2   | 23.00            | 19.70              | 19.29      | 19.48    | 0   | 19.75            |
|             | 64QAM | 25               | 25           | 22.75              | 22.77      | 22.44    | 2   | 23.00            | 19.68              | 19.30      | 19.42    | 0   | 19.75            |
|             |       | 50               | 0            | 22.77              | 22.76      | 22.50    | 2   | 23.00            | 19.70              | 19.26      | 19.46    | 0   | 19.75            |
|             |       | 1                | 0            | 22.80              | 22.97      | 22.97    | 2   | 23.00            | 19.65              | 19.53      | 19.70    | 0   | 19.75            |
|             |       | 1                | 25           | 22.92              | 22.82      | 22.96    | 2   | 23.00            | 19.40              | 19.58      | 19.68    | 0   | 19.75            |
|             |       | 1                | 49           | 22.99              | 22.88      | 22.95    | 2   | 23.00            | 19.45              | 19.51      | 19.68    | 0   | 19.75            |
|             |       | 25               | 0            | 21.93              | 21.84      | 21.98    | 3   | 22.00            | 19.63              | 19.37      | 19.45    | 0   | 19.75            |
|             | 64QAM | 25               | 12           | 21.85              | 21.91      | 21.82    | 3   | 22.00            | 19.74              | 19.39      | 19.49    | 0   | 19.75            |
|             |       | 25               | 25           | 21.81              | 21.84      | 21.93    | 3   | 22.00            | 19.73              | 19.73      | 19.43    | 0   | 19.75            |
|             |       | 50               | 0            | 21.85              | 21.99      | 21.81    | 3   | 22.00            | 19.75              | 19.64      | 19.48    | 0   | 19.75            |

**LTE Band 25 Measured Results (ANT3) (continued)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |            |            |     |                  | Power Mode B (dBm) |            |            |     |                  |
|-------------|-------|------------------|--------------|--------------------|------------|------------|-----|------------------|--------------------|------------|------------|-----|------------------|
|             |       |                  |              | 26065              | 26365      | 26665      | MPR | Tune-up<br>Limit | 26065              | 26365      | 26665      | MPR | Tune-up<br>Limit |
|             |       |                  |              | 1852.5 MHz         | 1882.5 MHz | 1912.5 MHz |     |                  | 1852.5 MHz         | 1882.5 MHz | 1912.5 MHz |     |                  |
| 5 MHz       | QPSK  | 1                | 0            | 24.53              | 24.71      | 24.50      | 0   | 25.00            | 19.35              | 19.70      | 19.44      | 0   | 19.75            |
|             |       | 1                | 12           | 24.55              | 24.63      | 24.35      | 0   | 25.00            | 19.46              | 19.59      | 19.36      | 0   | 19.75            |
|             |       | 1                | 24           | 24.65              | 24.70      | 24.46      | 0   | 25.00            | 19.58              | 19.67      | 19.32      | 0   | 19.75            |
|             |       | 12               | 0            | 23.42              | 23.65      | 23.35      | 1   | 24.00            | 19.30              | 19.57      | 19.29      | 0   | 19.75            |
|             |       | 12               | 7            | 23.48              | 23.65      | 23.28      | 1   | 24.00            | 19.39              | 19.58      | 19.24      | 0   | 19.75            |
|             |       | 12               | 13           | 23.57              | 23.59      | 23.26      | 1   | 24.00            | 19.50              | 19.53      | 19.20      | 0   | 19.75            |
|             |       | 25               | 0            | 23.49              | 23.59      | 23.31      | 1   | 24.00            | 19.40              | 19.53      | 19.26      | 0   | 19.75            |
|             | 16QAM | 1                | 0            | 23.94              | 23.32      | 23.88      | 1   | 24.00            | 19.74              | 19.53      | 19.41      | 0   | 19.75            |
|             |       | 1                | 12           | 23.98              | 23.90      | 23.81      | 1   | 24.00            | 19.34              | 19.48      | 19.34      | 0   | 19.75            |
|             |       | 1                | 24           | 23.42              | 23.97      | 23.87      | 1   | 24.00            | 19.50              | 19.50      | 19.35      | 0   | 19.75            |
|             |       | 12               | 0            | 22.42              | 22.66      | 22.38      | 2   | 23.00            | 19.30              | 19.64      | 19.35      | 0   | 19.75            |
|             |       | 12               | 7            | 22.48              | 22.65      | 22.31      | 2   | 23.00            | 19.40              | 19.62      | 19.30      | 0   | 19.75            |
|             |       | 12               | 13           | 22.55              | 22.62      | 22.26      | 2   | 23.00            | 19.49              | 19.56      | 19.26      | 0   | 19.75            |
|             |       | 25               | 0            | 22.46              | 22.61      | 22.31      | 2   | 23.00            | 19.41              | 19.50      | 19.27      | 0   | 19.75            |
|             | 64QAM | 1                | 0            | 22.97              | 22.82      | 22.89      | 2   | 23.00            | 19.58              | 19.50      | 19.50      | 0   | 19.75            |
|             |       | 1                | 12           | 22.84              | 22.94      | 22.81      | 2   | 23.00            | 19.71              | 19.43      | 19.43      | 0   | 19.75            |
|             |       | 1                | 24           | 22.91              | 22.97      | 22.81      | 2   | 23.00            | 19.48              | 19.53      | 19.44      | 0   | 19.75            |
|             |       | 12               | 0            | 21.83              | 21.83      | 21.80      | 3   | 22.00            | 19.35              | 19.57      | 19.41      | 0   | 19.75            |
|             |       | 12               | 7            | 21.97              | 21.84      | 21.80      | 3   | 22.00            | 19.43              | 19.55      | 19.35      | 0   | 19.75            |
|             |       | 12               | 13           | 21.82              | 21.81      | 21.77      | 3   | 22.00            | 19.49              | 19.48      | 19.33      | 0   | 19.75            |
|             |       | 25               | 0            | 21.89              | 21.80      | 21.78      | 3   | 22.00            | 19.33              | 19.50      | 19.34      | 0   | 19.75            |
| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |            |            |     |                  | Power Mode B (dBm) |            |            |     |                  |
|             |       |                  |              | 26055              | 26365      | 26675      | MPR | Tune-up<br>Limit | 26055              | 26365      | 26675      | MPR | Tune-up<br>Limit |
|             |       |                  |              | 1851.5 MHz         | 1882.5 MHz | 1913.5 MHz |     |                  | 1851.5 MHz         | 1882.5 MHz | 1913.5 MHz |     |                  |
| 3 MHz       | QPSK  | 1                | 0            | 24.47              | 24.58      | 24.34      | 0   | 25.00            | 19.28              | 19.50      | 19.33      | 0   | 19.75            |
|             |       | 1                | 8            | 24.57              | 24.57      | 24.31      | 0   | 25.00            | 19.43              | 19.49      | 19.31      | 0   | 19.75            |
|             |       | 1                | 14           | 24.51              | 24.55      | 24.32      | 0   | 25.00            | 19.39              | 19.46      | 19.23      | 0   | 19.75            |
|             |       | 8                | 0            | 23.33              | 23.51      | 23.19      | 1   | 24.00            | 19.15              | 19.40      | 19.15      | 0   | 19.75            |
|             |       | 8                | 4            | 23.39              | 23.50      | 23.16      | 1   | 24.00            | 19.23              | 19.40      | 19.12      | 0   | 19.75            |
|             |       | 8                | 7            | 23.39              | 23.44      | 23.15      | 1   | 24.00            | 19.26              | 19.34      | 19.12      | 0   | 19.75            |
|             |       | 15               | 0            | 23.39              | 23.46      | 23.18      | 1   | 24.00            | 19.26              | 19.34      | 19.13      | 0   | 19.75            |
|             | 16QAM | 1                | 0            | 23.76              | 23.87      | 23.61      | 1   | 24.00            | 19.53              | 19.31      | 19.66      | 0   | 19.75            |
|             |       | 1                | 8            | 23.84              | 23.86      | 23.63      | 1   | 24.00            | 19.69              | 19.31      | 19.67      | 0   | 19.75            |
|             |       | 1                | 14           | 23.79              | 23.82      | 23.60      | 1   | 24.00            | 19.67              | 19.33      | 19.53      | 0   | 19.75            |
|             |       | 8                | 0            | 22.33              | 22.49      | 22.14      | 2   | 23.00            | 19.18              | 19.43      | 19.16      | 0   | 19.75            |
|             |       | 8                | 4            | 22.38              | 22.53      | 22.11      | 2   | 23.00            | 19.27              | 19.42      | 19.11      | 0   | 19.75            |
|             |       | 8                | 7            | 22.39              | 22.48      | 22.13      | 2   | 23.00            | 19.27              | 19.34      | 19.12      | 0   | 19.75            |
|             |       | 15               | 0            | 22.39              | 22.45      | 22.18      | 2   | 23.00            | 19.24              | 19.34      | 19.14      | 0   | 19.75            |
|             | 64QAM | 1                | 0            | 22.98              | 22.89      | 22.87      | 2   | 23.00            | 19.42              | 19.47      | 19.58      | 0   | 19.75            |
|             |       | 1                | 8            | 22.86              | 22.84      | 22.98      | 2   | 23.00            | 19.57              | 19.41      | 19.65      | 0   | 19.75            |
|             |       | 1                | 14           | 22.94              | 22.97      | 22.89      | 2   | 23.00            | 19.53              | 19.37      | 19.43      | 0   | 19.75            |
|             |       | 8                | 0            | 21.68              | 21.98      | 21.61      | 3   | 22.00            | 19.11              | 19.51      | 19.13      | 0   | 19.75            |
|             |       | 8                | 4            | 21.78              | 21.98      | 21.57      | 3   | 22.00            | 19.20              | 19.52      | 19.11      | 0   | 19.75            |
|             |       | 8                | 7            | 21.78              | 21.92      | 21.60      | 3   | 22.00            | 19.23              | 19.47      | 19.13      | 0   | 19.75            |
|             |       | 15               | 0            | 21.77              | 21.87      | 21.54      | 3   | 22.00            | 19.24              | 19.40      | 19.05      | 0   | 19.75            |
| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |            |            |     |                  | Power Mode B (dBm) |            |            |     |                  |
|             |       |                  |              | 26047              | 26365      | 26683      | MPR | Tune-up<br>Limit | 26047              | 26365      | 26683      | MPR | Tune-up<br>Limit |
|             |       |                  |              | 1850.7 MHz         | 1882.5 MHz | 1914.3 MHz |     |                  | 1850.7 MHz         | 1882.5 MHz | 1914.3 MHz |     |                  |
| 1.4 MHz     | QPSK  | 1                | 0            | 24.53              | 24.64      | 24.37      | 0   | 25.00            | 19.31              | 19.64      | 19.45      | 0   | 19.75            |
|             |       | 1                | 3            | 24.52              | 24.64      | 24.33      | 0   | 25.00            | 19.30              | 19.63      | 19.60      | 0   | 19.75            |
|             |       | 1                | 5            | 24.50              | 24.61      | 24.41      | 0   | 25.00            | 19.35              | 19.60      | 19.59      | 0   | 19.75            |
|             |       | 3                | 0            | 24.33              | 24.58      | 24.21      | 0   | 25.00            | 19.21              | 19.50      | 19.50      | 0   | 19.75            |
|             |       | 3                | 1            | 24.32              | 24.54      | 24.21      | 0   | 25.00            | 19.19              | 19.49      | 19.51      | 0   | 19.75            |
|             |       | 3                | 3            | 24.31              | 24.48      | 24.20      | 0   | 25.00            | 19.18              | 19.41      | 19.44      | 0   | 19.75            |
|             |       | 6                | 0            | 23.30              | 23.46      | 23.21      | 1   | 24.00            | 19.17              | 19.34      | 19.42      | 0   | 19.75            |
|             | 16QAM | 1                | 0            | 23.76              | 23.87      | 23.74      | 1   | 24.00            | 19.67              | 19.41      | 19.54      | 0   | 19.75            |
|             |       | 1                | 3            | 23.79              | 23.88      | 23.67      | 1   | 24.00            | 19.65              | 19.48      | 19.45      | 0   | 19.75            |
|             |       | 1                | 5            | 23.77              | 23.82      | 23.69      | 1   | 24.00            | 19.66              | 19.36      | 19.42      | 0   | 19.75            |
|             |       | 3                | 0            | 23.50              | 23.66      | 23.35      | 1   | 24.00            | 19.31              | 19.66      | 19.67      | 0   | 19.75            |
|             |       | 3                | 1            | 23.52              | 23.63      | 23.33      | 1   | 24.00            | 19.30              | 19.67      | 19.70      | 0   | 19.75            |
|             |       | 3                | 3            | 23.51              | 23.58      | 23.33      | 1   | 24.00            | 19.30              | 19.62      | 19.58      | 0   | 19.75            |
|             |       | 6                | 0            | 22.40              | 22.44      | 22.13      | 2   | 23.00            | 19.15              | 19.51      | 19.43      | 0   | 19.75            |
|             | 64QAM | 1                | 0            | 22.99              | 22.82      | 22.86      | 2   | 23.00            | 19.71              | 19.64      | 19.75      | 0   | 19.75            |
|             |       | 1                | 3            | 22.88              | 22.97      | 22.98      | 2   | 23.00            | 19.71              | 19.66      | 19.39      | 0   | 19.75            |
|             |       | 1                | 5            | 22.88              | 22.82      | 22.81      | 2   | 23.00            | 19.36              | 19.66      | 19.39      | 0   | 19.75            |
|             |       | 3                | 0            | 22.88              | 22.94      | 22.64      | 2   | 23.00            | 19.45              | 19.40      | 19.46      | 0   | 19.75            |
|             |       | 3                | 1            | 22.86              | 22.92      | 22.61      | 2   | 23.00            | 19.49              | 19.46      | 19.50      | 0   | 19.75            |
|             |       | 3                | 3            | 22.84              | 22.88      | 22.63      | 2   | 23.00            | 19.50              | 19.42      | 19.53      | 0   | 19.75            |
|             |       | 6                | 0            | 21.70              | 21.93      | 21.66      | 3   | 22.00            | 19.45              | 19.41      | 19.52      | 0   | 19.75            |

**LTE Band 25 Measured Results (ANT4)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |            |            |     |                  | Power Mode B (dBm) |            |            |     |                  |
|-------------|-------|------------------|--------------|--------------------|------------|------------|-----|------------------|--------------------|------------|------------|-----|------------------|
|             |       |                  |              | 26140              | 26365      | 26590      | MPR | Tune-up<br>Limit | 26140              | 26365      | 26590      | MPR | Tune-up<br>Limit |
|             |       |                  |              | 1860 MHz           | 1882.5 MHz | 1905 MHz   |     |                  | 1860 MHz           | 1882.5 MHz | 1905 MHz   |     |                  |
| 20 MHz      | QPSK  | 1                | 0            | 18.37              | 18.60      | 18.45      | 0   | 18.75            | 19.52              | 19.83      | 19.74      | 0   | 20.00            |
|             |       | 1                | 49           | 18.60              | 18.70      | 18.50      | 0   | 18.75            | 19.80              | 19.90      | 19.80      | 0   | 20.00            |
|             |       | 1                | 99           | 18.51              | 18.42      | 18.43      | 0   | 18.75            | 19.85              | 19.67      | 19.67      | 0   | 20.00            |
|             |       | 50               | 0            | 18.18              | 18.43      | 18.21      | 0   | 18.75            | 19.45              | 19.68      | 19.44      | 0   | 20.00            |
|             |       | 50               | 24           | 18.60              | 18.65      | 18.50      | 0   | 18.75            | 19.70              | 19.90      | 19.80      | 0   | 20.00            |
|             |       | 50               | 50           | 18.41              | 18.36      | 18.32      | 0   | 18.75            | 19.68              | 19.65      | 19.56      | 0   | 20.00            |
|             |       | 100              | 0            | 18.50              | 18.65      | 18.50      | 0   | 18.75            | 19.70              | 19.90      | 19.80      | 0   | 20.00            |
|             | 16QAM | 1                | 0            | 18.49              | 18.55      | 18.51      | 0   | 18.75            | 19.87              | 19.86      | 19.94      | 0   | 20.00            |
|             |       | 1                | 49           | 18.45              | 18.56      | 18.66      | 0   | 18.75            | 19.99              | 19.81      | 19.89      | 0   | 20.00            |
|             |       | 1                | 99           | 18.68              | 18.71      | 18.48      | 0   | 18.75            | 19.94              | 19.99      | 19.96      | 0   | 20.00            |
|             |       | 50               | 0            | 18.25              | 18.44      | 18.26      | 0   | 18.75            | 19.43              | 19.75      | 19.53      | 0   | 20.00            |
|             |       | 50               | 24           | 18.34              | 18.32      | 18.35      | 0   | 18.75            | 19.57              | 19.65      | 19.57      | 0   | 20.00            |
|             |       | 50               | 50           | 18.43              | 18.40      | 18.38      | 0   | 18.75            | 19.71              | 19.69      | 19.62      | 0   | 20.00            |
|             |       | 100              | 0            | 18.34              | 18.32      | 18.41      | 0   | 18.75            | 19.57              | 19.63      | 19.60      | 0   | 20.00            |
|             | 64QAM | 1                | 0            | 18.23              | 18.73      | 18.48      | 0   | 18.75            | 19.60              | 19.97      | 19.84      | 0   | 20.00            |
|             |       | 1                | 49           | 18.30              | 18.70      | 18.53      | 0   | 18.75            | 19.57              | 19.88      | 19.82      | 0   | 20.00            |
|             |       | 1                | 99           | 18.42              | 18.47      | 18.54      | 0   | 18.75            | 19.60              | 19.72      | 19.77      | 0   | 20.00            |
|             |       | 50               | 0            | 18.23              | 18.43      | 18.12      | 0   | 18.75            | 19.01              | 19.19      | 18.91      | 0   | 20.00            |
|             |       | 50               | 24           | 18.28              | 18.31      | 18.24      | 0   | 18.75            | 19.00              | 19.04      | 19.01      | 0   | 20.00            |
|             |       | 50               | 50           | 18.28              | 18.21      | 18.25      | 0   | 18.75            | 18.95              | 18.94      | 19.02      | 0   | 20.00            |
|             |       | 100              | 0            | 18.26              | 18.22      | 18.25      | 0   | 18.75            | 18.99              | 19.01      | 19.03      | 0   | 20.00            |
| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |            |            |     |                  | Power Mode B (dBm) |            |            |     |                  |
|             |       |                  |              | 26115              | 26365      | 26615      | MPR | Tune-up<br>Limit | 26115              | 26365      | 26615      | MPR | Tune-up<br>Limit |
|             |       |                  |              | 1857.5 MHz         | 1882.5 MHz | 1907.5 MHz |     |                  | 1857.5 MHz         | 1882.5 MHz | 1907.5 MHz |     |                  |
| 15 MHz      | QPSK  | 1                | 0            | 18.25              | 18.55      | 18.26      | 0   | 18.75            | 19.46              | 19.73      | 19.53      | 0   | 20.00            |
|             |       | 1                | 37           | 18.23              | 18.28      | 18.37      | 0   | 18.75            | 19.43              | 19.51      | 19.63      | 0   | 20.00            |
|             |       | 1                | 74           | 18.39              | 18.32      | 18.43      | 0   | 18.75            | 19.65              | 19.56      | 19.52      | 0   | 20.00            |
|             |       | 36               | 0            | 18.12              | 18.33      | 18.32      | 0   | 18.75            | 19.39              | 19.57      | 19.52      | 0   | 20.00            |
|             |       | 36               | 20           | 18.24              | 18.27      | 18.32      | 0   | 18.75            | 19.48              | 19.52      | 19.53      | 0   | 20.00            |
|             |       | 36               | 39           | 18.27              | 18.37      | 18.30      | 0   | 18.75            | 19.52              | 19.61      | 19.54      | 0   | 20.00            |
|             |       | 75               | 0            | 18.21              | 18.30      | 18.30      | 0   | 18.75            | 19.45              | 19.54      | 19.52      | 0   | 20.00            |
|             | 16QAM | 1                | 0            | 18.57              | 18.64      | 18.52      | 0   | 18.75            | 19.80              | 19.98      | 19.80      | 0   | 20.00            |
|             |       | 1                | 37           | 18.54              | 18.68      | 18.48      | 0   | 18.75            | 19.75              | 19.84      | 19.94      | 0   | 20.00            |
|             |       | 1                | 74           | 18.74              | 18.74      | 18.72      | 0   | 18.75            | 19.95              | 19.92      | 19.81      | 0   | 20.00            |
|             |       | 36               | 0            | 18.18              | 18.39      | 18.32      | 0   | 18.75            | 19.45              | 19.57      | 19.57      | 0   | 20.00            |
|             |       | 36               | 20           | 18.30              | 18.33      | 18.33      | 0   | 18.75            | 19.53              | 19.53      | 19.57      | 0   | 20.00            |
|             |       | 36               | 39           | 18.34              | 18.44      | 18.35      | 0   | 18.75            | 19.56              | 19.61      | 19.57      | 0   | 20.00            |
|             |       | 75               | 0            | 18.28              | 18.37      | 18.34      | 0   | 18.75            | 19.47              | 19.58      | 19.56      | 0   | 20.00            |
|             | 64QAM | 1                | 0            | 18.48              | 18.56      | 18.24      | 0   | 18.75            | 19.68              | 19.79      | 19.54      | 0   | 20.00            |
|             |       | 1                | 37           | 18.58              | 18.42      | 18.48      | 0   | 18.75            | 19.76              | 19.77      | 19.72      | 0   | 20.00            |
|             |       | 1                | 74           | 18.47              | 18.30      | 18.35      | 0   | 18.75            | 19.61              | 19.65      | 19.54      | 0   | 20.00            |
|             |       | 36               | 0            | 18.27              | 18.41      | 18.26      | 0   | 18.75            | 19.03              | 19.21      | 18.98      | 0   | 20.00            |
|             |       | 36               | 20           | 18.37              | 18.39      | 18.31      | 0   | 18.75            | 19.11              | 19.13      | 19.00      | 0   | 20.00            |
|             |       | 36               | 39           | 18.32              | 18.20      | 18.23      | 0   | 18.75            | 19.07              | 19.01      | 19.00      | 0   | 20.00            |
|             |       | 75               | 0            | 18.28              | 18.24      | 18.18      | 0   | 18.75            | 19.07              | 19.03      | 18.98      | 0   | 20.00            |
| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |            |            |     |                  | Power Mode B (dBm) |            |            |     |                  |
|             |       |                  |              | 26090              | 26365      | 26640      | MPR | Tune-up<br>Limit | 26090              | 26365      | 26640      | MPR | Tune-up<br>Limit |
|             |       |                  |              | 1855 MHz           | 1882.5 MHz | 1910 MHz   |     |                  | 1855 MHz           | 1882.5 MHz | 1910 MHz   |     |                  |
| 10 MHz      | QPSK  | 1                | 0            | 18.27              | 18.43      | 18.40      | 0   | 18.75            | 19.52              | 19.60      | 19.62      | 0   | 20.00            |
|             |       | 1                | 25           | 18.15              | 18.23      | 18.42      | 0   | 18.75            | 19.41              | 19.44      | 19.60      | 0   | 20.00            |
|             |       | 1                | 49           | 18.32              | 18.37      | 18.45      | 0   | 18.75            | 19.54              | 19.57      | 19.67      | 0   | 20.00            |
|             |       | 25               | 0            | 18.20              | 18.25      | 18.34      | 0   | 18.75            | 19.46              | 19.45      | 19.55      | 0   | 20.00            |
|             |       | 25               | 12           | 18.14              | 18.24      | 18.35      | 0   | 18.75            | 19.37              | 19.44      | 19.57      | 0   | 20.00            |
|             |       | 25               | 25           | 18.21              | 18.29      | 18.37      | 0   | 18.75            | 19.45              | 19.48      | 19.57      | 0   | 20.00            |
|             |       | 50               | 0            | 18.14              | 18.26      | 18.35      | 0   | 18.75            | 19.37              | 19.48      | 19.50      | 0   | 20.00            |
|             | 16QAM | 1                | 0            | 18.54              | 18.48      | 18.49      | 0   | 18.75            | 19.77              | 19.98      | 19.99      | 0   | 20.00            |
|             |       | 1                | 25           | 18.42              | 18.62      | 18.52      | 0   | 18.75            | 19.68              | 19.80      | 19.93      | 0   | 20.00            |
|             |       | 1                | 49           | 18.57              | 18.48      | 18.50      | 0   | 18.75            | 19.85              | 19.86      | 19.86      | 0   | 20.00            |
|             |       | 25               | 0            | 18.28              | 18.31      | 18.40      | 0   | 18.75            | 19.51              | 19.51      | 19.55      | 0   | 20.00            |
|             |       | 25               | 12           | 18.15              | 18.30      | 18.41      | 0   | 18.75            | 19.43              | 19.49      | 19.53      | 0   | 20.00            |
|             |       | 25               | 25           | 18.26              | 18.35      | 18.43      | 0   | 18.75            | 19.51              | 19.54      | 19.54      | 0   | 20.00            |
|             |       | 50               | 0            | 18.19              | 18.34      | 18.41      | 0   | 18.75            | 19.43              | 19.52      | 19.55      | 0   | 20.00            |
|             | 64QAM | 1                | 0            | 18.37              | 18.63      | 18.42      | 0   | 18.75            | 19.54              | 19.85      | 19.67      | 0   | 20.00            |
|             |       | 1                | 25           | 18.40              | 18.59      | 18.52      | 0   | 18.75            | 19.61              | 19.82      | 19.68      | 0   | 20.00            |
|             |       | 1                | 49           | 18.45              | 18.42      | 18.52      | 0   | 18.75            | 19.73              | 19.63      | 19.63      | 0   | 20.00            |
|             |       | 25               | 0            | 18.25              | 18.37      | 18.24      | 0   | 18.75            | 18.98              | 19.13      | 18.98      | 0   | 20.00            |
|             |       | 25               | 12           | 18.28              | 18.35      | 18.26      | 0   | 18.75            | 19.03              | 19.12      | 18.99      | 0   | 20.00            |
|             |       | 25               | 25           | 18.32              | 18.33      | 18.18      | 0   | 18.75            | 19.11              | 19.03      | 18.90      | 0   | 20.00            |
|             |       | 50               | 0            | 18.25              | 18.29      | 18.23      | 0   | 18.75            | 19.05              | 19.03      | 18.92      | 0   | 20.00            |

**LTE Band 25 Measured Results (ANT4) (continued)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |            |            |     |                  | Power Mode B (dBm) |            |            |     |                  |
|-------------|-------|------------------|--------------|--------------------|------------|------------|-----|------------------|--------------------|------------|------------|-----|------------------|
|             |       |                  |              | 26065              | 26365      | 26665      | MPR | Tune-up<br>Limit | 26065              | 26365      | 26665      | MPR | Tune-up<br>Limit |
|             |       |                  |              | 1852.5 MHz         | 1882.5 MHz | 1912.5 MHz |     |                  | 1852.5 MHz         | 1882.5 MHz | 1912.5 MHz |     |                  |
| 5 MHz       | QPSK  | 1                | 0            | 18.26              | 18.27      | 18.36      | 0   | 18.75            | 19.48              | 19.48      | 19.59      | 0   | 20.00            |
|             |       | 1                | 12           | 18.16              | 18.24      | 18.37      | 0   | 18.75            | 19.40              | 19.46      | 19.59      | 0   | 20.00            |
|             |       | 1                | 24           | 18.11              | 18.27      | 18.27      | 0   | 18.75            | 19.32              | 19.49      | 19.47      | 0   | 20.00            |
|             |       | 12               | 0            | 18.12              | 18.15      | 18.28      | 0   | 18.75            | 19.35              | 19.38      | 19.52      | 0   | 20.00            |
|             |       | 12               | 7            | 18.09              | 18.12      | 18.27      | 0   | 18.75            | 19.33              | 19.39      | 19.53      | 0   | 20.00            |
|             |       | 12               | 13           | 18.00              | 18.14      | 18.27      | 0   | 18.75            | 19.26              | 19.45      | 19.51      | 0   | 20.00            |
|             | 16QAM | 25               | 0            | 18.08              | 18.15      | 18.26      | 0   | 18.75            | 19.31              | 19.44      | 19.51      | 0   | 20.00            |
|             |       | 1                | 0            | 18.68              | 18.57      | 18.52      | 0   | 18.75            | 19.86              | 19.79      | 19.91      | 0   | 20.00            |
|             |       | 1                | 12           | 18.52              | 18.61      | 18.52      | 0   | 18.75            | 19.78              | 19.80      | 20.00      | 0   | 20.00            |
|             |       | 1                | 24           | 18.50              | 18.63      | 18.46      | 0   | 18.75            | 19.76              | 19.79      | 19.93      | 0   | 20.00            |
|             |       | 12               | 0            | 18.11              | 18.17      | 18.28      | 0   | 18.75            | 19.34              | 19.38      | 19.55      | 0   | 20.00            |
|             |       | 12               | 7            | 18.09              | 18.13      | 18.28      | 0   | 18.75            | 19.33              | 19.40      | 19.51      | 0   | 20.00            |
|             | 64QAM | 12               | 13           | 18.00              | 18.17      | 18.26      | 0   | 18.75            | 19.25              | 19.48      | 19.52      | 0   | 20.00            |
|             |       | 25               | 0            | 18.09              | 18.15      | 18.26      | 0   | 18.75            | 19.33              | 19.44      | 19.49      | 0   | 20.00            |
|             |       | 1                | 0            | 18.41              | 18.60      | 18.53      | 0   | 18.75            | 19.63              | 19.79      | 19.83      | 0   | 20.00            |
|             |       | 1                | 12           | 18.34              | 18.47      | 18.46      | 0   | 18.75            | 19.53              | 19.66      | 19.76      | 0   | 20.00            |
|             |       | 1                | 24           | 18.43              | 18.49      | 18.53      | 0   | 18.75            | 19.64              | 19.72      | 19.71      | 0   | 20.00            |
|             |       | 12               | 0            | 18.02              | 18.20      | 18.05      | 0   | 18.75            | 18.76              | 18.91      | 18.80      | 0   | 20.00            |
| 3 MHz       | QPSK  | 12               | 7            | 17.99              | 18.17      | 17.95      | 0   | 18.75            | 18.76              | 18.90      | 18.76      | 0   | 20.00            |
|             |       | 12               | 13           | 18.08              | 18.11      | 17.97      | 0   | 18.75            | 18.84              | 18.83      | 18.78      | 0   | 20.00            |
|             |       | 25               | 0            | 17.98              | 18.14      | 17.97      | 0   | 18.75            | 18.73              | 18.85      | 18.78      | 0   | 20.00            |
|             | 16QAM | 1                | 0            | 18.22              | 18.03      | 18.27      | 0   | 18.75            | 19.44              | 19.30      | 19.51      | 0   | 20.00            |
|             |       | 1                | 8            | 18.19              | 18.13      | 18.30      | 0   | 18.75            | 19.43              | 19.41      | 19.46      | 0   | 20.00            |
|             |       | 1                | 14           | 18.13              | 18.08      | 18.15      | 0   | 18.75            | 19.37              | 19.36      | 19.31      | 0   | 20.00            |
|             |       | 8                | 0            | 18.05              | 17.97      | 18.08      | 0   | 18.75            | 19.28              | 19.23      | 19.29      | 0   | 20.00            |
|             |       | 8                | 4            | 18.02              | 17.96      | 18.06      | 0   | 18.75            | 19.26              | 19.22      | 19.27      | 0   | 20.00            |
|             |       | 8                | 7            | 18.03              | 18.01      | 18.06      | 0   | 18.75            | 19.25              | 19.31      | 19.27      | 0   | 20.00            |
|             | 64QAM | 15               | 0            | 18.04              | 17.99      | 18.11      | 0   | 18.75            | 19.25              | 19.31      | 19.32      | 0   | 20.00            |
|             |       | 1                | 0            | 18.48              | 18.37      | 18.67      | 0   | 18.75            | 19.69              | 19.62      | 19.75      | 0   | 20.00            |
|             |       | 1                | 8            | 18.44              | 18.46      | 18.65      | 0   | 18.75            | 19.68              | 19.75      | 19.77      | 0   | 20.00            |
|             |       | 1                | 14           | 18.37              | 18.43      | 18.52      | 0   | 18.75            | 19.61              | 19.67      | 19.59      | 0   | 20.00            |
|             |       | 8                | 0            | 18.04              | 17.94      | 18.12      | 0   | 18.75            | 19.27              | 19.18      | 19.31      | 0   | 20.00            |
|             |       | 8                | 4            | 18.02              | 17.95      | 18.11      | 0   | 18.75            | 19.27              | 19.20      | 19.31      | 0   | 20.00            |
| 1.4 MHz     | QPSK  | 8                | 7            | 18.03              | 18.00      | 18.09      | 0   | 18.75            | 19.28              | 19.29      | 19.29      | 0   | 20.00            |
|             |       | 15               | 0            | 18.00              | 17.96      | 18.10      | 0   | 18.75            | 19.27              | 19.25      | 19.28      | 0   | 20.00            |
|             |       | 1                | 0            | 18.13              | 18.41      | 18.36      | 0   | 18.75            | 19.39              | 19.64      | 19.49      | 0   | 20.00            |
|             |       | 1                | 8            | 18.27              | 18.39      | 18.39      | 0   | 18.75            | 19.46              | 19.59      | 19.57      | 0   | 20.00            |
|             |       | 1                | 14           | 18.12              | 18.32      | 18.31      | 0   | 18.75            | 19.32              | 19.66      | 19.44      | 0   | 20.00            |
|             |       | 8                | 0            | 17.83              | 18.13      | 17.99      | 0   | 18.75            | 18.55              | 18.88      | 18.70      | 0   | 20.00            |
|             | 16QAM | 8                | 4            | 17.81              | 18.10      | 17.99      | 0   | 18.75            | 18.55              | 18.87      | 18.67      | 0   | 20.00            |
|             |       | 8                | 7            | 17.78              | 18.02      | 17.99      | 0   | 18.75            | 18.56              | 18.83      | 18.71      | 0   | 20.00            |
|             |       | 15               | 0            | 17.79              | 17.97      | 17.89      | 0   | 18.75            | 18.54              | 18.75      | 18.61      | 0   | 20.00            |
|             |       | 1                | 0            | 18.21              | 18.14      | 18.28      | 0   | 18.75            | 19.60              | 19.72      | 19.66      | 0   | 20.00            |
|             |       | 1                | 3            | 18.13              | 18.11      | 18.26      | 0   | 18.75            | 19.51              | 19.90      | 19.88      | 0   | 20.00            |
|             |       | 1                | 5            | 18.17              | 18.16      | 18.18      | 0   | 18.75            | 19.46              | 19.90      | 19.91      | 0   | 20.00            |
|             | 64QAM | 3                | 0            | 18.12              | 17.99      | 18.08      | 0   | 18.75            | 19.38              | 19.88      | 19.83      | 0   | 20.00            |
|             |       | 3                | 1            | 18.05              | 17.96      | 18.08      | 0   | 18.75            | 19.29              | 19.89      | 19.85      | 0   | 20.00            |
|             |       | 3                | 3            | 18.03              | 18.01      | 18.07      | 0   | 18.75            | 19.29              | 19.85      | 19.84      | 0   | 20.00            |
|             |       | 6                | 0            | 17.99              | 18.00      | 17.97      | 0   | 18.75            | 19.22              | 19.87      | 19.87      | 0   | 20.00            |
|             |       | 1                | 0            | 18.44              | 18.53      | 18.51      | 0   | 18.75            | 19.82              | 19.91      | 19.88      | 0   | 20.00            |
|             |       | 1                | 3            | 18.33              | 18.48      | 18.57      | 0   | 18.75            | 19.76              | 19.91      | 19.88      | 0   | 20.00            |
| 1.4 MHz     | QPSK  | 1                | 5            | 18.38              | 18.53      | 18.44      | 0   | 18.75            | 19.70              | 19.92      | 19.90      | 0   | 20.00            |
|             |       | 3                | 0            | 18.19              | 18.13      | 18.30      | 0   | 18.75            | 19.55              | 19.92      | 19.94      | 0   | 20.00            |
|             |       | 3                | 1            | 18.16              | 18.11      | 18.26      | 0   | 18.75            | 19.46              | 19.91      | 19.91      | 0   | 20.00            |
|             |       | 3                | 3            | 18.15              | 18.15      | 18.28      | 0   | 18.75            | 19.48              | 19.92      | 19.99      | 0   | 20.00            |
|             |       | 6                | 0            | 18.03              | 17.99      | 18.19      | 0   | 18.75            | 19.35              | 19.85      | 19.95      | 0   | 20.00            |
|             |       | 1                | 0            | 18.52              | 18.53      | 18.38      | 0   | 18.75            | 19.64              | 19.77      | 19.52      | 0   | 20.00            |
|             | 16QAM | 1                | 3            | 18.43              | 18.52      | 18.34      | 0   | 18.75            | 19.60              | 19.68      | 19.54      | 0   | 20.00            |
|             |       | 1                | 5            | 18.48              | 18.39      | 18.33      | 0   | 18.75            | 19.70              | 19.67      | 19.43      | 0   | 20.00            |
|             |       | 3                | 0            | 18.15              | 18.22      | 18.13      | 0   | 18.75            | 19.31              | 19.39      | 19.29      | 0   | 20.00            |
|             |       | 3                | 1            | 18.12              | 18.22      | 18.13      | 0   | 18.75            | 19.31              | 19.39      | 19.29      | 0   | 20.00            |
|             |       | 3                | 3            | 18.08              | 18.17      | 18.14      | 0   | 18.75            | 19.33              | 19.30      | 19.29      | 0   | 20.00            |
|             |       | 6                | 0            | 17.92              | 18.10      | 18.00      | 0   | 18.75            | 18.64              | 18.75      | 18.71      | 0   | 20.00            |

**LTE Band 26 Measured Results (ANT1)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |           |           |     |                  | Power Mode B (dBm) |           |           |     |                  |
|-------------|-------|------------------|--------------|--------------------|-----------|-----------|-----|------------------|--------------------|-----------|-----------|-----|------------------|
|             |       |                  |              | 26740              | 26865     | 26990     | MPR | Tune-up<br>Limit | 26740              | 26865     | 26990     | MPR | Tune-up<br>Limit |
|             |       |                  |              | 819 MHz            | 831.5 MHz | 844 MHz   |     |                  | 819 MHz            | 831.5 MHz | 844 MHz   |     |                  |
| 10 MHz      | QPSK  | 1                | 0            | 25.07              | 25.05     | 25.03     | 0   | 25.70            | 25.07              | 25.05     | 25.03     | 0   | 25.70            |
|             |       | 1                | 25           | 25.20              | 25.20     | 25.20     | 0   | 25.70            | 25.20              | 25.20     | 25.20     | 0   | 25.70            |
|             |       | 1                | 49           | 25.15              | 25.10     | 24.99     | 0   | 25.70            | 25.15              | 25.10     | 24.99     | 0   | 25.70            |
|             |       | 25               | 0            | 24.12              | 24.02     | 23.93     | 1   | 24.70            | 24.12              | 24.02     | 23.93     | 1   | 24.70            |
|             |       | 25               | 12           | 24.20              | 24.20     | 24.20     | 1   | 24.70            | 24.20              | 24.20     | 24.20     | 1   | 24.70            |
|             |       | 25               | 25           | 24.08              | 24.08     | 23.86     | 1   | 24.70            | 24.08              | 24.08     | 23.86     | 1   | 24.70            |
|             |       | 50               | 0            | 24.20              | 24.20     | 24.20     | 1   | 24.70            | 24.20              | 24.20     | 24.20     | 1   | 24.70            |
|             | 16QAM | 1                | 0            | 24.50              | 24.44     | 24.35     | 1   | 24.70            | 24.50              | 24.44     | 24.35     | 1   | 24.70            |
|             |       | 1                | 25           | 24.32              | 24.50     | 24.31     | 1   | 24.70            | 24.32              | 24.50     | 24.31     | 1   | 24.70            |
|             |       | 1                | 49           | 24.38              | 24.49     | 24.31     | 1   | 24.70            | 24.38              | 24.49     | 24.31     | 1   | 24.70            |
|             |       | 25               | 0            | 23.08              | 23.08     | 23.32     | 2   | 23.70            | 23.08              | 23.08     | 23.32     | 2   | 23.70            |
|             |       | 25               | 12           | 23.03              | 23.12     | 23.36     | 2   | 23.70            | 23.03              | 23.12     | 23.36     | 2   | 23.70            |
|             |       | 25               | 25           | 23.06              | 23.11     | 23.32     | 2   | 23.70            | 23.06              | 23.11     | 23.32     | 2   | 23.70            |
|             |       | 50               | 0            | 23.03              | 23.12     | 23.36     | 2   | 23.70            | 23.03              | 23.12     | 23.36     | 2   | 23.70            |
|             | 64QAM | 1                | 0            | 23.68              | 23.64     | 23.63     | 2   | 23.70            | 23.68              | 23.64     | 23.63     | 2   | 23.70            |
|             |       | 1                | 25           | 23.67              | 23.60     | 23.63     | 2   | 23.70            | 23.67              | 23.60     | 23.63     | 2   | 23.70            |
|             |       | 1                | 49           | 23.61              | 23.57     | 23.63     | 2   | 23.70            | 23.61              | 23.57     | 23.63     | 2   | 23.70            |
|             |       | 25               | 0            | 22.57              | 22.51     | 22.43     | 3   | 22.70            | 22.57              | 22.51     | 22.43     | 3   | 22.70            |
|             |       | 25               | 12           | 22.51              | 22.57     | 22.37     | 3   | 22.70            | 22.51              | 22.57     | 22.37     | 3   | 22.70            |
|             |       | 25               | 25           | 22.57              | 22.57     | 22.35     | 3   | 22.70            | 22.57              | 22.57     | 22.35     | 3   | 22.70            |
|             |       | 50               | 0            | 22.53              | 22.53     | 22.39     | 3   | 22.70            | 22.53              | 22.53     | 22.39     | 3   | 22.70            |
| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |           |           |     |                  | Power Mode B (dBm) |           |           |     |                  |
|             |       |                  |              | 26715              | 26865     | 27015     | MPR | Tune-up<br>Limit | 26715              | 26865     | 27015     | MPR | Tune-up<br>Limit |
|             |       |                  |              | 816.5 MHz          | 831.5 MHz | 846.5 MHz |     |                  | 816.5 MHz          | 831.5 MHz | 846.5 MHz |     |                  |
| 5 MHz       | QPSK  | 1                | 0            | 25.19              | 25.06     | 25.32     | 0   | 25.70            | 25.19              | 25.06     | 25.32     | 0   | 25.70            |
|             |       | 1                | 12           | 25.00              | 25.04     | 25.27     | 0   | 25.70            | 25.00              | 25.04     | 25.27     | 0   | 25.70            |
|             |       | 1                | 24           | 24.99              | 25.08     | 25.01     | 0   | 25.70            | 24.99              | 25.08     | 25.01     | 0   | 25.70            |
|             |       | 12               | 0            | 24.44              | 24.43     | 24.33     | 1   | 24.70            | 24.44              | 24.43     | 24.33     | 1   | 24.70            |
|             |       | 12               | 7            | 24.41              | 24.42     | 24.30     | 1   | 24.70            | 24.41              | 24.42     | 24.30     | 1   | 24.70            |
|             |       | 12               | 13           | 24.43              | 24.41     | 24.29     | 1   | 24.70            | 24.43              | 24.41     | 24.29     | 1   | 24.70            |
|             | 16QAM | 25               | 0            | 24.45              | 24.43     | 24.30     | 1   | 24.70            | 24.45              | 24.43     | 24.30     | 1   | 24.70            |
|             |       | 1                | 0            | 24.52              | 24.31     | 24.40     | 1   | 24.70            | 24.52              | 24.31     | 24.40     | 1   | 24.70            |
|             |       | 1                | 12           | 24.36              | 24.33     | 24.34     | 1   | 24.70            | 24.36              | 24.33     | 24.34     | 1   | 24.70            |
|             |       | 1                | 24           | 24.30              | 24.34     | 24.43     | 1   | 24.70            | 24.30              | 24.34     | 24.43     | 1   | 24.70            |
|             |       | 12               | 0            | 23.37              | 23.34     | 23.23     | 2   | 23.70            | 23.37              | 23.34     | 23.23     | 2   | 23.70            |
|             |       | 12               | 7            | 23.34              | 23.37     | 23.16     | 2   | 23.70            | 23.34              | 23.37     | 23.16     | 2   | 23.70            |
|             | 64QAM | 12               | 13           | 23.32              | 23.38     | 23.18     | 2   | 23.70            | 23.32              | 23.38     | 23.18     | 2   | 23.70            |
|             |       | 25               | 0            | 23.35              | 23.35     | 23.16     | 2   | 23.70            | 23.35              | 23.35     | 23.16     | 2   | 23.70            |
|             |       | 1                | 0            | 23.66              | 23.66     | 23.65     | 2   | 23.70            | 23.66              | 23.66     | 23.65     | 2   | 23.70            |
|             |       | 1                | 12           | 23.60              | 23.64     | 23.57     | 2   | 23.70            | 23.60              | 23.64     | 23.57     | 2   | 23.70            |
|             |       | 1                | 24           | 23.70              | 23.69     | 23.69     | 2   | 23.70            | 23.70              | 23.69     | 23.69     | 2   | 23.70            |
|             |       | 12               | 0            | 22.45              | 22.40     | 22.27     | 3   | 22.70            | 22.45              | 22.40     | 22.27     | 3   | 22.70            |
| 3 MHz       | QPSK  | 12               | 7            | 22.41              | 22.38     | 22.21     | 3   | 22.70            | 22.41              | 22.38     | 22.21     | 3   | 22.70            |
|             |       | 12               | 13           | 22.39              | 22.38     | 22.25     | 3   | 22.70            | 22.39              | 22.38     | 22.25     | 3   | 22.70            |
|             |       | 25               | 0            | 22.38              | 22.43     | 22.22     | 3   | 22.70            | 22.38              | 22.43     | 22.22     | 3   | 22.70            |
|             | 16QAM | 1                | 0            | 25.20              | 25.03     | 25.38     | 0   | 25.70            | 25.20              | 25.03     | 25.38     | 0   | 25.70            |
|             |       | 1                | 8            | 25.13              | 25.06     | 25.46     | 0   | 25.70            | 25.13              | 25.06     | 25.46     | 0   | 25.70            |
|             |       | 1                | 14           | 25.06              | 25.03     | 25.46     | 0   | 25.70            | 25.06              | 25.03     | 25.46     | 0   | 25.70            |
|             |       | 8                | 0            | 24.00              | 24.39     | 24.25     | 1   | 24.70            | 24.00              | 24.39     | 24.25     | 1   | 24.70            |
|             |       | 8                | 4            | 24.40              | 24.36     | 24.26     | 1   | 24.70            | 24.40              | 24.36     | 24.26     | 1   | 24.70            |
|             |       | 8                | 7            | 24.41              | 24.37     | 24.24     | 1   | 24.70            | 24.41              | 24.37     | 24.24     | 1   | 24.70            |
|             | 64QAM | 15               | 0            | 24.42              | 24.41     | 24.27     | 1   | 24.70            | 24.42              | 24.41     | 24.27     | 1   | 24.70            |
|             |       | 1                | 0            | 24.52              | 24.29     | 24.23     | 1   | 24.70            | 24.52              | 24.29     | 24.23     | 1   | 24.70            |
|             |       | 1                | 8            | 24.37              | 24.33     | 24.27     | 1   | 24.70            | 24.37              | 24.33     | 24.27     | 1   | 24.70            |
|             |       | 1                | 14           | 24.29              | 24.30     | 24.28     | 1   | 24.70            | 24.29              | 24.30     | 24.28     | 1   | 24.70            |
|             |       | 8                | 0            | 23.47              | 23.38     | 23.18     | 2   | 23.70            | 23.47              | 23.38     | 23.18     | 2   | 23.70            |
|             |       | 8                | 4            | 23.45              | 23.37     | 23.20     | 2   | 23.70            | 23.45              | 23.37     | 23.20     | 2   | 23.70            |
|             | 16QAM | 8                | 7            | 23.49              | 23.41     | 23.19     | 2   | 23.70            | 23.49              | 23.41     | 23.19     | 2   | 23.70            |
|             |       | 15               | 0            | 23.44              | 23.40     | 23.24     | 2   | 23.70            | 23.44              | 23.40     | 23.24     | 2   | 23.70            |
|             |       | 1                | 0            | 23.57              | 23.57     | 23.48     | 2   | 23.70            | 23.57              | 23.57     | 23.48     | 2   | 23.70            |
|             |       | 1                | 8            | 23.68              | 23.62     | 23.48     | 2   | 23.70            | 23.68              | 23.62     | 23.48     | 2   | 23.70            |
|             |       | 1                | 14           | 23.55              | 23.64     | 23.63     | 2   | 23.70            | 23.55              | 23.64     | 23.63     | 2   | 23.70            |
|             |       | 8                | 0            | 22.38              | 22.36     | 22.14     | 3   | 22.70            | 22.38              | 22.36     | 22.14     | 3   | 22.70            |
|             | 64QAM | 8                | 4            | 22.28              | 22.34     | 22.16     | 3   | 22.70            | 22.28              | 22.34     | 22.16     | 3   | 22.70            |
|             |       | 8                | 7            | 22.29              | 22.34     | 22.16     | 3   | 22.70            | 22.29              | 22.34     | 22.16     | 3   | 22.70            |
|             |       | 15               | 0            | 22.30              | 22.31     | 22.13     | 3   | 22.70            | 22.30              | 22.31     | 22.13     | 3   | 22.70            |
|             |       |                  |              |                    |           |           |     |                  |                    |           |           |     |                  |

**LTE Band 26 Measured Results (ANT1) (continued)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |           |           |     |                  | Power Mode B (dBm) |           |           |     |                  |
|-------------|-------|------------------|--------------|--------------------|-----------|-----------|-----|------------------|--------------------|-----------|-----------|-----|------------------|
|             |       |                  |              | 26697              | 26865     | 27033     | MPR | Tune-up<br>Limit | 26697              | 26865     | 27033     | MPR | Tune-up<br>Limit |
|             |       |                  |              | 814.7 MHz          | 831.5 MHz | 848.3 MHz |     |                  | 814.7 MHz          | 831.5 MHz | 848.3 MHz |     |                  |
| 1.4 MHz     | QPSK  | 1                | 0            | 25.27              | 25.11     | 25.42     | 0   | 25.70            | 25.27              | 25.11     | 25.42     | 0   | 25.70            |
|             |       | 1                | 3            | 25.20              | 25.06     | 25.45     | 0   | 25.70            | 25.20              | 25.06     | 25.45     | 0   | 25.70            |
|             |       | 1                | 5            | 25.11              | 25.11     | 25.02     | 0   | 25.70            | 25.11              | 25.11     | 25.02     | 0   | 25.70            |
|             |       | 3                | 0            | 25.49              | 25.00     | 24.80     | 0   | 25.70            | 25.49              | 25.00     | 24.80     | 0   | 25.70            |
|             |       | 3                | 1            | 25.48              | 25.49     | 25.28     | 0   | 25.70            | 25.48              | 25.49     | 25.28     | 0   | 25.70            |
|             |       | 3                | 3            | 25.48              | 25.48     | 25.28     | 0   | 25.70            | 25.48              | 25.48     | 25.28     | 0   | 25.70            |
|             | 16QAM | 6                | 0            | 24.41              | 24.39     | 24.29     | 1   | 24.70            | 24.41              | 24.39     | 24.29     | 1   | 24.70            |
|             |       | 1                | 0            | 24.49              | 24.30     | 24.16     | 1   | 24.70            | 24.49              | 24.30     | 24.16     | 1   | 24.70            |
|             |       | 1                | 3            | 24.46              | 24.27     | 24.21     | 1   | 24.70            | 24.46              | 24.27     | 24.21     | 1   | 24.70            |
|             |       | 1                | 5            | 24.33              | 24.26     | 24.27     | 1   | 24.70            | 24.33              | 24.26     | 24.27     | 1   | 24.70            |
|             |       | 3                | 0            | 24.14              | 24.00     | 23.92     | 1   | 24.70            | 24.14              | 24.00     | 23.92     | 1   | 24.70            |
|             |       | 3                | 1            | 24.14              | 24.49     | 24.41     | 1   | 24.70            | 24.14              | 24.49     | 24.41     | 1   | 24.70            |
|             | 64QAM | 3                | 3            | 24.15              | 24.48     | 24.38     | 1   | 24.70            | 24.15              | 24.48     | 24.38     | 1   | 24.70            |
|             |       | 6                | 0            | 23.50              | 23.39     | 23.17     | 2   | 23.70            | 23.50              | 23.39     | 23.17     | 2   | 23.70            |
|             |       | 1                | 0            | 23.67              | 23.61     | 23.56     | 2   | 23.70            | 23.67              | 23.61     | 23.56     | 2   | 23.70            |
|             |       | 1                | 3            | 23.56              | 23.67     | 23.62     | 2   | 23.70            | 23.56              | 23.67     | 23.62     | 2   | 23.70            |
|             |       | 1                | 5            | 23.58              | 23.64     | 23.64     | 2   | 23.70            | 23.58              | 23.64     | 23.64     | 2   | 23.70            |
|             |       | 3                | 0            | 23.62              | 23.58     | 23.28     | 2   | 23.70            | 23.62              | 23.58     | 23.28     | 2   | 23.70            |
|             | 64QAM | 3                | 1            | 23.53              | 23.60     | 23.27     | 2   | 23.70            | 23.53              | 23.60     | 23.27     | 2   | 23.70            |
|             |       | 3                | 3            | 23.55              | 23.57     | 23.17     | 2   | 23.70            | 23.55              | 23.57     | 23.17     | 2   | 23.70            |
|             |       | 6                | 0            | 22.43              | 22.43     | 22.25     | 3   | 22.70            | 22.43              | 22.43     | 22.25     | 3   | 22.70            |
|             |       |                  |              |                    |           |           |     |                  |                    |           |           |     |                  |

**LTE Band 26 Measured Results (ANT2)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |           |         |     |                  | Power Mode B (dBm) |           |         |     |                  |
|-------------|-------|------------------|--------------|--------------------|-----------|---------|-----|------------------|--------------------|-----------|---------|-----|------------------|
|             |       |                  |              | 26740              | 26865     | 26990   | MPR | Tune-up<br>Limit | 26740              | 26865     | 26990   | MPR | Tune-up<br>Limit |
|             |       |                  |              | 819 MHz            | 831.5 MHz | 844 MHz |     |                  | 819 MHz            | 831.5 MHz | 844 MHz |     |                  |
| 10 MHz      | QPSK  | 1                | 0            | 24.39              | 24.42     | 24.36   | 0   | 24.50            | 24.39              | 24.42     | 24.36   | 0   | 24.50            |
|             |       | 1                | 25           | 24.42              | 24.42     | 24.42   | 0   | 24.50            | 24.42              | 24.42     | 24.42   | 0   | 24.50            |
|             |       | 1                | 49           | 24.33              | 24.36     | 24.35   | 0   | 24.50            | 24.33              | 24.36     | 24.35   | 0   | 24.50            |
|             |       | 25               | 0            | 23.30              | 23.41     | 23.35   | 1   | 23.50            | 23.30              | 23.41     | 23.35   | 1   | 23.50            |
|             |       | 25               | 12           | 23.35              | 23.41     | 23.45   | 1   | 23.50            | 23.35              | 23.41     | 23.45   | 1   | 23.50            |
|             |       | 25               | 25           | 23.27              | 23.29     | 23.32   | 1   | 23.50            | 23.27              | 23.29     | 23.32   | 1   | 23.50            |
|             | 16QAM | 50               | 0            | 23.38              | 23.41     | 23.40   | 1   | 23.50            | 23.38              | 23.41     | 23.40   | 1   | 23.50            |
|             |       | 1                | 0            | 23.44              | 23.49     | 23.40   | 1   | 23.50            | 23.44              | 23.49     | 23.40   | 1   | 23.50            |
|             |       | 1                | 25           | 23.43              | 23.46     | 23.40   | 1   | 23.50            | 23.43              | 23.46     | 23.40   | 1   | 23.50            |
|             |       | 1                | 49           | 23.43              | 23.46     | 23.43   | 1   | 23.50            | 23.43              | 23.46     | 23.43   | 1   | 23.50            |
|             |       | 25               | 0            | 22.36              | 22.44     | 22.41   | 2   | 22.50            | 22.36              | 22.44     | 22.41   | 2   | 22.50            |
|             |       | 25               | 12           | 22.43              | 22.41     | 22.48   | 2   | 22.50            | 22.43              | 22.41     | 22.48   | 2   | 22.50            |
|             | 64QAM | 25               | 25           | 22.34              | 22.35     | 22.35   | 2   | 22.50            | 22.34              | 22.35     | 22.35   | 2   | 22.50            |
|             |       | 50               | 0            | 22.43              | 22.41     | 22.48   | 2   | 22.50            | 22.43              | 22.41     | 22.48   | 2   | 22.50            |
|             |       | 1                | 0            | 22.15              | 22.11     | 22.17   | 2   | 22.50            | 22.15              | 22.11     | 22.17   | 2   | 22.50            |
|             |       | 1                | 25           | 22.16              | 22.04     | 22.14   | 2   | 22.50            | 22.16              | 22.04     | 22.14   | 2   | 22.50            |
|             |       | 1                | 49           | 22.11              | 22.08     | 22.29   | 2   | 22.50            | 22.11              | 22.08     | 22.29   | 2   | 22.50            |
|             |       | 25               | 0            | 20.92              | 20.88     | 20.95   | 3   | 21.50            | 20.92              | 20.88     | 20.95   | 3   | 21.50            |
| 5 MHz       | QPSK  | 25               | 12           | 20.92              | 20.87     | 20.94   | 3   | 21.50            | 20.92              | 20.87     | 20.94   | 3   | 21.50            |
|             |       | 25               | 25           | 20.86              | 20.84     | 20.90   | 3   | 21.50            | 20.86              | 20.84     | 20.90   | 3   | 21.50            |
|             |       | 50               | 0            | 20.92              | 20.89     | 20.94   | 3   | 21.50            | 20.92              | 20.89     | 20.94   | 3   | 21.50            |
|             | 16QAM | 1                | 0            | 24.44              | 24.42     | 24.46   | 0   | 24.50            | 24.44              | 24.42     | 24.46   | 0   | 24.50            |
|             |       | 1                | 12           | 24.31              | 24.38     | 24.34   | 0   | 24.50            | 24.31              | 24.38     | 24.34   | 0   | 24.50            |
|             |       | 1                | 24           | 24.41              | 24.36     | 24.39   | 0   | 24.50            | 24.41              | 24.36     | 24.39   | 0   | 24.50            |
|             |       | 12               | 0            | 23.23              | 23.33     | 23.32   | 1   | 23.50            | 23.23              | 23.33     | 23.32   | 1   | 23.50            |
|             |       | 12               | 7            | 23.20              | 23.30     | 23.21   | 1   | 23.50            | 23.20              | 23.30     | 23.21   | 1   | 23.50            |
|             |       | 12               | 13           | 23.27              | 23.29     | 23.26   | 1   | 23.50            | 23.27              | 23.29     | 23.26   | 1   | 23.50            |
|             | 64QAM | 25               | 0            | 23.21              | 23.31     | 23.25   | 1   | 23.50            | 23.21              | 23.31     | 23.25   | 1   | 23.50            |
|             |       | 1                | 0            | 23.48              | 23.44     | 23.49   | 1   | 23.50            | 23.48              | 23.44     | 23.49   | 1   | 23.50            |
|             |       | 1                | 12           | 23.47              | 23.47     | 23.47   | 1   | 23.50            | 23.47              | 23.47     | 23.47   | 1   | 23.50            |
|             |       | 1                | 24           | 23.46              | 23.43     | 23.42   | 1   | 23.50            | 23.46              | 23.43     | 23.42   | 1   | 23.50            |
|             |       | 12               | 0            | 22.21              | 22.30     | 22.34   | 2   | 22.50            | 22.21              | 22.30     | 22.34   | 2   | 22.50            |
|             |       | 12               | 7            | 22.20              | 22.28     | 22.25   | 2   | 22.50            | 22.20              | 22.28     | 22.25   | 2   | 22.50            |
| 3 MHz       | QPSK  | 12               | 13           | 22.25              | 22.27     | 22.26   | 2   | 22.50            | 22.25              | 22.27     | 22.26   | 2   | 22.50            |
|             |       | 25               | 0            | 22.20              | 22.25     | 22.21   | 2   | 22.50            | 22.20              | 22.25     | 22.21   | 2   | 22.50            |
|             | 16QAM | 1                | 0            | 22.29              | 22.05     | 22.27   | 2   | 22.50            | 22.29              | 22.05     | 22.27   | 2   | 22.50            |
|             |       | 1                | 12           | 22.21              | 22.08     | 22.16   | 2   | 22.50            | 22.21              | 22.08     | 22.16   | 2   | 22.50            |
|             |       | 1                | 24           | 22.23              | 22.06     | 22.20   | 2   | 22.50            | 22.23              | 22.06     | 22.20   | 2   | 22.50            |
|             |       | 12               | 0            | 20.71              | 20.84     | 20.73   | 3   | 21.50            | 20.71              | 20.84     | 20.73   | 3   | 21.50            |
|             | 64QAM | 12               | 7            | 20.76              | 20.80     | 20.78   | 3   | 21.50            | 20.76              | 20.80     | 20.78   | 3   | 21.50            |
|             |       | 12               | 13           | 20.79              | 20.78     | 20.78   | 3   | 21.50            | 20.79              | 20.78     | 20.78   | 3   | 21.50            |
|             |       | 25               | 0            | 20.78              | 20.75     | 20.82   | 3   | 21.50            | 20.78              | 20.75     | 20.82   | 3   | 21.50            |
|             | QPSK  | 1                | 0            | 24.43              | 24.34     | 24.30   | 0   | 24.50            | 24.43              | 24.34     | 24.30   | 0   | 24.50            |
|             |       | 1                | 8            | 24.38              | 24.37     | 24.40   | 0   | 24.50            | 24.38              | 24.37     | 24.40   | 0   | 24.50            |
|             |       | 1                | 14           | 24.33              | 24.32     | 24.38   | 0   | 24.50            | 24.33              | 24.32     | 24.38   | 0   | 24.50            |
|             |       | 8                | 0            | 23.26              | 23.22     | 23.15   | 1   | 23.50            | 23.26              | 23.22     | 23.15   | 1   | 23.50            |
|             |       | 8                | 4            | 23.16              | 23.19     | 23.20   | 1   | 23.50            | 23.16              | 23.19     | 23.20   | 1   | 23.50            |
|             |       | 8                | 7            | 23.16              | 23.19     | 23.19   | 1   | 23.50            | 23.16              | 23.19     | 23.19   | 1   | 23.50            |
|             | 16QAM | 15               | 0            | 23.17              | 23.23     | 23.23   | 1   | 23.50            | 23.17              | 23.23     | 23.23   | 1   | 23.50            |
|             |       | 1                | 0            | 23.44              | 23.45     | 23.48   | 1   | 23.50            | 23.44              | 23.45     | 23.48   | 1   | 23.50            |
|             |       | 1                | 8            | 23.49              | 23.47     | 23.40   | 1   | 23.50            | 23.49              | 23.47     | 23.40   | 1   | 23.50            |
|             |       | 1                | 14           | 23.48              | 23.45     | 23.40   | 1   | 23.50            | 23.48              | 23.45     | 23.40   | 1   | 23.50            |
|             |       | 8                | 0            | 22.26              | 22.20     | 22.10   | 2   | 22.50            | 22.26              | 22.20     | 22.10   | 2   | 22.50            |
|             |       | 8                | 4            | 22.16              | 22.17     | 22.14   | 2   | 22.50            | 22.16              | 22.17     | 22.14   | 2   | 22.50            |
|             | 64QAM | 8                | 7            | 22.14              | 22.17     | 22.12   | 2   | 22.50            | 22.14              | 22.17     | 22.12   | 2   | 22.50            |
|             |       | 15               | 0            | 22.14              | 22.14     | 22.16   | 2   | 22.50            | 22.14              | 22.14     | 22.16   | 2   | 22.50            |
|             |       | 1                | 0            | 22.07              | 21.97     | 22.06   | 2   | 22.50            | 22.07              | 21.97     | 22.06   | 2   | 22.50            |
|             |       | 1                | 8            | 21.98              | 21.95     | 22.15   | 2   | 22.50            | 21.98              | 21.95     | 22.15   | 2   | 22.50            |
|             |       | 1                | 14           | 22.02              | 21.89     | 22.16   | 2   | 22.50            | 22.02              | 21.89     | 22.16   | 2   | 22.50            |
|             |       | 8                | 0            | 20.72              | 20.68     | 20.74   | 3   | 21.50            | 20.72              | 20.68     | 20.74   | 3   | 21.50            |
|             | 64QAM | 8                | 4            | 20.63              | 20.67     | 20.71   | 3   | 21.50            | 20.63              | 20.67     | 20.71   | 3   | 21.50            |
|             |       | 8                | 7            | 20.61              | 20.69     | 20.72   | 3   | 21.50            | 20.61              | 20.69     | 20.72   | 3   | 21.50            |
|             |       | 15               | 0            | 20.59              | 20.66     | 20.70   | 3   | 21.50            | 20.59              | 20.66     | 20.70   | 3   | 21.50            |
|             |       | 15               | 0            | 20.59              | 20.66     | 20.70   | 3   | 21.50            | 20.59              | 20.66     | 20.70   | 3   | 21.50            |

**LTE Band 26 Measured Results (ANT2) (continued)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |           |           |     |                  | Power Mode B (dBm) |           |           |     |                  |
|-------------|-------|------------------|--------------|--------------------|-----------|-----------|-----|------------------|--------------------|-----------|-----------|-----|------------------|
|             |       |                  |              | 26697              | 26865     | 27033     | MPR | Tune-up<br>Limit | 26697              | 26865     | 27033     | MPR | Tune-up<br>Limit |
|             |       |                  |              | 814.7 MHz          | 831.5 MHz | 848.3 MHz |     |                  | 814.7 MHz          | 831.5 MHz | 848.3 MHz |     |                  |
| 1.4 MHz     | QPSK  | 1                | 0            | 24.47              | 24.42     | 24.41     | 0   | 24.50            | 24.47              | 24.42     | 24.41     | 0   | 24.50            |
|             |       | 1                | 3            | 24.47              | 24.38     | 24.37     | 0   | 24.50            | 24.47              | 24.38     | 24.37     | 0   | 24.50            |
|             |       | 1                | 5            | 24.41              | 24.41     | 24.40     | 0   | 24.50            | 24.41              | 24.41     | 24.40     | 0   | 24.50            |
|             |       | 3                | 0            | 24.29              | 24.22     | 24.27     | 0   | 24.50            | 24.29              | 24.22     | 24.27     | 0   | 24.50            |
|             |       | 3                | 1            | 24.28              | 24.19     | 24.27     | 0   | 24.50            | 24.28              | 24.19     | 24.27     | 0   | 24.50            |
|             |       | 3                | 3            | 24.29              | 24.18     | 24.26     | 0   | 24.50            | 24.29              | 24.18     | 24.26     | 0   | 24.50            |
|             | 16QAM | 6                | 0            | 23.30              | 23.18     | 23.18     | 1   | 23.50            | 23.30              | 23.18     | 23.18     | 1   | 23.50            |
|             |       | 1                | 0            | 23.41              | 23.31     | 23.36     | 1   | 23.50            | 23.41              | 23.31     | 23.36     | 1   | 23.50            |
|             |       | 1                | 3            | 23.39              | 23.31     | 23.39     | 1   | 23.50            | 23.39              | 23.31     | 23.39     | 1   | 23.50            |
|             |       | 1                | 5            | 23.31              | 23.45     | 23.41     | 1   | 23.50            | 23.31              | 23.45     | 23.41     | 1   | 23.50            |
|             |       | 3                | 0            | 23.44              | 23.40     | 23.31     | 1   | 23.50            | 23.44              | 23.40     | 23.31     | 1   | 23.50            |
|             |       | 3                | 1            | 23.41              | 23.39     | 23.29     | 1   | 23.50            | 23.41              | 23.39     | 23.29     | 1   | 23.50            |
|             | 64QAM | 3                | 3            | 23.40              | 23.35     | 23.27     | 1   | 23.50            | 23.40              | 23.35     | 23.27     | 1   | 23.50            |
|             |       | 6                | 0            | 22.25              | 22.27     | 22.24     | 2   | 22.50            | 22.25              | 22.27     | 22.24     | 2   | 22.50            |
|             |       | 1                | 0            | 22.12              | 22.20     | 22.15     | 2   | 22.50            | 22.12              | 22.20     | 22.15     | 2   | 22.50            |
|             |       | 1                | 3            | 22.14              | 22.13     | 22.14     | 2   | 22.50            | 22.14              | 22.13     | 22.14     | 2   | 22.50            |
|             |       | 1                | 5            | 21.97              | 22.19     | 22.14     | 2   | 22.50            | 21.97              | 22.19     | 22.14     | 2   | 22.50            |
|             |       | 3                | 0            | 21.86              | 21.87     | 21.85     | 2   | 22.50            | 21.86              | 21.87     | 21.85     | 2   | 22.50            |
|             | 64QAM | 3                | 1            | 21.88              | 21.86     | 21.87     | 2   | 22.50            | 21.88              | 21.86     | 21.87     | 2   | 22.50            |
|             |       | 3                | 3            | 21.85              | 21.85     | 21.86     | 2   | 22.50            | 21.85              | 21.85     | 21.86     | 2   | 22.50            |
|             |       | 6                | 0            | 20.75              | 20.70     | 20.81     | 3   | 21.50            | 20.75              | 20.70     | 20.81     | 3   | 21.50            |
|             |       |                  |              |                    |           |           |     |                  |                    |           |           |     |                  |

**LTE Band 30 Measured Results (ANT1)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |          |     |                  | Power Mode B (dBm) |          |      |                  |
|-------------|-------|------------------|--------------|--------------------|----------|-----|------------------|--------------------|----------|------|------------------|
|             |       |                  |              | 27710              | 2310 MHz | MPR | Tune-up<br>Limit | 27710              | 2310 MHz | MPR  | Tune-up<br>Limit |
| 10 MHz      | QPSK  | 1                | 0            | 25.18              |          | 0   | 25.70            | 21.87              |          | 0    | 22.00            |
|             |       | 1                | 25           | 25.70              |          | 0   | 25.70            | 21.95              |          | 0    | 22.00            |
|             |       | 1                | 49           | 25.27              |          | 0   | 25.70            | 21.91              |          | 0    | 22.00            |
|             |       | 25               | 0            | 24.18              |          | 1   | 24.70            | 21.82              |          | 0    | 22.00            |
|             |       | 25               | 12           | 24.70              |          | 1   | 24.70            | 21.90              |          | 0    | 22.00            |
|             |       | 25               | 25           | 24.24              |          | 1   | 24.70            | 21.88              |          | 0    | 22.00            |
|             |       | 50               | 0            | 24.16              |          | 1   | 24.70            | 21.86              |          | 0    | 22.00            |
|             | 16QAM | 1                | 0            | 24.44              |          | 1   | 24.70            | 21.81              |          | 0    | 22.00            |
|             |       | 1                | 25           | 24.42              |          | 1   | 24.70            | 21.95              |          | 0    | 22.00            |
|             |       | 1                | 49           | 24.56              |          | 1   | 24.70            | 21.84              |          | 0    | 22.00            |
|             |       | 25               | 0            | 23.22              |          | 2   | 23.70            | 21.89              |          | 0    | 22.00            |
|             |       | 25               | 12           | 23.19              |          | 2   | 23.70            | 21.86              |          | 0    | 22.00            |
|             | 64QAM | 25               | 25           | 23.27              |          | 2   | 23.70            | 21.92              |          | 0    | 22.00            |
|             |       | 50               | 0            | 23.20              |          | 2   | 23.70            | 21.88              |          | 0    | 22.00            |
|             |       | 1                | 0            | 23.46              |          | 2   | 23.70            | 21.89              |          | 0    | 22.00            |
|             |       | 1                | 25           | 23.46              |          | 2   | 23.70            | 21.86              |          | 0    | 22.00            |
|             |       | 1                | 49           | 23.56              |          | 2   | 23.70            | 21.93              |          | 0    | 22.00            |
|             |       | 25               | 0            | 22.29              |          | 3   | 22.70            | 21.79              |          | 0    | 22.00            |
|             |       | 25               | 12           | 22.26              |          | 3   | 22.70            | 21.77              |          | 0    | 22.00            |
|             |       | 25               | 25           | 22.32              |          | 3   | 22.70            | 21.87              |          | 0    | 22.00            |
|             |       | 50               | 0            | 22.29              |          | 3   | 22.70            | 21.80              |          | 0    | 22.00            |
| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |          |     |                  | Power Mode B (dBm) |          |      |                  |
|             |       |                  |              | 27710              | 2310 MHz | MPR | Tune-up<br>Limit | 27710              | 2310 MHz | MPR  | Tune-up<br>Limit |
| 5 MHz       | QPSK  | 1                | 0            | 25.23              |          | 0   | 25.70            | 21.91              |          | 0.00 | 22.00            |
|             |       | 1                | 12           | 25.19              |          | 0   | 25.70            | 21.93              |          | 0.00 | 22.00            |
|             |       | 1                | 24           | 25.28              |          | 0   | 25.70            | 21.95              |          | 0.00 | 22.00            |
|             |       | 12               | 0            | 24.15              |          | 1   | 24.70            | 21.81              |          | 0.00 | 22.00            |
|             |       | 12               | 7            | 24.08              |          | 1   | 24.70            | 21.78              |          | 0.00 | 22.00            |
|             |       | 12               | 13           | 24.08              |          | 1   | 24.70            | 21.90              |          | 0.00 | 22.00            |
|             |       | 25               | 0            | 24.11              |          | 1   | 24.70            | 21.88              |          | 0.00 | 22.00            |
|             | 16QAM | 1                | 0            | 24.54              |          | 1   | 24.70            | 21.99              |          | 0.00 | 22.00            |
|             |       | 1                | 12           | 24.46              |          | 1   | 24.70            | 21.91              |          | 0.00 | 22.00            |
|             |       | 1                | 24           | 24.58              |          | 1   | 24.70            | 21.96              |          | 0.00 | 22.00            |
|             |       | 12               | 0            | 23.15              |          | 2   | 23.70            | 21.83              |          | 0.00 | 22.00            |
|             |       | 12               | 7            | 23.06              |          | 2   | 23.70            | 21.79              |          | 0.00 | 22.00            |
|             | 64QAM | 12               | 13           | 23.05              |          | 2   | 23.70            | 21.93              |          | 0.00 | 22.00            |
|             |       | 25               | 0            | 23.02              |          | 2   | 23.70            | 21.88              |          | 0.00 | 22.00            |
|             |       | 1                | 0            | 23.45              |          | 2   | 23.70            | 21.77              |          | 0.00 | 22.00            |
|             |       | 1                | 12           | 23.35              |          | 2   | 23.70            | 21.75              |          | 0.00 | 22.00            |
|             |       | 1                | 24           | 23.43              |          | 2   | 23.70            | 21.87              |          | 0.00 | 22.00            |
|             |       | 12               | 0            | 22.11              |          | 3   | 22.70            | 21.61              |          | 0.00 | 22.00            |
|             |       | 12               | 7            | 22.36              |          | 3   | 22.70            | 21.50              |          | 0.00 | 22.00            |
|             |       | 12               | 13           | 22.35              |          | 3   | 22.70            | 21.52              |          | 0.00 | 22.00            |
|             |       | 25               | 0            | 22.02              |          | 3   | 22.70            | 21.47              |          | 0.00 | 22.00            |

**LTE Band 30 Measured Results (ANT2)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |  |      |                  | Power Mode B (dBm) |  |      |                  |
|-------------|-------|------------------|--------------|--------------------|--|------|------------------|--------------------|--|------|------------------|
|             |       |                  |              | 27710              |  | MPR  | Tune-up<br>Limit | 27710              |  | MPR  | Tune-up<br>Limit |
| 10 MHz      | QPSK  | 1                | 0            | 20.48              |  | 0    | 21.00            | 20.20              |  | 0    | 20.50            |
|             |       | 1                | 25           | 20.50              |  | 0    | 21.00            | 20.30              |  | 0    | 20.50            |
|             |       | 1                | 49           | 20.47              |  | 0    | 21.00            | 20.20              |  | 0    | 20.50            |
|             |       | 25               | 0            | 20.43              |  | 0    | 21.00            | 20.20              |  | 0    | 20.50            |
|             |       | 25               | 12           | 20.50              |  | 0    | 21.00            | 20.30              |  | 0    | 20.50            |
|             |       | 25               | 25           | 20.47              |  | 0    | 21.00            | 20.30              |  | 0    | 20.50            |
|             |       | 50               | 0            | 20.50              |  | 0    | 21.00            | 20.30              |  | 0    | 20.50            |
|             | 16QAM | 1                | 0            | 20.80              |  | 0    | 21.00            | 20.20              |  | 0    | 20.50            |
|             |       | 1                | 25           | 20.71              |  | 0    | 21.00            | 20.30              |  | 0    | 20.50            |
|             |       | 1                | 49           | 20.23              |  | 0    | 21.00            | 20.20              |  | 0    | 20.50            |
|             |       | 25               | 0            | 20.22              |  | 0    | 21.00            | 20.28              |  | 0    | 20.50            |
|             |       | 25               | 12           | 20.23              |  | 0    | 21.00            | 20.25              |  | 0    | 20.50            |
|             | 64QAM | 25               | 25           | 20.23              |  | 0    | 21.00            | 20.25              |  | 0    | 20.50            |
|             |       | 50               | 0            | 20.14              |  | 0    | 21.00            | 20.26              |  | 0    | 20.50            |
|             |       | 1                | 0            | 20.24              |  | 0    | 21.00            | 20.26              |  | 0    | 20.50            |
|             |       | 1                | 25           | 20.21              |  | 0    | 21.00            | 20.20              |  | 0    | 20.50            |
|             |       | 1                | 49           | 20.19              |  | 0    | 21.00            | 20.26              |  | 0    | 20.50            |
|             |       | 25               | 0            | 20.11              |  | 0.75 | 20.25            | 20.19              |  | 0.25 | 20.25            |
|             |       | 25               | 12           | 20.18              |  | 0.75 | 20.25            | 20.11              |  | 0.25 | 20.25            |
|             |       | 25               | 25           | 20.11              |  | 0.75 | 20.25            | 20.11              |  | 0.25 | 20.25            |
|             |       | 50               | 0            | 20.12              |  | 0.75 | 20.25            | 20.16              |  | 0.25 | 20.25            |
| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |  |      |                  | Power Mode B (dBm) |  |      |                  |
|             |       |                  |              | 27710              |  | MPR  | Tune-up<br>Limit | 27710              |  | MPR  | Tune-up<br>Limit |
| 5 MHz       | QPSK  | 1                | 0            | 20.38              |  | 0    | 21.00            | 20.42              |  | 0    | 20.50            |
|             |       | 1                | 12           | 20.29              |  | 0    | 21.00            | 20.35              |  | 0    | 20.50            |
|             |       | 1                | 24           | 20.34              |  | 0    | 21.00            | 20.37              |  | 0    | 20.50            |
|             |       | 12               | 0            | 20.34              |  | 0    | 21.00            | 20.40              |  | 0    | 20.50            |
|             |       | 12               | 7            | 20.22              |  | 0    | 21.00            | 20.28              |  | 0    | 20.50            |
|             |       | 12               | 13           | 20.27              |  | 0    | 21.00            | 20.32              |  | 0    | 20.50            |
|             |       | 25               | 0            | 20.23              |  | 0    | 21.00            | 20.30              |  | 0    | 20.50            |
|             | 16QAM | 1                | 0            | 20.78              |  | 0    | 21.00            | 20.43              |  | 0    | 20.50            |
|             |       | 1                | 12           | 20.71              |  | 0    | 21.00            | 20.31              |  | 0    | 20.50            |
|             |       | 1                | 24           | 20.71              |  | 0    | 21.00            | 20.35              |  | 0    | 20.50            |
|             |       | 12               | 0            | 20.10              |  | 0    | 21.00            | 20.10              |  | 0    | 20.50            |
|             |       | 12               | 7            | 20.20              |  | 0    | 21.00            | 20.05              |  | 0    | 20.50            |
|             | 64QAM | 12               | 13           | 20.03              |  | 0    | 21.00            | 20.07              |  | 0    | 20.50            |
|             |       | 25               | 0            | 20.01              |  | 0    | 21.00            | 20.07              |  | 0    | 20.50            |
|             |       | 1                | 0            | 20.15              |  | 0    | 21.00            | 20.12              |  | 0    | 20.50            |
|             |       | 1                | 12           | 20.25              |  | 0    | 21.00            | 20.14              |  | 0    | 20.50            |
|             |       | 1                | 24           | 20.15              |  | 0    | 21.00            | 20.17              |  | 0    | 20.50            |
|             |       | 12               | 0            | 20.19              |  | 0.75 | 20.25            | 20.07              |  | 0.25 | 20.25            |
|             |       | 12               | 7            | 20.19              |  | 0.75 | 20.25            | 20.07              |  | 0.25 | 20.25            |
|             |       | 12               | 13           | 20.13              |  | 0.75 | 20.25            | 20.17              |  | 0.25 | 20.25            |
|             |       | 25               | 0            | 20.19              |  | 0.75 | 20.25            | 20.13              |  | 0.25 | 20.25            |

**LTE Band 30 Measured Results (ANT3)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |          |     |                  | Power Mode B (dBm) |          |     |                  |
|-------------|-------|------------------|--------------|--------------------|----------|-----|------------------|--------------------|----------|-----|------------------|
|             |       |                  |              | 27710              | 2310 MHz | MPR | Tune-up<br>Limit | 27710              | 2310 MHz | MPR | Tune-up<br>Limit |
| 10 MHz      | QPSK  | 1                | 0            | 23.94              |          | 0   | 24.50            | 20.60              |          | 0   | 20.75            |
|             |       | 1                | 25           | 24.00              |          | 0   | 24.50            | 20.60              |          | 0   | 20.75            |
|             |       | 1                | 49           | 23.74              |          | 0   | 24.50            | 20.23              |          | 0   | 20.75            |
|             |       | 25               | 0            | 22.96              |          | 1   | 23.50            | 20.40              |          | 0   | 20.75            |
|             |       | 25               | 12           | 23.00              |          | 1   | 23.50            | 20.40              |          | 0   | 20.75            |
|             |       | 25               | 25           | 22.77              |          | 1   | 23.50            | 20.33              |          | 0   | 20.75            |
|             | 16QAM | 50               | 0            | 23.00              |          | 1   | 23.50            | 20.30              |          | 0   | 20.75            |
|             |       | 1                | 0            | 23.18              |          | 1   | 23.50            | 20.58              |          | 0   | 20.75            |
|             |       | 1                | 25           | 23.14              |          | 1   | 23.50            | 20.60              |          | 0   | 20.75            |
|             |       | 1                | 49           | 22.95              |          | 1   | 23.50            | 20.62              |          | 0   | 20.75            |
|             |       | 25               | 0            | 22.01              |          | 2   | 22.50            | 20.71              |          | 0   | 20.75            |
|             |       | 25               | 12           | 21.89              |          | 2   | 22.50            | 20.57              |          | 0   | 20.75            |
|             | 64QAM | 25               | 25           | 21.78              |          | 2   | 22.50            | 20.49              |          | 0   | 20.75            |
|             |       | 50               | 0            | 21.95              |          | 2   | 22.50            | 20.67              |          | 0   | 20.75            |
|             |       | 1                | 0            | 22.03              |          | 2   | 22.50            | 20.56              |          | 0   | 20.75            |
|             |       | 1                | 25           | 22.06              |          | 2   | 22.50            | 20.54              |          | 0   | 20.75            |
|             |       | 1                | 49           | 22.13              |          | 2   | 22.50            | 20.35              |          | 0   | 20.75            |
|             |       | 25               | 0            | 21.29              |          | 3   | 21.50            | 20.46              |          | 0   | 20.75            |
| 5 MHz       | QPSK  | 25               | 12           | 21.17              |          | 3   | 21.50            | 20.34              |          | 0   | 20.75            |
|             |       | 25               | 25           | 21.34              |          | 3   | 21.50            | 20.25              |          | 0   | 20.75            |
|             |       | 50               | 0            | 21.25              |          | 3   | 21.50            | 20.42              |          | 0   | 20.75            |
|             | 16QAM | 1                | 0            | 23.80              |          | 0   | 24.50            | 20.48              |          | 0   | 20.75            |
|             |       | 1                | 12           | 23.86              |          | 0   | 24.50            | 20.57              |          | 0   | 20.75            |
|             |       | 1                | 24           | 23.78              |          | 0   | 24.50            | 20.23              |          | 0   | 20.75            |
|             | 64QAM | 12               | 0            | 22.74              |          | 1   | 23.50            | 20.46              |          | 0   | 20.75            |
|             |       | 12               | 7            | 22.78              |          | 1   | 23.50            | 20.48              |          | 0   | 20.75            |
|             |       | 12               | 13           | 22.69              |          | 1   | 23.50            | 20.42              |          | 0   | 20.75            |
|             | QPSK  | 25               | 0            | 22.79              |          | 1   | 23.50            | 20.49              |          | 0   | 20.75            |
|             |       | 1                | 0            | 23.12              |          | 1   | 23.50            | 20.10              |          | 0   | 20.75            |
|             |       | 1                | 12           | 23.25              |          | 1   | 23.50            | 20.20              |          | 0   | 20.75            |
|             |       | 1                | 24           | 23.13              |          | 1   | 23.50            | 20.11              |          | 0   | 20.75            |
|             | 16QAM | 12               | 0            | 21.76              |          | 2   | 22.50            | 20.23              |          | 0   | 20.75            |
|             |       | 12               | 7            | 21.77              |          | 2   | 22.50            | 20.29              |          | 0   | 20.75            |
|             |       | 12               | 13           | 21.71              |          | 2   | 22.50            | 20.20              |          | 0   | 20.75            |
|             | 64QAM | 25               | 0            | 21.79              |          | 2   | 22.50            | 20.27              |          | 0   | 20.75            |
|             |       | 1                | 0            | 22.01              |          | 2   | 22.50            | 20.65              |          | 0   | 20.75            |
|             |       | 1                | 12           | 22.01              |          | 2   | 22.50            | 20.56              |          | 0   | 20.75            |
|             |       | 1                | 24           | 22.23              |          | 2   | 22.50            | 20.41              |          | 0   | 20.75            |
|             |       | 12               | 0            | 21.02              |          | 3   | 21.50            | 20.10              |          | 0   | 20.75            |
|             |       | 12               | 7            | 21.39              |          | 3   | 21.50            | 20.10              |          | 0   | 20.75            |
|             |       | 12               | 13           | 21.20              |          | 3   | 21.50            | 20.18              |          | 0   | 20.75            |
|             |       | 25               | 0            | 21.45              |          | 3   | 21.50            | 20.21              |          | 0   | 20.75            |

**LTE Band 30 Measured Results (ANT4)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |  |     |                  | Power Mode B (dBm) |  |     |                  |
|-------------|-------|------------------|--------------|--------------------|--|-----|------------------|--------------------|--|-----|------------------|
|             |       |                  |              | 27710<br>2310 MHz  |  | MPR | Tune-up<br>Limit | 27710<br>2310 MHz  |  | MPR | Tune-up<br>Limit |
| 10 MHz      | QPSK  | 1                | 0            | 17.05              |  | 0   | 17.50            | 18.90              |  | 0   | 19.00            |
|             |       | 1                | 25           | 17.50              |  | 0   | 17.50            | 18.90              |  | 0   | 19.00            |
|             |       | 1                | 49           | 17.45              |  | 0   | 17.50            | 18.85              |  | 0   | 19.00            |
|             |       | 25               | 0            | 17.49              |  | 0   | 17.50            | 18.93              |  | 0   | 19.00            |
|             |       | 25               | 12           | 17.50              |  | 0   | 17.50            | 18.94              |  | 0   | 19.00            |
|             |       | 25               | 25           | 17.43              |  | 0   | 17.50            | 18.83              |  | 0   | 19.00            |
|             | 16QAM | 50               | 0            | 17.50              |  | 0   | 17.50            | 18.93              |  | 0   | 19.00            |
|             |       | 1                | 0            | 17.35              |  | 0   | 17.50            | 18.80              |  | 0   | 19.00            |
|             |       | 1                | 25           | 17.41              |  | 0   | 17.50            | 18.83              |  | 0   | 19.00            |
|             |       | 1                | 49           | 17.28              |  | 0   | 17.50            | 18.89              |  | 0   | 19.00            |
|             |       | 25               | 0            | 17.50              |  | 0   | 17.50            | 18.99              |  | 0   | 19.00            |
|             |       | 25               | 12           | 17.04              |  | 0   | 17.50            | 18.98              |  | 0   | 19.00            |
|             | 64QAM | 25               | 25           | 17.43              |  | 0   | 17.50            | 18.88              |  | 0   | 19.00            |
|             |       | 50               | 0            | 17.07              |  | 0   | 17.50            | 18.97              |  | 0   | 19.00            |
|             |       | 1                | 0            | 17.03              |  | 0   | 17.50            | 19.00              |  | 0   | 19.00            |
|             |       | 1                | 25           | 17.05              |  | 0   | 17.50            | 18.98              |  | 0   | 19.00            |
|             |       | 1                | 49           | 17.05              |  | 0   | 17.50            | 18.20              |  | 0   | 19.00            |
|             |       | 25               | 0            | 17.49              |  | 0   | 17.50            | 18.25              |  | 0   | 19.00            |
| 5 MHz       | QPSK  | 25               | 12           | 17.47              |  | 0   | 17.50            | 18.23              |  | 0   | 19.00            |
|             |       | 25               | 25           | 17.42              |  | 0   | 17.50            | 18.10              |  | 0   | 19.00            |
|             |       | 50               | 0            | 17.47              |  | 0   | 17.50            | 18.17              |  | 0   | 19.00            |
|             | 16QAM | 1                | 0            | 17.42              |  | 0   | 17.50            | 18.86              |  | 0   | 19.00            |
|             |       | 1                | 12           | 17.45              |  | 0   | 17.50            | 18.87              |  | 0   | 19.00            |
|             |       | 1                | 24           | 17.36              |  | 0   | 17.50            | 18.85              |  | 0   | 19.00            |
|             | 64QAM | 12               | 0            | 17.34              |  | 0   | 17.50            | 18.82              |  | 0   | 19.00            |
|             |       | 12               | 7            | 17.32              |  | 0   | 17.50            | 18.79              |  | 0   | 19.00            |
|             |       | 12               | 13           | 17.40              |  | 0   | 17.50            | 18.81              |  | 0   | 19.00            |
|             | 16QAM | 25               | 0            | 17.32              |  | 0   | 17.50            | 18.80              |  | 0   | 19.00            |
|             |       | 1                | 0            | 17.18              |  | 0   | 17.50            | 18.99              |  | 0   | 19.00            |
|             |       | 1                | 12           | 17.18              |  | 0   | 17.50            | 18.99              |  | 0   | 19.00            |
|             |       | 1                | 24           | 17.19              |  | 0   | 17.50            | 18.97              |  | 0   | 19.00            |
|             |       | 12               | 0            | 17.35              |  | 0   | 17.50            | 18.88              |  | 0   | 19.00            |
|             | 64QAM | 12               | 7            | 17.33              |  | 0   | 17.50            | 18.83              |  | 0   | 19.00            |
|             |       | 12               | 13           | 17.39              |  | 0   | 17.50            | 18.86              |  | 0   | 19.00            |
|             |       | 25               | 0            | 17.28              |  | 0   | 17.50            | 18.78              |  | 0   | 19.00            |
|             | 16QAM | 1                | 0            | 17.10              |  | 0   | 17.50            | 18.70              |  | 0   | 19.00            |
|             |       | 1                | 12           | 17.03              |  | 0   | 17.50            | 18.82              |  | 0   | 19.00            |
|             |       | 1                | 24           | 17.46              |  | 0   | 17.50            | 18.36              |  | 0   | 19.00            |
|             | 64QAM | 12               | 0            | 17.35              |  | 0   | 17.50            | 18.13              |  | 0   | 19.00            |
|             |       | 12               | 7            | 17.29              |  | 0   | 17.50            | 18.35              |  | 0   | 19.00            |
|             |       | 12               | 13           | 17.32              |  | 0   | 17.50            | 18.09              |  | 0   | 19.00            |
|             |       | 25               | 0            | 17.23              |  | 0   | 17.50            | 18.34              |  | 0   | 19.00            |

**LTE Band 41 Power Class 3 Measured Results (ANT1)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset     | Power Mode A (dBm) |                     |                     |                     |                     |                   |                  | Power Mode B (dBm) |                     |                     |                     |                     |                   |                  |                  |
|-------------|-------|------------------|------------------|--------------------|---------------------|---------------------|---------------------|---------------------|-------------------|------------------|--------------------|---------------------|---------------------|---------------------|---------------------|-------------------|------------------|------------------|
|             |       |                  |                  | 39750<br>2506 MHz  | 40185<br>2549.5 MHz | 40620<br>2593 MHz   | 41055<br>2636.5 MHz | 41490<br>2680 MHz   | MFR               | Tune-up<br>Limit | 39750<br>2506 MHz  | 40185<br>2549.5 MHz | 40620<br>2593 MHz   | 41055<br>2636.5 MHz | 41490<br>2680 MHz   | MFR               | Tune-up<br>Limit |                  |
|             |       |                  |                  |                    |                     |                     |                     |                     |                   |                  |                    |                     |                     |                     |                     |                   |                  |                  |
| 20 MHz      | QPSK  | 1                | 0                | 25.55              | 25.49               | 25.53               | 25.35               | 25.17               | 0                 | 25.70            | 23.60              | 23.74               | 23.64               | 23.60               | 23.43               | 0                 | 24.00            |                  |
|             |       | 1                | 49               | 25.60              | 25.50               | 25.60               | 25.40               | 25.30               | 0                 | 25.70            | 23.72              | 23.90               | 23.75               | 23.72               | 23.71               | 0                 | 24.00            |                  |
|             |       | 1                | 99               | 25.46              | 25.40               | 25.37               | 25.36               | 25.08               | 0                 | 25.70            | 23.60              | 23.57               | 23.71               | 23.55               | 23.33               | 0                 | 24.00            |                  |
|             |       | 50               | 0                | 24.50              | 24.40               | 24.47               | 24.32               | 24.15               | 1                 | 24.70            | 23.72              | 23.70               | 23.62               | 23.68               | 23.33               | 0                 | 24.00            |                  |
|             |       | 50               | 24               | 24.60              | 24.50               | 24.50               | 24.40               | 24.20               | 1                 | 24.70            | 23.75              | 23.74               | 23.65               | 23.65               | 24.00               | 0                 | 24.00            |                  |
|             |       | 50               | 50               | 24.40              | 24.35               | 24.38               | 24.33               | 24.07               | 1                 | 24.70            | 23.59              | 23.73               | 23.59               | 23.55               | 23.35               | 0                 | 24.00            |                  |
|             |       | 100              | 0                | 24.30              | 24.36               | 24.39               | 24.25               | 24.06               | 1                 | 24.70            | 23.56              | 23.50               | 23.58               | 23.50               | 23.58               | 0                 | 24.00            |                  |
|             |       | 1                | 0                | 24.59              | 24.51               | 24.57               | 24.45               | 24.21               | 1                 | 24.70            | 23.62              | 23.68               | 23.70               | 23.61               | 23.58               | 0                 | 24.00            |                  |
|             | 16QAM | 1                | 49               | 24.49              | 24.44               | 24.48               | 24.41               | 24.15               | 1                 | 24.70            | 23.56              | 23.67               | 23.71               | 23.74               | 23.60               | 0                 | 24.00            |                  |
|             |       | 1                | 99               | 24.62              | 24.46               | 24.36               | 24.46               | 24.16               | 1                 | 24.70            | 23.72              | 23.72               | 23.73               | 23.65               | 23.49               | 0                 | 24.00            |                  |
|             |       | 50               | 0                | 23.54              | 23.43               | 23.46               | 23.33               | 23.14               | 2                 | 23.70            | 23.18              | 23.18               | 23.30               | 23.13               | 23.56               | 0.3               | 23.70            |                  |
|             |       | 50               | 24               | 23.47              | 23.39               | 23.43               | 23.30               | 23.08               | 2                 | 23.70            | 23.24              | 23.21               | 23.28               | 23.09               | 23.57               | 0.3               | 23.70            |                  |
|             |       | 50               | 50               | 23.48              | 23.38               | 23.43               | 23.39               | 23.11               | 2                 | 23.70            | 23.24              | 23.20               | 23.27               | 23.01               | 23.50               | 0.3               | 23.70            |                  |
|             |       | 100              | 0                | 23.45              | 23.37               | 23.46               | 23.34               | 23.11               | 2                 | 23.70            | 23.24              | 23.19               | 23.26               | 23.07               | 23.55               | 0.3               | 23.70            |                  |
|             |       | 1                | 0                | 23.18              | 23.21               | 23.22               | 23.28               | 23.03               | 2                 | 23.70            | 23.23              | 23.19               | 23.20               | 23.15               | 23.55               | 0.3               | 23.70            |                  |
|             |       | 1                | 49               | 23.14              | 23.12               | 23.20               | 23.19               | 22.91               | 2                 | 23.70            | 23.19              | 23.17               | 23.10               | 23.09               | 23.49               | 0.3               | 23.70            |                  |
|             | 64QAM | 1                | 99               | 23.24              | 23.13               | 23.17               | 23.15               | 22.86               | 2                 | 23.70            | 23.33              | 23.20               | 23.12               | 23.10               | 23.47               | 0.3               | 23.70            |                  |
|             |       | 50               | 0                | 22.18              | 22.18               | 22.14               | 22.14               | 22.01               | 3                 | 22.70            | 21.89              | 21.93               | 21.95               | 21.78               | 22.48               | 1.3               | 22.70            |                  |
|             |       | 50               | 24               | 22.18              | 22.11               | 22.12               | 22.12               | 21.94               | 3                 | 22.70            | 21.96              | 21.94               | 21.96               | 21.75               | 22.49               | 1.3               | 22.70            |                  |
|             |       | 50               | 50               | 22.16              | 22.12               | 22.09               | 22.10               | 21.92               | 3                 | 22.70            | 21.96              | 21.92               | 21.94               | 22.69               | 22.46               | 1.3               | 22.70            |                  |
| 100         |       | 0                | 22.13            | 22.09              | 22.07               | 22.08               | 21.91               | 3                   | 22.70             | 21.92            | 21.91              | 21.89               | 21.73               | 22.47               | 1.3                 | 22.70             |                  |                  |
| BW<br>(MHz) |       | Mode             | RB<br>Allocation | RB<br>offset       | Power Mode A (dBm)  |                     |                     |                     |                   |                  |                    | Power Mode B (dBm)  |                     |                     |                     |                   |                  |                  |
|             |       |                  |                  |                    | 39750<br>2506 MHz   | 40185<br>2549.5 MHz | 40620<br>2593 MHz   | 41055<br>2636.5 MHz | 41490<br>2680 MHz | MFR              | Tune-up<br>Limit   | 39750<br>2506 MHz   | 40185<br>2549.5 MHz | 40620<br>2593 MHz   | 41055<br>2636.5 MHz | 41490<br>2680 MHz | MFR              | Tune-up<br>Limit |
| 15 MHz      |       | QPSK             | 1                | 0                  | 25.50               | 25.43               | 25.46               | 25.30               | 25.16             |                  |                    | 0                   | 25.70               | 23.58               | 23.75               | 23.65             |                  |                  |
|             | 1     |                  | 37               | 25.43              | 25.37               | 25.36               | 25.23               | 25.07               | 0                 | 25.70            | 23.73              | 23.58               | 23.62               | 23.64               | 23.29               | 0                 | 24.00            |                  |
|             | 1     |                  | 74               | 25.41              | 25.33               | 25.25               | 25.25               | 25.04               | 0                 | 25.70            | 23.73              | 23.74               | 23.68               | 23.51               | 23.26               | 0                 | 24.00            |                  |
|             | 36    |                  | 0                | 24.50              | 24.42               | 24.42               | 24.29               | 24.07               | 1                 | 24.70            | 23.57              | 23.73               | 23.63               | 23.66               | 23.38               | 0                 | 24.00            |                  |
|             | 36    |                  | 20               | 24.45              | 24.41               | 24.41               | 24.29               | 24.06               | 1                 | 24.70            | 23.58              | 23.60               | 23.63               | 23.66               | 23.38               | 0                 | 24.00            |                  |
|             | 36    |                  | 39               | 24.43              | 24.38               | 24.38               | 24.28               | 24.04               | 1                 | 24.70            | 23.60              | 23.58               | 23.61               | 23.56               | 23.34               | 0                 | 24.00            |                  |
|             | 75    |                  | 0                | 24.44              | 24.39               | 24.38               | 24.22               | 24.04               | 1                 | 24.70            | 23.74              | 23.57               | 23.61               | 23.64               | 23.35               | 0                 | 24.00            |                  |
|             | 1     |                  | 0                | 24.48              | 24.45               | 24.42               | 24.14               | 24.16               | 1                 | 24.70            | 23.56              | 23.66               | 23.59               | 23.68               | 23.34               | 0                 | 24.00            |                  |
|             | 16QAM | 1                | 37               | 24.34              | 24.35               | 24.36               | 24.13               | 24.01               | 1                 | 24.70            | 23.67              | 23.66               | 23.58               | 23.64               | 23.25               | 0                 | 24.00            |                  |
|             |       | 1                | 74               | 24.36              | 24.27               | 24.24               | 24.20               | 23.98               | 1                 | 24.70            | 23.56              | 23.61               | 23.62               | 23.50               | 23.15               | 0                 | 24.00            |                  |
|             |       | 36               | 0                | 23.52              | 23.42               | 23.46               | 23.34               | 23.16               | 2                 | 23.70            | 23.70              | 23.68               | 23.52               | 23.63               | 23.37               | 0.3               | 23.70            |                  |
|             |       | 36               | 20               | 23.45              | 23.42               | 23.49               | 23.33               | 23.14               | 2                 | 23.70            | 23.40              | 23.45               | 23.51               | 23.61               | 23.35               | 0.3               | 23.70            |                  |
|             |       | 36               | 39               | 23.43              | 23.38               | 23.45               | 23.38               | 23.09               | 2                 | 23.70            | 23.46              | 23.42               | 23.48               | 23.53               | 23.31               | 0.3               | 23.70            |                  |
|             |       | 75               | 0                | 23.43              | 23.38               | 23.44               | 23.30               | 23.09               | 2                 | 23.70            | 23.67              | 23.43               | 23.49               | 23.58               | 23.33               | 0.3               | 23.70            |                  |
|             |       | 1                | 0                | 23.17              | 23.18               | 23.14               | 23.09               | 23.07               | 2                 | 23.70            | 23.61              | 23.69               | 23.43               | 23.49               | 23.28               | 0.3               | 23.70            |                  |
|             |       | 1                | 37               | 23.12              | 23.10               | 23.06               | 23.08               | 23.00               | 2                 | 23.70            | 23.57              | 23.68               | 23.43               | 23.45               | 23.23               | 0.3               | 23.70            |                  |
|             | 64QAM | 1                | 74               | 23.17              | 23.06               | 23.04               | 23.00               | 22.86               | 2                 | 23.70            | 23.68              | 23.63               | 23.61               | 23.35               | 23.18               | 0.3               | 23.70            |                  |
|             |       | 36               | 0                | 22.17              | 22.14               | 22.18               | 22.20               | 21.98               | 3                 | 22.70            | 21.88              | 21.90               | 21.93               | 21.77               | 21.90               | 1.3               | 22.70            |                  |
|             |       | 36               | 20               | 22.18              | 22.09               | 22.18               | 22.20               | 21.92               | 3                 | 22.70            | 21.95              | 21.93               | 21.93               | 21.77               | 21.96               | 1.3               | 22.70            |                  |
|             |       | 36               | 39               | 22.16              | 22.08               | 22.16               | 22.17               | 21.91               | 3                 | 22.70            | 21.94              | 21.91               | 21.90               | 21.80               | 21.92               | 1.3               | 22.70            |                  |
| 75          |       | 0                | 22.15            | 22.07              | 22.11               | 22.14               | 21.88               | 3                   | 22.70             | 21.92            | 21.90              | 21.90               | 21.72               | 21.93               | 1.3                 | 22.70             |                  |                  |
| BW<br>(MHz) |       | Mode             | RB<br>Allocation | RB<br>offset       | Power Mode A (dBm)  |                     |                     |                     |                   |                  |                    | Power Mode B (dBm)  |                     |                     |                     |                   |                  |                  |
|             |       |                  |                  |                    | 39750<br>2506 MHz   | 40185<br>2549.5 MHz | 40620<br>2593 MHz   | 41055<br>2636.5 MHz | 41490<br>2680 MHz | MFR              | Tune-up<br>Limit   | 39750<br>2506 MHz   | 40185<br>2549.5 MHz | 40620<br>2593 MHz   | 41055<br>2636.5 MHz | 41490<br>2680 MHz | MFR              | Tune-up<br>Limit |
| 10 MHz      |       | QPSK             | 1                | 0                  | 25.45               | 25.39               | 25.39               | 25.31               | 25.11             |                  |                    | 0                   | 25.70               | 23.56               | 23.56               | 23.66             |                  |                  |
|             | 1     |                  | 25               | 25.40              | 25.38               | 25.38               | 25.30               | 25.08               | 0                 | 25.70            | 23.71              | 23.57               | 23.63               | 23.52               | 23.30               | 0                 | 24.00            |                  |
|             | 1     |                  | 49               | 25.44              | 25.40               | 25.40               | 25.35               | 25.09               | 0                 | 25.70            | 23.57              | 23.59               | 23.63               | 23.53               | 23.30               | 0                 | 24.00            |                  |
|             | 25    |                  | 0                | 24.51              | 24.43               | 24.42               | 24.31               | 24.14               | 1                 | 24.70            | 23.57              | 23.72               | 23.64               | 23.64               | 23.33               | 0                 | 24.00            |                  |
|             | 25    |                  | 12               | 24.42              | 24.40               | 24.40               | 24.29               | 24.10               | 1                 | 24.70            | 23.56              | 23.58               | 23.63               | 23.55               | 23.30               | 0                 | 24.00            |                  |
|             | 25    |                  | 25               | 24.42              | 24.41               | 24.39               | 24.37               | 24.10               | 1                 | 24.70            | 23.73              | 23.58               | 23.63               | 23.55               | 23.31               | 0                 | 24.00            |                  |
|             | 50    |                  | 0                | 24.43              | 24.41               | 24.41               | 24.29               | 24.11               | 1                 | 24.70            | 23.55              | 23.58               | 23.63               | 23.56               | 23.32               | 0                 | 24.00            |                  |
|             | 1     |                  | 0                | 24.54              | 24.49               | 24.35               | 24.18               | 24.13               | 1                 | 24.70            | 23.62              | 23.64               | 23.59               | 23.70               | 23.24               | 0                 | 24.00            |                  |
|             | 16QAM | 1                | 25               | 24.42              | 24.47               | 24.30               | 24.18               | 24.01               | 1                 | 24.70            | 23.75              | 23.69               | 23.58               | 23.63               | 23.12               | 0                 | 24.00            |                  |
|             |       | 1                | 49               | 24.49              | 24.47               | 24.28               | 24.23               | 24.03               | 1                 | 24.70            | 23.64              | 23.66               | 23.59               | 23.61               | 23.17               | 0                 | 24.00            |                  |
|             |       | 25               | 0                | 23.49              | 23.45               | 23.42               | 23.34               | 23.17               | 2                 | 23.70            | 23.40              | 23.68               | 23.48               | 23.61               | 23.33               | 0.3               | 23.70            |                  |
|             |       | 25               | 12               | 23.44              | 23.42               | 23.40               | 23.32               | 23.12               | 2                 | 23.70            | 23.67              | 23.43               | 23.48               | 23.52               | 23.30               | 0.3               | 23.70            |                  |
|             |       | 25               | 25               | 23.47              | 23.42               | 23.44               | 23.39               | 23.10               | 2                 | 23.70            | 23.69              | 23.43               | 23.48               | 23.52               | 23.31               | 0.3               | 23.70            |                  |
|             |       | 50               | 0                | 23.48              | 23.40               | 23.47               | 23.33               | 23.14               | 2                 | 23.70            | 23.69              | 23.44               | 23.48               | 23.52               | 23.33               | 0.3               | 23.70            |                  |
|             |       | 1                | 0                | 23.13              | 23.15               | 23.13               | 23.10               | 23.03               | 2                 | 23.70            | 23.51              | 23.62               | 23.41               | 23.44               | 23.28               | 0.3               | 23.70            |                  |
|             |       | 1                | 25               | 23.13              | 23.03               | 23.07               | 23.15               | 22.97               | 2                 | 23.70            | 23.54              | 23.60               | 23.63               | 23.41               | 23.26               | 0.3               | 23.70            |                  |
|             | 64QAM | 1                | 49               | 23.22              | 23.08               | 23.03               | 23.12               | 22.93               | 2                 | 23.70            | 23.68              | 23.62               | 23.68               | 23.40               | 23.16               | 0.3               | 23.70            |                  |
|             |       | 25               | 0                | 22.17              | 22.11               | 22.13               | 22.16               | 21.98               | 3                 | 22.70            | 22.34              | 22.37               | 22.39               | 22.22               | 22.00               | 1.3               | 22.70            |                  |
|             |       | 25               | 12               | 22.19              | 22.09               | 22.11               | 22.16               | 21.96               | 3                 | 22.70            | 22.39              | 22.35               | 22.37               | 22.20               | 21.97               | 1.3               | 22.70            |                  |
|             |       | 25               | 25               | 22.18              | 22.10               | 22.11               | 22.16               | 21.98               | 3                 | 22.70            | 22.40              | 22.35               | 22.37               | 22.16               | 21.95               | 1.3               | 22.70            |                  |
| 50          |       | 0                | 22.16            | 22.10              | 22.11               | 22.16               | 21.98               | 3                   | 22.70             | 22.42            | 22.36              | 22.39               | 22.23               | 21.98               | 1.3                 | 22.70             |                  |                  |

**LTE Band 41 Power Class 3 Measured Results (ANT1) (continued)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |            |          |            |          |     |                  | Power Mode B (dBm) |            |          |            |          |     |                  |
|-------------|-------|------------------|--------------|--------------------|------------|----------|------------|----------|-----|------------------|--------------------|------------|----------|------------|----------|-----|------------------|
|             |       |                  |              | 39750              | 40185      | 40620    | 41055      | 41490    | MPR | Tune-up<br>Limit | 39750              | 40185      | 40620    | 41055      | 41490    | MPR | Tune-up<br>Limit |
|             |       |                  |              | 2506 MHz           | 2549.5 MHz | 2593 MHz | 2636.5 MHz | 2680 MHz |     |                  | 2506 MHz           | 2549.5 MHz | 2593 MHz | 2636.5 MHz | 2680 MHz |     |                  |
| 5 MHz       | QPSK  | 1                | 0            | 25.46              | 25.34      | 25.36    | 25.23      | 25.07    | 0   | 25.70            | 23.72              | 23.65      | 23.61    | 23.57      | 23.33    | 0   | 24.00            |
|             |       | 1                | 12           | 25.40              | 25.31      | 25.30    | 25.21      | 25.05    | 0   | 25.70            | 23.70              | 23.61      | 23.56    | 23.56      | 23.30    | 0   | 24.00            |
|             |       | 1                | 24           | 25.43              | 25.37      | 25.33    | 25.30      | 25.08    | 0   | 25.70            | 23.69              | 23.70      | 23.59    | 23.56      | 23.31    | 0   | 24.00            |
|             |       | 12               | 0            | 24.33              | 24.30      | 24.30    | 24.17      | 23.96    | 1   | 24.70            | 23.60              | 23.55      | 23.70    | 23.49      | 23.25    | 0   | 24.00            |
|             |       | 12               | 7            | 24.31              | 24.27      | 24.28    | 24.14      | 23.94    | 1   | 24.70            | 23.60              | 23.53      | 23.69    | 23.48      | 23.23    | 0   | 24.00            |
|             |       | 12               | 13           | 24.30              | 24.27      | 24.28    | 24.14      | 23.92    | 1   | 24.70            | 23.60              | 23.60      | 23.68    | 23.47      | 23.23    | 0   | 24.00            |
|             |       | 25               | 0            | 24.28              | 24.27      | 24.29    | 24.18      | 23.95    | 1   | 24.70            | 23.59              | 23.55      | 23.71    | 23.48      | 23.24    | 0   | 24.00            |
|             | 16QAM | 1                | 0            | 24.43              | 24.36      | 24.32    | 24.23      | 24.23    | 1   | 24.70            | 23.72              | 23.62      | 23.65    | 23.53      | 23.22    | 0   | 24.00            |
|             |       | 1                | 12           | 24.35              | 24.29      | 24.33    | 24.18      | 24.09    | 1   | 24.70            | 23.68              | 23.59      | 23.69    | 23.50      | 23.15    | 0   | 24.00            |
|             |       | 1                | 24           | 24.40              | 24.30      | 24.31    | 24.25      | 24.17    | 1   | 24.70            | 23.68              | 23.65      | 23.71    | 23.56      | 23.26    | 0   | 24.00            |
|             |       | 12               | 0            | 23.28              | 23.24      | 23.24    | 23.16      | 22.94    | 2   | 23.70            | 23.54              | 23.46      | 23.63    | 23.41      | 23.13    | 0.3 | 23.70            |
|             |       | 12               | 7            | 23.31              | 23.21      | 23.29    | 23.12      | 22.90    | 2   | 23.70            | 23.51              | 23.50      | 23.61    | 23.37      | 23.11    | 0.3 | 23.70            |
|             |       | 12               | 13           | 23.30              | 23.23      | 23.26    | 23.12      | 22.88    | 2   | 23.70            | 23.52              | 23.55      | 23.61    | 23.37      | 23.12    | 0.3 | 23.70            |
|             |       | 25               | 0            | 23.27              | 23.25      | 23.28    | 23.15      | 22.88    | 2   | 23.70            | 23.49              | 23.51      | 23.62    | 23.36      | 23.14    | 0.3 | 23.70            |
|             | 64QAM | 1                | 0            | 23.15              | 23.17      | 23.14    | 23.12      | 22.99    | 2   | 23.70            | 23.54              | 23.60      | 23.62    | 23.42      | 23.23    | 0.3 | 23.70            |
|             |       | 1                | 12           | 23.16              | 23.02      | 23.08    | 23.05      | 22.94    | 2   | 23.70            | 23.66              | 23.63      | 23.65    | 23.46      | 23.23    | 0.3 | 23.70            |
|             |       | 1                | 24           | 23.13              | 23.11      | 23.08    | 23.06      | 23.00    | 2   | 23.70            | 23.65              | 23.60      | 23.69    | 23.37      | 23.18    | 0.3 | 23.70            |
|             |       | 12               | 0            | 22.05              | 22.00      | 21.95    | 21.89      | 21.78    | 3   | 22.70            | 22.28              | 22.27      | 22.18    | 22.06      | 21.78    | 1.3 | 22.70            |
|             |       | 12               | 7            | 22.06              | 21.96      | 21.94    | 21.86      | 21.76    | 3   | 22.70            | 22.22              | 22.23      | 22.17    | 22.06      | 21.77    | 1.3 | 22.70            |
|             |       | 12               | 13           | 22.07              | 21.97      | 21.93    | 21.87      | 21.75    | 3   | 22.70            | 22.23              | 22.23      | 22.19    | 22.04      | 21.78    | 1.3 | 22.70            |
|             |       | 25               | 0            | 22.02              | 21.93      | 21.95    | 21.92      | 21.79    | 3   | 22.70            | 22.28              | 22.21      | 22.21    | 22.52      | 22.24    | 1.3 | 22.70            |

**LTE Band 41 Power Class 3 Measured Results (ANT2)**

| BW (MHz) | Mode  | RB Allocation | RB offset | Power Mode A (dBm) |            |          |            |          |     |               | Power Mode B (dBm) |            |          |            |          |     |               |
|----------|-------|---------------|-----------|--------------------|------------|----------|------------|----------|-----|---------------|--------------------|------------|----------|------------|----------|-----|---------------|
|          |       |               |           | 39750              | 40185      | 40620    | 41055      | 41490    | MPR | Tune-up Limit | 39750              | 40185      | 40620    | 41055      | 41490    | MPR | Tune-up Limit |
|          |       |               |           | 2506 MHz           | 2549.5 MHz | 2593 MHz | 2636.5 MHz | 2680 MHz |     |               | 2506 MHz           | 2549.5 MHz | 2593 MHz | 2636.5 MHz | 2680 MHz |     |               |
| 20 MHz   | QPSK  | 1             | 0         | 19.68              | 19.56      | 19.39    | 19.39      | 19.42    | 0   | 20.00         | 22.50              | 22.48      | 22.70    | 22.40      | 22.40    | 0   | 22.75         |
|          |       | 1             | 49        | 19.70              | 19.60      | 19.80    | 20.00      | 20.00    | 0   | 20.00         | 22.75              | 22.50      | 22.70    | 22.40      | 22.40    | 0   | 22.75         |
|          |       | 1             | 99        | 19.57              | 19.49      | 19.44    | 19.45      | 19.39    | 0   | 20.00         | 22.40              | 22.49      | 22.70    | 22.40      | 22.40    | 0   | 22.75         |
|          |       | 50            | 0         | 19.60              | 19.56      | 19.83    | 19.79      | 19.80    | 0   | 20.00         | 22.03              | 22.01      | 22.15    | 22.05      | 22.10    | 0.5 | 22.25         |
|          |       | 50            | 24        | 19.60              | 19.70      | 19.80    | 20.00      | 20.00    | 0   | 20.00         | 22.25              | 22.11      | 22.15    | 22.10      | 22.12    | 0.5 | 22.25         |
|          |       | 50            | 50        | 19.52              | 19.50      | 19.80    | 19.81      | 19.74    | 0   | 20.00         | 22.15              | 22.00      | 22.09    | 22.04      | 22.02    | 0.5 | 22.25         |
|          |       | 100           | 0         | 19.70              | 19.70      | 19.75    | 19.75      | 19.75    | 0   | 20.00         | 22.16              | 22.01      | 22.20    | 22.08      | 22.15    | 0.5 | 22.25         |
|          | 16QAM | 1             | 0         | 19.75              | 19.70      | 19.90    | 19.87      | 19.97    | 0   | 20.00         | 22.20              | 22.15      | 22.22    | 22.23      | 22.05    | 0.5 | 22.25         |
|          |       | 1             | 49        | 19.64              | 19.63      | 19.99    | 19.80      | 19.86    | 0   | 20.00         | 22.19              | 22.00      | 22.21    | 22.17      | 22.01    | 0.5 | 22.25         |
|          |       | 1             | 99        | 19.61              | 19.66      | 19.95    | 19.93      | 19.87    | 0   | 20.00         | 22.06              | 22.06      | 22.17    | 22.23      | 22.08    | 0.5 | 22.25         |
|          |       | 50            | 0         | 19.69              | 19.56      | 19.58    | 19.55      | 19.50    | 0   | 20.00         | 21.18              | 21.04      | 21.20    | 21.07      | 21.03    | 1.5 | 21.25         |
|          |       | 50            | 24        | 19.58              | 19.51      | 19.55    | 19.51      | 19.48    | 0   | 20.00         | 21.19              | 21.24      | 21.16    | 21.03      | 21.00    | 1.5 | 21.25         |
|          |       | 50            | 50        | 19.55              | 19.49      | 19.53    | 19.59      | 19.54    | 0   | 20.00         | 21.08              | 20.13      | 21.11    | 21.00      | 21.03    | 1.5 | 21.25         |
|          |       | 100           | 0         | 19.56              | 19.48      | 19.52    | 19.50      | 19.45    | 0   | 20.00         | 21.17              | 21.21      | 21.09    | 21.19      | 21.08    | 1.5 | 21.25         |
|          | 64QAM | 1             | 0         | 19.49              | 19.47      | 19.63    | 19.80      | 19.83    | 0   | 20.00         | 21.15              | 21.13      | 21.10    | 21.05      | 21.20    | 1.5 | 21.25         |
|          |       | 1             | 49        | 19.96              | 19.97      | 19.60    | 19.76      | 19.73    | 0   | 20.00         | 21.03              | 21.19      | 21.15    | 21.01      | 21.07    | 1.5 | 21.25         |
|          |       | 1             | 99        | 19.95              | 19.99      | 19.64    | 19.72      | 19.70    | 0   | 20.00         | 21.08              | 21.04      | 21.24    | 21.01      | 21.15    | 1.5 | 21.25         |
|          |       | 50            | 0         | 19.63              | 19.55      | 19.36    | 19.50      | 19.36    | 0   | 20.00         | 20.12              | 20.00      | 20.04    | 20.19      | 20.04    | 2.5 | 20.25         |
|          |       | 50            | 24        | 19.55              | 19.48      | 19.41    | 19.48      | 19.42    | 0   | 20.00         | 20.07              | 20.14      | 20.08    | 20.18      | 20.07    | 2.5 | 20.25         |
|          |       | 50            | 50        | 19.51              | 19.45      | 19.39    | 19.45      | 19.38    | 0   | 20.00         | 20.04              | 20.14      | 20.09    | 20.16      | 20.07    | 2.5 | 20.25         |
|          |       | 100           | 0         | 19.49              | 20.00      | 19.39    | 19.45      | 19.36    | 0   | 20.00         | 20.03              | 20.11      | 20.06    | 20.17      | 20.06    | 2.5 | 20.25         |
|          |       |               |           |                    |            |          |            |          |     |               |                    |            |          |            |          |     |               |
| 15 MHz   | QPSK  | 1             | 0         | 19.67              | 19.57      | 19.98    | 19.84      | 19.87    | 0   | 20.00         | 22.64              | 22.54      | 22.57    | 22.52      | 22.52    | 0   | 22.75         |
|          |       | 1             | 37        | 19.52              | 19.47      | 19.92    | 19.82      | 19.80    | 0   | 20.00         | 22.52              | 22.46      | 22.55    | 22.50      | 22.44    | 0   | 22.75         |
|          |       | 1             | 74        | 19.51              | 19.46      | 19.92    | 19.86      | 19.80    | 0   | 20.00         | 22.47              | 22.44      | 22.57    | 22.53      | 22.46    | 0   | 22.75         |
|          |       | 36            | 0         | 19.57              | 19.54      | 19.51    | 19.45      | 19.41    | 0   | 20.00         | 22.03              | 22.10      | 22.21    | 22.11      | 22.09    | 0.5 | 22.25         |
|          |       | 36            | 20        | 19.55              | 19.48      | 19.54    | 19.44      | 19.42    | 0   | 20.00         | 21.99              | 22.02      | 22.21    | 22.10      | 22.10    | 0.5 | 22.25         |
|          |       | 36            | 39        | 19.53              | 19.46      | 19.53    | 19.50      | 19.99    | 0   | 20.00         | 21.96              | 22.01      | 22.19    | 22.15      | 22.08    | 0.5 | 22.25         |
|          |       | 75            | 0         | 19.55              | 19.45      | 19.53    | 19.42      | 19.96    | 0   | 20.00         | 21.97              | 22.00      | 22.20    | 22.07      | 22.06    | 0.5 | 22.25         |
|          | 16QAM | 1             | 0         | 19.69              | 19.47      | 19.55    | 19.43      | 19.41    | 0   | 20.00         | 22.03              | 22.12      | 22.24    | 22.08      | 22.11    | 0.5 | 22.25         |
|          |       | 1             | 37        | 19.61              | 19.43      | 19.51    | 19.41      | 20.00    | 0   | 20.00         | 22.11              | 22.01      | 22.20    | 22.09      | 22.05    | 0.5 | 22.25         |
|          |       | 1             | 74        | 19.56              | 19.35      | 19.52    | 19.43      | 19.95    | 0   | 20.00         | 22.06              | 22.19      | 22.18    | 22.12      | 21.98    | 0.5 | 22.25         |
|          |       | 36            | 0         | 19.63              | 19.65      | 19.74    | 19.66      | 19.63    | 0   | 20.00         | 21.06              | 21.12      | 21.23    | 21.18      | 21.13    | 1.5 | 21.25         |
|          |       | 36            | 20        | 19.60              | 19.58      | 19.77    | 19.66      | 19.63    | 0   | 20.00         | 21.05              | 21.04      | 21.21    | 21.17      | 21.14    | 1.5 | 21.25         |
|          |       | 36            | 39        | 19.58              | 19.56      | 19.73    | 19.71      | 19.63    | 0   | 20.00         | 21.03              | 21.02      | 21.20    | 21.23      | 21.12    | 1.5 | 21.25         |
|          |       | 75            | 0         | 19.58              | 19.56      | 19.72    | 19.64      | 19.61    | 0   | 20.00         | 21.03              | 21.01      | 21.18    | 21.13      | 21.12    | 1.5 | 21.25         |
|          | 64QAM | 1             | 0         | 19.48              | 19.90      | 19.90    | 19.93      | 19.81    | 0   | 20.00         | 21.01              | 21.02      | 21.16    | 21.17      | 21.20    | 1.5 | 21.25         |
|          |       | 1             | 37        | 19.96              | 19.81      | 19.86    | 19.92      | 19.75    | 0   | 20.00         | 21.09              | 21.08      | 21.02    | 21.13      | 21.05    | 1.5 | 21.25         |
|          |       | 1             | 74        | 19.90              | 19.80      | 19.95    | 19.86      | 19.74    | 0   | 20.00         | 21.06              | 21.11      | 21.23    | 21.11      | 21.16    | 1.5 | 21.25         |
|          |       | 36            | 0         | 19.59              | 19.54      | 19.06    | 19.11      | 19.06    | 0   | 20.00         | 20.14              | 19.96      | 20.07    | 20.07      | 20.01    | 2.5 | 20.25         |
|          |       | 36            | 20        | 19.52              | 19.50      | 19.53    | 19.51      | 19.55    | 0   | 20.00         | 20.12              | 19.94      | 20.11    | 20.09      | 20.07    | 2.5 | 20.25         |
|          |       | 36            | 39        | 19.49              | 19.50      | 19.52    | 19.48      | 19.52    | 0   | 20.00         | 20.05              | 19.91      | 20.10    | 20.07      | 20.04    | 2.5 | 20.25         |
|          |       | 75            | 0         | 19.49              | 19.45      | 19.50    | 19.47      | 19.47    | 0   | 20.00         | 20.04              | 19.91      | 20.04    | 20.02      | 20.04    | 2.5 | 20.25         |
|          |       |               |           |                    |            |          |            |          |     |               |                    |            |          |            |          |     |               |
| 10 MHz   | QPSK  | 1             | 0         | 19.58              | 19.55      | 19.89    | 19.85      | 19.84    | 0   | 20.00         | 22.61              | 22.55      | 22.62    | 22.50      | 22.53    | 0   | 22.75         |
|          |       | 1             | 25        | 19.48              | 19.48      | 19.85    | 19.81      | 19.79    | 0   | 20.00         | 22.48              | 22.46      | 22.56    | 22.47      | 22.52    | 0   | 22.75         |
|          |       | 1             | 49        | 19.50              | 19.51      | 19.86    | 19.89      | 19.85    | 0   | 20.00         | 22.49              | 22.48      | 22.59    | 22.57      | 22.60    | 0   | 22.75         |
|          |       | 25            | 0         | 19.58              | 19.49      | 19.50    | 19.41      | 19.98    | 0   | 20.00         | 22.09              | 22.00      | 22.24    | 22.12      | 22.09    | 0.5 | 22.25         |
|          |       | 25            | 12        | 19.50              | 19.47      | 19.49    | 20.00      | 19.96    | 0   | 20.00         | 22.00              | 21.98      | 22.19    | 22.10      | 22.07    | 0.5 | 22.25         |
|          |       | 25            | 25        | 19.50              | 19.46      | 19.49    | 19.40      | 19.96    | 0   | 20.00         | 22.01              | 21.99      | 22.20    | 22.17      | 22.07    | 0.5 | 22.25         |
|          |       | 50            | 0         | 19.52              | 19.45      | 19.50    | 19.50      | 19.97    | 0   | 20.00         | 22.04              | 21.99      | 22.22    | 22.13      | 22.11    | 0.5 | 22.25         |
|          | 16QAM | 1             | 0         | 19.72              | 19.48      | 19.61    | 19.43      | 19.37    | 0   | 20.00         | 22.08              | 22.16      | 22.24    | 22.18      | 22.09    | 0.5 | 22.25         |
|          |       | 1             | 25        | 19.56              | 19.41      | 19.54    | 19.41      | 19.96    | 0   | 20.00         | 22.16              | 22.06      | 22.21    | 22.19      | 22.06    | 0.5 | 22.25         |
|          |       | 1             | 49        | 19.58              | 19.45      | 19.59    | 19.41      | 19.36    | 0   | 20.00         | 22.18              | 22.06      | 22.16    | 22.23      | 22.12    | 0.5 | 22.25         |
|          |       | 25            | 0         | 19.62              | 19.47      | 19.75    | 19.48      | 19.63    | 0   | 20.00         | 21.14              | 21.04      | 21.14    | 21.07      | 21.05    | 1.5 | 21.25         |
|          |       | 25            | 12        | 19.53              | 19.46      | 19.72    | 19.70      | 19.62    | 0   | 20.00         | 21.06              | 21.02      | 21.13    | 21.06      | 21.03    | 1.5 | 21.25         |
|          |       | 25            | 25        | 19.53              | 19.45      | 19.72    | 19.76      | 19.62    | 0   | 20.00         | 21.06              | 21.03      | 21.11    | 21.12      | 21.03    | 1.5 | 21.25         |
|          |       | 50            | 0         | 19.54              | 19.48      | 19.71    | 19.72      | 19.64    | 0   | 20.00         | 21.08              | 21.02      | 21.11    | 21.05      | 21.04    | 1.5 | 21.25         |
|          | 64QAM | 1             | 0         | 19.96              | 19.96      | 19.87    | 19.93      | 19.79    | 0   | 20.00         | 21.18              | 21.16      | 21.03    | 21.20      | 21.17    | 1.5 | 21.25         |
|          |       | 1             | 25        | 19.80              | 19.82      | 19.87    | 19.93      | 19.76    | 0   | 20.00         | 21.21              | 21.06      | 21.02    | 21.20      | 21.15    | 1.5 | 21.25         |
|          |       | 1             | 49        | 19.83              | 19.89      | 19.95    | 19.95      | 19.87    | 0   | 20.00         | 21.13              | 21.08      | 21.10    | 21.17      | 21.20    | 1.5 | 21.25         |
|          |       | 25            | 0         | 19.53              | 19.51      | 19.47    | 19.54      | 19.53    | 0   | 20.00         | 20.11              | 20.00      | 20.09    | 20.16      | 20.06    | 2.5 | 20.25         |
|          |       | 25            | 12        | 19.47              | 19.48      | 19.51    | 19.51      | 19.51    | 0   | 20.00         | 20.06              | 20.18      | 20.02    | 20.14      | 20.06    | 2.5 | 20.25         |
|          |       | 25            | 25        | 19.48              | 19.49      | 19.52    | 19.52      | 19.51    | 0   | 20.00         | 20.06              | 20.00      | 20.05    | 20.14      | 20.06    | 2.5 | 20.25         |
|          |       | 50            | 0         | 19.49              | 19.48      | 19.53    | 19.52      | 19.50    | 0   | 20.00         | 20.07              | 20.19      | 20.03    | 20.15      | 20.06    | 2.5 | 20.25         |
|          |       |               |           |                    |            |          |            |          |     |               |                    |            |          |            |          |     |               |

**LTE Band 41 Power Class 3 Measured Results (ANT2) (continued)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |            |          |            |          |     |                  | Power Mode B (dBm) |            |          |            |          |     |                  |
|-------------|-------|------------------|--------------|--------------------|------------|----------|------------|----------|-----|------------------|--------------------|------------|----------|------------|----------|-----|------------------|
|             |       |                  |              | 39750              | 40185      | 40620    | 41055      | 41490    | MPR | Tune-up<br>Limit | 39750              | 40185      | 40620    | 41055      | 41490    | MPR | Tune-up<br>Limit |
|             |       |                  |              | 2506 MHz           | 2549.5 MHz | 2593 MHz | 2636.5 MHz | 2680 MHz |     |                  | 2506 MHz           | 2549.5 MHz | 2593 MHz | 2636.5 MHz | 2680 MHz |     |                  |
| 5 MHz       | QPSK  | 1                | 0            | 19.62              | 19.45      | 19.87    | 19.81      | 19.82    | 0   | 20.00            | 22.58              | 22.47      | 22.57    | 22.44      | 22.50    | 0   | 22.75            |
|             |       | 1                | 12           | 19.48              | 19.41      | 19.80    | 19.71      | 19.75    | 0   | 20.00            | 22.47              | 22.43      | 22.55    | 22.42      | 22.49    | 0   | 22.75            |
|             |       | 1                | 24           | 19.52              | 19.45      | 19.84    | 19.79      | 19.78    | 0   | 20.00            | 22.50              | 22.50      | 22.59    | 22.53      | 22.49    | 0   | 22.75            |
|             |       | 12               | 0            | 19.43              | 19.34      | 19.98    | 19.86      | 19.86    | 0   | 20.00            | 22.10              | 22.10      | 22.11    | 22.00      | 22.05    | 0.5 | 22.25            |
|             |       | 12               | 7            | 19.43              | 19.32      | 19.98    | 19.92      | 19.85    | 0   | 20.00            | 22.08              | 22.08      | 22.11    | 22.08      | 22.08    | 0.5 | 22.25            |
|             |       | 12               | 13           | 19.42              | 19.33      | 19.98    | 19.91      | 19.84    | 0   | 20.00            | 22.08              | 22.08      | 22.11    | 22.08      | 22.07    | 0.5 | 22.25            |
|             |       | 25               | 0            | 19.44              | 19.34      | 19.98    | 19.94      | 19.88    | 0   | 20.00            | 22.11              | 22.10      | 22.11    | 22.09      | 22.05    | 0.5 | 22.25            |
|             | 16QAM | 1                | 0            | 19.66              | 19.60      | 19.48    | 19.43      | 19.49    | 0   | 20.00            | 22.16              | 22.21      | 22.17    | 22.10      | 22.16    | 0.5 | 22.25            |
|             |       | 1                | 12           | 19.59              | 19.57      | 19.45    | 19.98      | 19.47    | 0   | 20.00            | 22.19              | 22.14      | 22.13    | 22.05      | 22.14    | 0.5 | 22.25            |
|             |       | 1                | 24           | 19.59              | 19.64      | 19.47    | 19.48      | 19.51    | 0   | 20.00            | 22.14              | 22.17      | 22.17    | 22.11      | 22.17    | 0.5 | 22.25            |
|             |       | 12               | 0            | 19.39              | 19.35      | 19.57    | 19.51      | 19.50    | 0   | 20.00            | 21.09              | 21.03      | 21.01    | 21.16      | 21.18    | 1.5 | 21.25            |
|             |       | 12               | 7            | 19.36              | 19.34      | 19.56    | 19.48      | 19.45    | 0   | 20.00            | 21.08              | 21.07      | 21.19    | 21.14      | 21.19    | 1.5 | 21.25            |
|             |       | 12               | 13           | 19.37              | 19.34      | 19.61    | 19.49      | 19.49    | 0   | 20.00            | 21.07              | 21.10      | 21.19    | 21.15      | 21.16    | 1.5 | 21.25            |
|             |       | 25               | 0            | 19.38              | 19.32      | 19.61    | 19.50      | 19.50    | 0   | 20.00            | 21.07              | 21.10      | 21.17    | 21.15      | 21.16    | 1.5 | 21.25            |
|             | 64QAM | 1                | 0            | 19.41              | 19.82      | 19.86    | 19.86      | 19.90    | 0   | 20.00            | 21.16              | 21.16      | 21.24    | 21.18      | 21.13    | 1.5 | 21.25            |
|             |       | 1                | 12           | 19.85              | 19.82      | 19.83    | 19.88      | 19.82    | 0   | 20.00            | 21.07              | 21.15      | 21.01    | 21.11      | 21.12    | 1.5 | 21.25            |
|             |       | 1                | 24           | 19.93              | 19.82      | 19.87    | 19.87      | 19.85    | 0   | 20.00            | 21.03              | 21.02      | 21.03    | 21.03      | 21.20    | 1.5 | 21.25            |
|             |       | 12               | 0            | 19.99              | 19.82      | 19.86    | 19.95      | 19.83    | 0   | 20.00            | 20.24              | 20.07      | 20.16    | 20.11      | 20.09    | 2.5 | 20.25            |
|             |       | 12               | 7            | 19.98              | 19.80      | 19.85    | 19.96      | 19.86    | 0   | 20.00            | 20.21              | 20.12      | 20.17    | 20.16      | 20.02    | 2.5 | 20.25            |
|             |       | 12               | 13           | 19.96              | 19.80      | 19.87    | 19.94      | 19.88    | 0   | 20.00            | 20.22              | 20.12      | 20.13    | 20.06      | 20.05    | 2.5 | 20.25            |
|             |       | 25               | 0            | 19.93              | 19.84      | 19.90    | 19.91      | 19.88    | 0   | 20.00            | 20.18              | 20.15      | 20.20    | 20.17      | 20.03    | 2.5 | 20.25            |

**LTE Band 41 Power Class 3 Measured Results (ANT3)**

| BW (MHz) | Mode  | RB Allocation | RB offset | Power Mode A (dBm) |            |          |            |          |     |               | Power Mode B (dBm) |            |          |            |          |     |               |
|----------|-------|---------------|-----------|--------------------|------------|----------|------------|----------|-----|---------------|--------------------|------------|----------|------------|----------|-----|---------------|
|          |       |               |           | 39750              | 40185      | 40620    | 41055      | 41490    | MPR | Tune-up Limit | 39750              | 40185      | 40620    | 41055      | 41490    | MPR | Tune-up Limit |
|          |       |               |           | 2506 MHz           | 2549.5 MHz | 2593 MHz | 2636.5 MHz | 2680 MHz |     |               | 2506 MHz           | 2549.5 MHz | 2593 MHz | 2636.5 MHz | 2680 MHz |     |               |
| 20 MHz   | QPSK  | 1             | 0         | 24.89              | 24.98      | 25.19    | 24.93      | 24.81    | 0   | 25.50         | 24.92              | 24.83      | 24.86    | 24.31      | 24.87    | 0   | 25.00         |
|          |       | 1             | 49        | 25.00              | 25.47      | 25.47    | 25.16      | 25.04    | 0   | 25.50         | 25.00              | 24.90      | 24.97    | 24.93      | 25.00    | 0   | 25.00         |
|          |       | 1             | 99        | 24.94              | 24.98      | 25.08    | 24.65      | 24.83    | 0   | 25.50         | 24.83              | 24.87      | 24.91    | 24.88      | 24.94    | 0   | 25.00         |
|          |       | 50            | 0         | 23.75              | 23.99      | 24.10    | 23.82      | 23.71    | 1   | 24.50         | 23.77              | 23.82      | 23.52    | 23.96      | 23.89    | 0.5 | 24.50         |
|          |       | 50            | 24        | 24.00              | 24.34      | 24.44    | 24.08      | 24.04    | 1   | 24.50         | 24.30              | 24.00      | 24.00    | 24.30      | 24.35    | 0.5 | 24.50         |
|          |       | 50            | 50        | 23.77              | 24.03      | 24.11    | 23.62      | 23.73    | 1   | 24.50         | 23.71              | 23.83      | 23.92    | 23.96      | 23.91    | 0.5 | 24.50         |
|          |       | 100           | 0         | 24.00              | 24.33      | 24.41    | 24.07      | 24.00    | 1   | 24.50         | 24.20              | 24.00      | 24.20    | 24.00      | 24.20    | 0.5 | 24.50         |
|          | 16QAM | 1             | 0         | 24.01              | 24.16      | 24.22    | 23.99      | 23.92    | 1   | 24.50         | 23.52              | 23.92      | 23.93    | 23.89      | 23.93    | 0.5 | 24.50         |
|          |       | 1             | 49        | 23.77              | 24.19      | 24.10    | 23.77      | 23.74    | 1   | 24.50         | 23.87              | 23.93      | 23.89    | 23.98      | 23.50    | 0.5 | 24.50         |
|          |       | 1             | 99        | 24.02              | 24.08      | 24.13    | 23.75      | 23.94    | 1   | 24.50         | 23.89              | 23.93      | 23.50    | 23.80      | 23.99    | 0.5 | 24.50         |
|          |       | 50            | 0         | 22.72              | 23.06      | 23.14    | 22.89      | 22.78    | 2   | 23.50         | 22.79              | 22.86      | 22.55    | 23.00      | 22.94    | 1.5 | 23.50         |
|          |       | 50            | 24        | 22.64              | 23.08      | 23.14    | 22.81      | 22.72    | 2   | 23.50         | 22.70              | 22.90      | 22.98    | 22.94      | 22.98    | 1.5 | 23.50         |
|          |       | 50            | 50        | 22.80              | 23.04      | 23.13    | 22.68      | 22.74    | 2   | 23.50         | 22.79              | 22.90      | 22.95    | 22.96      | 22.97    | 1.5 | 23.50         |
|          |       | 100           | 0         | 22.66              | 23.05      | 23.12    | 22.78      | 22.69    | 2   | 23.50         | 22.67              | 22.88      | 22.96    | 22.92      | 22.95    | 1.5 | 23.50         |
|          | 64QAM | 1             | 0         | 22.88              | 23.04      | 23.03    | 22.88      | 22.80    | 2   | 23.50         | 22.97              | 22.80      | 22.54    | 22.64      | 22.57    | 1.5 | 23.50         |
|          |       | 1             | 49        | 22.65              | 23.05      | 23.05    | 22.75      | 22.76    | 2   | 23.50         | 22.61              | 22.82      | 22.98    | 22.96      | 22.52    | 1.5 | 23.50         |
|          |       | 1             | 99        | 22.89              | 23.01      | 23.05    | 22.64      | 22.87    | 2   | 23.50         | 22.66              | 22.82      | 22.99    | 22.63      | 22.59    | 1.5 | 23.50         |
|          |       | 50            | 0         | 21.75              | 22.11      | 22.14    | 21.92      | 21.83    | 3   | 22.50         | 21.79              | 21.83      | 21.56    | 21.63      | 21.73    | 2.5 | 22.50         |
|          |       | 50            | 24        | 22.10              | 22.12      | 22.17    | 21.85      | 21.79    | 3   | 22.50         | 21.64              | 21.87      | 21.51    | 21.59      | 21.77    | 2.5 | 22.50         |
|          |       | 50            | 50        | 21.81              | 22.10      | 22.14    | 21.74      | 21.84    | 3   | 22.50         | 21.70              | 21.86      | 21.97    | 21.63      | 21.74    | 2.5 | 22.50         |
|          |       | 100           | 0         | 21.66              | 22.08      | 22.14    | 21.83      | 21.75    | 3   | 22.50         | 21.61              | 21.83      | 21.96    | 21.57      | 21.75    | 2.5 | 22.50         |
| 15 MHz   | QPSK  | 1             | 0         | 24.83              | 25.01      | 25.10    | 24.85      | 24.76    | 0   | 25.50         | 24.88              | 24.76      | 24.34    | 24.95      | 24.86    | 0   | 25.00         |
|          |       | 1             | 37        | 24.69              | 25.02      | 25.08    | 24.77      | 24.69    | 0   | 25.50         | 24.69              | 24.80      | 24.95    | 24.87      | 24.95    | 0   | 25.00         |
|          |       | 1             | 74        | 24.86              | 24.95      | 25.11    | 24.61      | 24.78    | 0   | 25.50         | 24.76              | 24.77      | 24.82    | 24.91      | 24.90    | 0   | 25.00         |
|          |       | 36            | 0         | 23.64              | 24.00      | 24.08    | 23.81      | 23.76    | 1   | 24.50         | 23.70              | 23.78      | 23.51    | 23.92      | 23.93    | 0.5 | 24.50         |
|          |       | 36            | 20        | 23.64              | 24.06      | 24.13    | 23.77      | 23.75    | 1   | 24.50         | 23.71              | 23.85      | 23.98    | 23.90      | 23.98    | 0.5 | 24.50         |
|          |       | 36            | 39        | 23.76              | 24.03      | 24.10    | 23.68      | 23.79    | 1   | 24.50         | 23.74              | 23.83      | 23.95    | 23.94      | 23.95    | 0.5 | 24.50         |
|          |       | 75            | 0         | 23.62              | 24.03      | 24.10    | 23.76      | 23.66    | 1   | 24.50         | 23.66              | 23.81      | 23.95    | 23.90      | 23.92    | 0.5 | 24.50         |
|          | 16QAM | 1             | 0         | 23.82              | 23.84      | 23.96    | 23.80      | 23.52    | 1   | 24.50         | 23.51              | 23.85      | 23.86    | 23.95      | 23.90    | 0.5 | 24.50         |
|          |       | 1             | 37        | 23.58              | 23.83      | 24.03    | 23.70      | 23.58    | 1   | 24.50         | 23.81              | 23.90      | 23.97    | 23.85      | 23.51    | 0.5 | 24.50         |
|          |       | 1             | 74        | 23.82              | 23.81      | 24.04    | 23.54      | 23.54    | 1   | 24.50         | 23.90              | 23.54      | 23.53    | 23.54      | 23.92    | 0.5 | 24.50         |
|          |       | 36            | 0         | 22.69              | 23.08      | 23.12    | 22.86      | 22.78    | 2   | 23.50         | 22.74              | 22.82      | 22.54    | 22.50      | 22.95    | 1.5 | 23.50         |
|          |       | 36            | 20        | 22.68              | 23.14      | 23.15    | 22.82      | 22.77    | 2   | 23.50         | 22.75              | 22.90      | 22.82    | 22.98      | 22.52    | 1.5 | 23.50         |
|          |       | 36            | 39        | 22.81              | 23.12      | 23.12    | 22.71      | 22.81    | 2   | 23.50         | 22.79              | 22.87      | 22.97    | 22.99      | 22.99    | 1.5 | 23.50         |
|          |       | 75            | 0         | 22.64              | 23.11      | 23.12    | 22.77      | 22.73    | 2   | 23.50         | 22.66              | 22.85      | 22.98    | 22.94      | 22.97    | 1.5 | 23.50         |
|          | 64QAM | 1             | 0         | 22.73              | 22.90      | 23.04    | 22.83      | 22.69    | 2   | 23.50         | 22.87              | 22.73      | 22.94    | 22.61      | 22.62    | 1.5 | 23.50         |
|          |       | 1             | 37        | 22.69              | 22.95      | 23.08    | 22.72      | 22.67    | 2   | 23.50         | 22.62              | 22.72      | 22.88    | 22.54      | 22.69    | 1.5 | 23.50         |
|          |       | 1             | 74        | 22.82              | 22.90      | 23.06    | 22.59      | 22.77    | 2   | 23.50         | 22.62              | 22.72      | 22.79    | 22.61      | 22.59    | 1.5 | 23.50         |
|          |       | 36            | 0         | 21.65              | 22.11      | 22.10    | 21.87      | 21.83    | 3   | 22.50         | 21.74              | 21.83      | 21.54    | 21.68      | 21.73    | 2.5 | 22.50         |
|          |       | 36            | 20        | 21.62              | 22.16      | 22.17    | 21.83      | 21.83    | 3   | 22.50         | 21.73              | 21.90      | 21.51    | 21.66      | 21.79    | 2.5 | 22.50         |
|          |       | 36            | 39        | 21.75              | 22.13      | 22.13    | 21.73      | 21.89    | 3   | 22.50         | 21.74              | 21.87      | 21.99    | 21.71      | 21.75    | 2.5 | 22.50         |
|          |       | 75            | 0         | 21.61              | 22.07      | 22.13    | 21.80      | 21.79    | 3   | 22.50         | 21.64              | 21.84      | 21.96    | 21.63      | 21.75    | 2.5 | 22.50         |
| 10 MHz   | QPSK  | 1             | 0         | 24.72              | 24.99      | 25.08    | 24.80      | 24.80    | 0   | 25.50         | 24.86              | 24.80      | 25.00    | 24.96      | 24.89    | 0   | 25.00         |
|          |       | 1             | 25        | 24.60              | 25.04      | 25.12    | 24.73      | 24.76    | 0   | 25.50         | 24.95              | 24.82      | 24.93    | 24.91      | 24.92    | 0   | 25.00         |
|          |       | 1             | 49        | 24.80              | 25.05      | 25.12    | 24.68      | 24.79    | 0   | 25.50         | 24.90              | 24.82      | 24.92    | 24.95      | 24.93    | 0   | 25.00         |
|          |       | 25            | 0         | 23.61              | 24.09      | 24.08    | 23.83      | 23.69    | 1   | 24.50         | 23.93              | 23.85      | 23.51    | 23.94      | 23.93    | 0.5 | 24.50         |
|          |       | 25            | 12        | 23.64              | 24.06      | 24.12    | 23.79      | 23.73    | 1   | 24.50         | 23.98              | 23.85      | 23.98    | 23.92      | 23.92    | 0.5 | 24.50         |
|          |       | 25            | 25        | 23.75              | 24.06      | 24.12    | 23.70      | 23.73    | 1   | 24.50         | 23.95              | 23.85      | 23.96    | 23.99      | 23.92    | 0.5 | 24.50         |
|          |       | 50            | 0         | 23.63              | 24.07      | 24.13    | 23.79      | 23.76    | 1   | 24.50         | 23.92              | 23.85      | 23.98    | 23.92      | 23.95    | 0.5 | 24.50         |
|          | 16QAM | 1             | 0         | 23.78              | 23.87      | 24.06    | 23.87      | 23.60    | 1   | 24.50         | 23.90              | 23.85      | 23.52    | 23.95      | 23.96    | 0.5 | 24.50         |
|          |       | 1             | 25        | 23.58              | 23.85      | 23.98    | 23.81      | 23.54    | 1   | 24.50         | 23.51              | 23.90      | 24.00    | 23.87      | 23.97    | 0.5 | 24.50         |
|          |       | 1             | 49        | 23.70              | 23.89      | 24.06    | 23.70      | 23.62    | 1   | 24.50         | 23.92              | 23.91      | 23.97    | 23.96      | 23.97    | 0.5 | 24.50         |
|          |       | 25            | 0         | 22.62              | 23.10      | 23.11    | 22.87      | 22.73    | 2   | 23.50         | 23.09              | 22.91      | 22.55    | 22.51      | 22.52    | 1.5 | 23.50         |
|          |       | 25            | 12        | 22.64              | 23.07      | 23.14    | 22.81      | 22.77    | 2   | 23.50         | 22.52              | 22.90      | 22.50    | 22.97      | 23.00    | 1.5 | 23.50         |
|          |       | 25            | 25        | 22.75              | 23.08      | 23.12    | 22.75      | 22.76    | 2   | 23.50         | 22.99              | 22.90      | 22.61    | 22.51      | 22.50    | 1.5 | 23.50         |
|          |       | 50            | 0         | 22.64              | 23.09      | 23.16    | 22.81      | 22.78    | 2   | 23.50         | 22.97              | 22.88      | 22.51    | 22.97      | 22.50    | 1.5 | 23.50         |
|          | 64QAM | 1             | 0         | 22.63              | 22.97      | 23.11    | 22.78      | 22.69    | 2   | 23.50         | 22.72              | 22.72      | 22.98    | 22.56      | 22.68    | 1.5 | 23.50         |
|          |       | 1             | 25        | 22.68              | 22.98      | 23.14    | 22.62      | 22.63    | 2   | 23.50         | 22.54              | 22.74      | 22.89    | 22.96      | 22.76    | 1.5 | 23.50         |
|          |       | 1             | 49        | 22.73              | 22.99      | 23.08    | 22.53      | 22.66    | 2   | 23.50         | 22.63              | 22.79      | 22.90    | 22.51      | 22.71    | 1.5 | 23.50         |
|          |       | 25            | 0         | 21.62              | 22.13      | 22.14    | 21.89      | 21.72    | 3   | 22.50         | 21.73              | 21.87      | 21.60    | 21.66      | 21.83    | 2.5 | 22.50         |
|          |       | 25            | 12        | 21.67              | 22.11      | 22.15    | 21.85      | 21.75    | 3   | 22.50         | 21.78              | 21.86      | 21.56    | 21.63      | 21.82    | 2.5 | 22.50         |
|          |       | 25            | 25        | 21.77              | 22.11      | 22.14    | 21.76      | 21.75    | 3   | 22.50         | 21.74              | 21.87      | 21.56    | 21.70      | 21.80    | 2.5 | 22.50         |
|          |       | 50            | 0         | 21.67              | 22.13      | 22.17    | 21.86      | 21.77    | 3   | 22.50         | 21.71              | 21.86      | 21.59    | 21.65      | 21.82    | 2.5 | 22.50         |

**LTE Band 41 Power Class 3 Measured Results (ANT3) (continued)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |            |          |            |          |     |                  | Power Mode B (dBm) |            |          |            |          |     |                  |
|-------------|-------|------------------|--------------|--------------------|------------|----------|------------|----------|-----|------------------|--------------------|------------|----------|------------|----------|-----|------------------|
|             |       |                  |              | 39750              | 40185      | 40620    | 41055      | 41490    | MPR | Tune-up<br>Limit | 39750              | 40185      | 40620    | 41055      | 41490    | MPR | Tune-up<br>Limit |
|             |       |                  |              | 2506 MHz           | 2549.5 MHz | 2593 MHz | 2636.5 MHz | 2680 MHz |     |                  | 2506 MHz           | 2549.5 MHz | 2593 MHz | 2636.5 MHz | 2680 MHz |     |                  |
| 5 MHz       | QPSK  | 1                | 0            | 24.61              | 25.05      | 25.02    | 24.80      | 24.64    | 0   | 25.50            | 24.66              | 24.77      | 24.91    | 24.84      | 24.94    | 0   | 25.00            |
|             |       | 1                | 12           | 24.67              | 25.02      | 25.05    | 24.76      | 24.67    | 0   | 25.50            | 24.60              | 24.74      | 24.86    | 24.80      | 24.90    | 0   | 25.00            |
|             |       | 1                | 24           | 24.79              | 25.05      | 25.08    | 24.68      | 24.71    | 0   | 25.50            | 24.71              | 24.76      | 24.86    | 24.86      | 24.93    | 0   | 25.00            |
|             |       | 12               | 0            | 23.52              | 23.96      | 23.93    | 23.69      | 23.59    | 1   | 24.50            | 23.58              | 23.73      | 23.85    | 23.75      | 23.86    | 0.5 | 24.50            |
|             |       | 12               | 7            | 23.58              | 23.94      | 23.95    | 23.73      | 23.62    | 1   | 24.50            | 23.65              | 23.72      | 23.83    | 23.73      | 23.54    | 0.5 | 24.50            |
|             |       | 12               | 13           | 23.63              | 23.94      | 23.94    | 23.72      | 23.62    | 1   | 24.50            | 23.66              | 23.72      | 23.81    | 23.73      | 23.86    | 0.5 | 24.50            |
|             |       | 25               | 0            | 23.61              | 23.96      | 23.97    | 23.71      | 23.64    | 1   | 24.50            | 23.57              | 23.71      | 23.83    | 23.74      | 23.87    | 0.5 | 24.50            |
|             | 16QAM | 1                | 0            | 23.60              | 23.98      | 24.13    | 23.75      | 23.58    | 1   | 24.50            | 23.88              | 23.53      | 23.98    | 23.88      | 23.54    | 0.5 | 24.50            |
|             |       | 1                | 12           | 23.60              | 23.90      | 24.04    | 23.67      | 23.58    | 1   | 24.50            | 23.77              | 23.97      | 24.00    | 23.86      | 23.87    | 0.5 | 24.50            |
|             |       | 1                | 24           | 23.71              | 23.95      | 24.13    | 23.65      | 23.66    | 1   | 24.50            | 23.82              | 23.95      | 23.99    | 23.93      | 23.98    | 0.5 | 24.50            |
|             |       | 12               | 0            | 22.68              | 22.92      | 22.89    | 22.74      | 22.55    | 2   | 23.50            | 22.55              | 22.71      | 22.82    | 22.76      | 22.87    | 1.5 | 23.50            |
|             |       | 12               | 7            | 22.53              | 22.90      | 22.93    | 22.68      | 22.60    | 2   | 23.50            | 22.61              | 22.70      | 22.80    | 22.74      | 22.87    | 1.5 | 23.50            |
|             |       | 12               | 13           | 22.59              | 22.89      | 22.93    | 22.68      | 22.61    | 2   | 23.50            | 22.61              | 22.67      | 22.79    | 22.74      | 22.86    | 1.5 | 23.50            |
|             |       | 25               | 0            | 22.51              | 22.93      | 22.95    | 22.64      | 22.64    | 2   | 23.50            | 22.53              | 22.66      | 22.80    | 22.74      | 22.87    | 1.5 | 23.50            |
|             | 64QAM | 1                | 0            | 22.54              | 23.10      | 23.06    | 22.80      | 22.67    | 2   | 23.50            | 22.58              | 22.77      | 22.94    | 22.57      | 22.75    | 1.5 | 23.50            |
|             |       | 1                | 12           | 22.59              | 23.04      | 23.07    | 22.68      | 22.68    | 2   | 23.50            | 22.56              | 22.72      | 22.96    | 22.52      | 22.67    | 1.5 | 23.50            |
|             |       | 1                | 24           | 22.66              | 23.05      | 23.03    | 22.67      | 22.73    | 2   | 23.50            | 22.60              | 22.77      | 22.96    | 22.60      | 22.68    | 1.5 | 23.50            |
|             |       | 12               | 0            | 21.69              | 21.87      | 21.97    | 21.73      | 21.58    | 3   | 22.50            | 21.54              | 21.71      | 21.81    | 21.93      | 21.57    | 2.5 | 22.50            |
|             |       | 12               | 7            | 21.55              | 21.93      | 21.97    | 21.72      | 21.57    | 3   | 22.50            | 21.56              | 21.68      | 21.80    | 21.90      | 21.62    | 2.5 | 22.50            |
|             |       | 12               | 13           | 21.59              | 21.88      | 21.99    | 21.69      | 21.58    | 3   | 22.50            | 21.56              | 21.67      | 21.80    | 21.87      | 21.59    | 2.5 | 22.50            |
|             |       | 25               | 0            | 21.53              | 21.94      | 22.02    | 21.67      | 21.59    | 3   | 22.50            | 21.56              | 21.65      | 21.83    | 21.91      | 21.65    | 2.5 | 22.50            |

**LTE Band 41 Power Class 3 Measured Results (ANT4)**

| BW<br>(MHz) | Mode        | RB<br>Allocation | RB<br>offset     | Power Mode A (dBm) |                    |            |            |            |          |                  | Power Mode B (dBm) |                    |            |            |            |          |                  |                  |
|-------------|-------------|------------------|------------------|--------------------|--------------------|------------|------------|------------|----------|------------------|--------------------|--------------------|------------|------------|------------|----------|------------------|------------------|
|             |             |                  |                  | 39750              | 40185              | 40620      | 41055      | 41490      | MFR      | Tune-up<br>Limit | 39750              | 40185              | 40620      | 41055      | 41490      | MFR      | Tune-up<br>Limit |                  |
|             |             |                  |                  | 2506 MHz           | 2549.5 MHz         | 2593 MHz   | 2636.5 MHz | 2680 MHz   |          |                  | 2506 MHz           | 2549.5 MHz         | 2593 MHz   | 2636.5 MHz | 2680 MHz   |          |                  |                  |
| 20 MHz      | QPSK        | 1                | 0                | 18.80              | 18.47              | 18.68      | 19.05      | 18.89      | 0        | 19.25            | 20.64              | 20.22              | 20.50      | 20.88      | 20.70      | 0        | 21.00            |                  |
|             |             | 1                | 49               | 18.90              | 18.90              | 19.10      | 19.10      | 18.90      | 0        | 19.25            | 20.70              | 20.50              | 20.60      | 20.90      | 20.70      | 0        | 21.00            |                  |
|             |             | 1                | 99               | 18.69              | 18.28              | 19.01      | 19.05      | 18.60      | 0        | 19.25            | 20.45              | 20.01              | 20.60      | 20.72      | 20.67      | 0        | 21.00            |                  |
|             |             | 50               | 0                | 18.73              | 18.43              | 18.78      | 19.05      | 18.80      | 0        | 19.25            | 20.56              | 20.17              | 20.50      | 20.90      | 20.70      | 0        | 21.00            |                  |
|             |             | 50               | 24               | 18.80              | 18.80              | 19.10      | 19.10      | 19.20      | 0        | 19.25            | 20.60              | 20.50              | 20.60      | 20.80      | 20.70      | 0        | 21.00            |                  |
|             |             | 50               | 50               | 18.76              | 18.27              | 18.94      | 18.95      | 18.63      | 0        | 19.25            | 20.51              | 20.00              | 20.50      | 20.75      | 20.70      | 0        | 21.00            |                  |
|             |             | 100              | 0                | 18.67              | 18.80              | 19.10      | 19.10      | 19.10      | 0        | 19.25            | 20.50              | 20.50              | 20.60      | 20.60      | 20.50      | 0        | 21.00            |                  |
|             |             | 1                | 0                | 18.90              | 18.63              | 18.70      | 19.08      | 19.03      | 0        | 19.25            | 20.74              | 20.37              | 20.75      | 20.96      | 20.92      | 0        | 21.00            |                  |
|             | 16QAM       | 1                | 49               | 18.81              | 18.51              | 18.83      | 19.02      | 18.80      | 0        | 19.25            | 20.58              | 20.30              | 20.81      | 20.89      | 20.81      | 0        | 21.00            |                  |
|             |             | 1                | 99               | 18.82              | 18.47              | 19.06      | 19.15      | 18.72      | 0        | 19.25            | 20.56              | 20.25              | 20.90      | 20.80      | 20.79      | 0        | 21.00            |                  |
|             |             | 50               | 0                | 18.85              | 18.49              | 18.80      | 19.00      | 18.82      | 0        | 19.25            | 19.86              | 19.51              | 19.74      | 19.93      | 19.86      | 0.5      | 20.50            |                  |
|             |             | 50               | 24               | 18.77              | 18.42              | 18.88      | 18.98      | 18.68      | 0        | 19.25            | 19.78              | 19.54              | 19.75      | 19.88      | 19.83      | 0.5      | 20.50            |                  |
|             |             | 50               | 50               | 18.82              | 18.32              | 19.01      | 18.99      | 18.66      | 0        | 19.25            | 19.81              | 19.57              | 19.78      | 19.82      | 19.82      | 0.5      | 20.50            |                  |
|             |             | 100              | 0                | 18.72              | 18.38              | 18.84      | 18.95      | 18.71      | 0        | 19.25            | 19.72              | 19.50              | 19.72      | 19.86      | 19.80      | 0.5      | 20.50            |                  |
|             |             | 1                | 0                | 19.19              | 18.78              | 18.66      | 19.06      | 18.93      | 0        | 19.25            | 20.24              | 19.77              | 19.84      | 20.02      | 19.93      | 0.5      | 20.50            |                  |
|             |             | 1                | 49               | 18.98              | 18.73              | 18.69      | 18.97      | 18.81      | 0        | 19.25            | 19.86              | 19.76              | 19.82      | 19.90      | 19.81      | 0.5      | 20.50            |                  |
|             | 64QAM       | 1                | 99               | 18.91              | 18.78              | 18.76      | 18.90      | 18.80      | 0        | 19.25            | 19.89              | 19.78              | 19.95      | 19.92      | 19.76      | 0.5      | 20.50            |                  |
|             |             | 50               | 0                | 19.12              | 18.61              | 18.77      | 18.96      | 18.84      | 0        | 19.25            | 19.05              | 18.62              | 18.85      | 19.05      | 18.87      | 1.5      | 19.50            |                  |
|             |             | 50               | 24               | 18.98              | 18.63              | 18.81      | 18.91      | 18.82      | 0        | 19.25            | 18.94              | 18.67              | 18.89      | 18.99      | 18.81      | 1.5      | 19.50            |                  |
|             |             | 50               | 50               | 18.94              | 18.72              | 18.81      | 18.79      | 18.80      | 0        | 19.25            | 18.90              | 18.74              | 18.92      | 18.88      | 18.81      | 1.5      | 19.50            |                  |
|             |             | 100              | 0                | 18.91              | 18.58              | 18.79      | 18.88      | 18.81      | 0        | 19.25            | 18.87              | 18.63              | 18.88      | 18.87      | 18.81      | 1.5      | 19.50            |                  |
| BW<br>(MHz) |             | Mode             | RB<br>Allocation | RB<br>offset       | Power Mode A (dBm) |            |            |            |          |                  |                    | Power Mode B (dBm) |            |            |            |          |                  |                  |
|             |             |                  |                  |                    | 39750 MHz          | 40185      | 40620      | 41055      | 41490    | MFR              | Tune-up<br>Limit   | 39750              | 40185      | 40620      | 41055      | 41490    | MFR              | Tune-up<br>Limit |
|             |             |                  |                  |                    | 2506 MHz           | 2549.5 MHz | 2593 MHz   | 2636.5 MHz | 2680 MHz |                  |                    | 2506 MHz           | 2549.5 MHz | 2593 MHz   | 2636.5 MHz | 2680 MHz |                  |                  |
|             | 15 MHz      | QPSK             | 1                | 0                  | 18.88              | 18.39      | 18.70      | 18.99      | 18.82    | 0                | 19.25              | 20.58              | 20.17      | 20.70      | 20.89      | 20.78    | 0                | 21.00            |
|             |             |                  | 1                | 37                 | 18.69              | 18.31      | 18.82      | 18.97      | 18.64    | 0                | 19.25              | 20.42              | 20.14      | 20.76      | 20.86      | 20.73    | 0                | 21.00            |
|             |             |                  | 1                | 74                 | 18.63              | 18.31      | 18.94      | 18.91      | 18.55    | 0                | 19.25              | 20.42              | 20.15      | 20.80      | 20.78      | 20.68    | 0                | 21.00            |
|             |             |                  | 36               | 0                  | 18.75              | 18.44      | 18.76      | 18.99      | 18.76    | 0                | 19.25              | 20.46              | 20.23      | 20.72      | 20.91      | 20.79    | 0                | 21.00            |
|             |             |                  | 36               | 20                 | 18.69              | 18.40      | 18.82      | 18.97      | 18.66    | 0                | 19.25              | 20.43              | 20.16      | 20.78      | 20.89      | 20.74    | 0                | 21.00            |
|             |             |                  | 36               | 39                 | 18.71              | 18.37      | 18.83      | 18.99      | 18.60    | 0                | 19.25              | 20.46              | 20.13      | 20.80      | 20.79      | 20.69    | 0                | 21.00            |
|             |             |                  | 75               | 0                  | 18.67              | 18.36      | 18.80      | 18.93      | 18.69    | 0                | 19.25              | 20.39              | 20.12      | 20.75      | 20.87      | 20.75    | 0                | 21.00            |
|             |             |                  | 1                | 0                  | 18.85              | 18.36      | 18.63      | 19.01      | 18.90    | 0                | 19.25              | 20.60              | 20.18      | 20.68      | 20.92      | 20.75    | 0                | 21.00            |
|             |             | 16QAM            | 1                | 37                 | 18.71              | 18.34      | 18.76      | 18.98      | 18.69    | 0                | 19.25              | 20.44              | 20.08      | 20.79      | 20.87      | 20.71    | 0                | 21.00            |
|             |             |                  | 1                | 74                 | 18.66              | 18.29      | 18.87      | 18.95      | 18.63    | 0                | 19.25              | 20.39              | 20.20      | 20.78      | 20.74      | 20.67    | 0                | 21.00            |
|             |             |                  | 36               | 0                  | 18.74              | 18.42      | 18.76      | 19.03      | 18.84    | 0                | 19.25              | 19.75              | 19.51      | 19.73      | 19.99      | 19.82    | 0.5              | 20.50            |
|             |             |                  | 36               | 20                 | 18.77              | 18.39      | 18.89      | 19.00      | 18.73    | 0                | 19.25              | 19.72              | 19.54      | 19.78      | 19.97      | 19.82    | 0.5              | 20.50            |
| 36          |             |                  | 39               | 18.78              | 18.36              | 18.90      | 19.03      | 18.63      | 0        | 19.25            | 19.75              | 19.52              | 19.81      | 19.86      | 19.73      | 0.5      | 20.50            |                  |
| 75          |             |                  | 0                | 18.72              | 18.36              | 18.87      | 18.97      | 18.65      | 0        | 19.25            | 19.69              | 19.51              | 19.74      | 19.93      | 19.76      | 0.5      | 20.50            |                  |
| 1           |             |                  | 0                | 19.13              | 18.57              | 18.80      | 18.91      | 18.70      | 0        | 19.25            | 20.13              | 19.61              | 19.72      | 19.97      | 19.78      | 0.5      | 20.50            |                  |
| 1           |             |                  | 37               | 18.91              | 18.66              | 18.80      | 18.81      | 18.68      | 0        | 19.25            | 19.90              | 19.65              | 19.77      | 19.88      | 19.76      | 0.5      | 20.50            |                  |
| 64QAM       |             | 1                | 74               | 18.89              | 18.62              | 18.82      | 18.75      | 18.61      | 0        | 19.25            | 19.89              | 19.69              | 19.82      | 19.75      | 19.61      | 0.5      | 20.50            |                  |
|             |             | 36               | 0                | 18.97              | 18.64              | 18.74      | 18.86      | 18.80      | 0        | 19.25            | 19.03              | 18.64              | 18.84      | 18.94      | 18.90      | 1.5      | 19.50            |                  |
|             |             | 36               | 20               | 18.87              | 18.70              | 18.80      | 18.84      | 18.83      | 0        | 19.25            | 18.92              | 18.73              | 18.87      | 18.92      | 18.90      | 1.5      | 19.50            |                  |
|             |             | 36               | 39               | 18.82              | 18.66              | 18.82      | 18.73      | 18.77      | 0        | 19.25            | 18.91              | 18.71              | 18.92      | 18.82      | 18.85      | 1.5      | 19.50            |                  |
|             |             | 75               | 0                | 18.83              | 18.63              | 18.78      | 18.80      | 18.80      | 0        | 19.25            | 18.87              | 18.69              | 18.84      | 18.89      | 18.83      | 1.5      | 19.50            |                  |
|             | BW<br>(MHz) | Mode             | RB<br>Allocation | RB<br>offset       | Power Mode A (dBm) |            |            |            |          |                  |                    | Power Mode B (dBm) |            |            |            |          |                  |                  |
|             |             |                  |                  |                    | 39750              | 40185      | 40620      | 41055      | 41490    | MFR              | Tune-up<br>Limit   | 39750              | 40185      | 40620      | 41055      | 41490    | MFR              | Tune-up<br>Limit |
|             |             |                  |                  |                    | 2506 MHz           | 2549.5 MHz | 2593 MHz   | 2636.5 MHz | 2680 MHz |                  |                    | 2506 MHz           | 2549.5 MHz | 2593 MHz   | 2636.5 MHz | 2680 MHz |                  |                  |
| 10 MHz      |             | QPSK             | 1                | 0                  | 18.88              | 18.43      | 18.79      | 18.92      | 18.77    | 0                | 19.25              | 20.57              | 20.22      | 20.71      | 20.86      | 20.88    | 0                | 21.00            |
|             |             |                  | 1                | 25                 | 18.74              | 18.34      | 18.85      | 18.87      | 18.64    | 0                | 19.25              | 20.46              | 20.11      | 20.74      | 20.81      | 20.80    | 0                | 21.00            |
|             |             |                  | 1                | 49                 | 18.82              | 18.30      | 18.98      | 18.88      | 18.67    | 0                | 19.25              | 20.53              | 20.07      | 20.78      | 20.72      | 20.84    | 0                | 21.00            |
|             |             |                  | 25               | 0                  | 18.78              | 18.37      | 18.84      | 18.90      | 18.70    | 0                | 19.25              | 20.50              | 20.12      | 20.73      | 20.88      | 20.86    | 0                | 21.00            |
|             |             |                  | 25               | 12                 | 18.78              | 18.36      | 18.85      | 18.87      | 18.65    | 0                | 19.25              | 20.49              | 20.09      | 20.73      | 20.86      | 20.81    | 0                | 21.00            |
|             |             |                  | 25               | 25                 | 18.82              | 18.36      | 18.85      | 18.93      | 18.63    | 0                | 19.25              | 20.52              | 20.09      | 20.79      | 20.78      | 20.79    | 0                | 21.00            |
|             |             |                  | 50               | 0                  | 18.81              | 18.36      | 18.82      | 18.88      | 18.66    | 0                | 19.25              | 20.49              | 20.10      | 20.76      | 20.81      | 20.82    | 0                | 21.00            |
|             |             |                  | 1                | 0                  | 18.93              | 18.51      | 18.72      | 19.01      | 18.71    | 0                | 19.25              | 20.70              | 20.19      | 20.82      | 20.92      | 20.77    | 0                | 21.00            |
|             |             | 16QAM            | 1                | 25                 | 18.79              | 18.45      | 18.78      | 18.97      | 18.59    | 0                | 19.25              | 20.54              | 20.03      | 20.81      | 20.86      | 20.69    | 0                | 21.00            |
|             |             |                  | 1                | 49                 | 18.87              | 18.37      | 18.85      | 18.97      | 18.63    | 0                | 19.25              | 20.63              | 20.20      | 20.88      | 20.77      | 20.72    | 0                | 21.00            |
|             |             |                  | 25               | 0                  | 18.77              | 18.43      | 18.79      | 18.95      | 18.74    | 0                | 19.25              | 19.80              | 19.52      | 19.82      | 19.95      | 19.90    | 0.5              | 20.50            |
|             |             |                  | 25               | 12                 | 18.78              | 18.43      | 18.84      | 18.93      | 18.68    | 0                | 19.25              | 19.79              | 19.53      | 19.80      | 19.91      | 19.83    | 0.5              | 20.50            |
|             | 25          |                  | 25               | 18.81              | 18.43              | 18.86      | 18.97      | 18.65      | 0        | 19.25            | 19.82              | 19.54              | 19.86      | 19.81      | 19.81      | 0.5      | 20.50            |                  |
|             | 50          |                  | 0                | 18.78              | 18.42              | 18.84      | 18.92      | 18.70      | 0        | 19.25            | 19.78              | 19.57              | 19.79      | 19.91      | 19.86      | 0.5      | 20.50            |                  |
|             | 1           |                  | 0                | 19.07              | 18.61              | 18.83      | 18.95      | 18.79      | 0        | 19.25            | 20.13              | 19.59              | 19.87      | 20.04      | 19.86      | 0.5      | 20.50            |                  |
|             | 1           |                  | 25               | 18.88              | 18.62              | 18.71      | 18.87      | 18.75      | 0        | 19.25            | 19.87              | 19.63              | 19.75      | 19.99      | 19.74      | 0.5      | 20.50            |                  |
|             | 64QAM       | 1                | 49               | 18.98              | 18.67              | 18.78      | 18.79      | 18.72      | 0        | 19.25            | 19.94              | 19.69              | 19.82      | 19.88      | 19.78      | 0.5      | 20.50            |                  |
|             |             | 25               | 0                | 18.92              | 18.65              | 18.80      | 18.90      | 18.84      | 0        | 19.25            | 18.93              | 18.72              | 18.91      | 19.00      | 18.90      | 1.5      | 19.50            |                  |
|             |             | 25               | 12               | 18.88              | 18.63              | 18.78      | 18.87      | 18.75      | 0        | 19.25            | 18.95              | 18.70              | 18.88      | 18.96      | 18.85      | 1.5      | 19.50            |                  |
|             |             | 25               | 25               | 18.92              | 18.63              | 18.85      | 18.81      | 18.73      | 0        | 19.25            | 18.99              | 18.70              | 18.90      | 18.85      | 18.82      | 1.5      | 19.50            |                  |
|             |             | 50               | 0                | 18.89              | 18.64              | 18.82      | 18.87      | 18.78      | 0        | 19.25            | 18.97              | 18.70              | 18.87      | 18.92      | 18.86      | 1.5      | 19.50            |                  |
| BW<br>(MHz) |             | Mode             | RB<br>Allocation | RB<br>offset       | Power Mode A (dBm) |            |            |            |          |                  |                    | Power Mode B (dBm) |            |            |            |          |                  |                  |
|             |             |                  |                  |                    | 39750              | 40185      | 40620      | 41055      | 41490    | MFR              | Tune-up<br>Limit   | 39750              | 40185      | 40620      | 41055      | 41490    | MFR              | Tune-up<br>Limit |
|             |             |                  |                  |                    | 2506 MHz           | 2549.5 MHz | 2593 MHz   | 2636.5 MHz | 2680 MHz |                  |                    | 2506 MHz           | 2549.5 MHz | 2593 MHz   | 2636.5 MHz | 2680 MHz |                  |                  |
|             | 5 MHz       | QPSK             | 1                | 0                  | 18.88              | 18.43      | 18.79      | 18.92      | 18.77    | 0                | 19.25              | 20.57              | 20.22      | 20.71      | 20.86      | 20.88    | 0                | 21.00            |
|             |             |                  | 1                | 25                 | 18.74              | 18.34      | 18.85      | 18.87      | 18.64    | 0                | 19.25              | 20.46              | 20.11      | 20.74      | 20.81      | 20.80    | 0                | 21.00            |
|             |             |                  | 1                | 49                 | 18.82              | 18.30      | 18.98      | 18.88      | 18.67    | 0                | 19.25              | 20.53              | 20.07      | 20.78      | 20.72      | 20.84    | 0                | 21.00            |
|             |             |                  | 25               | 0                  | 18.78              | 18.37      | 18.84      | 18.90      | 18.70    | 0                | 19.25              | 20.50              | 20.12      | 20.73      | 20.88      | 20.86    | 0                | 21.00            |
|             |             |                  | 25               | 12                 | 18.78              | 18.36      | 18.85      | 18.87      | 18.65    | 0                | 19.25              | 20.49              | 20.09      | 20.73      | 20.86      | 20.81    | 0                | 21.00            |
|             |             |                  | 25               | 25                 | 18.82              | 18.36      | 18.85      | 18.93      | 18.63    | 0                | 19.25              | 20.52              | 20.09      | 20.79      | 20.78      | 20.79    | 0                | 21.00            |
|             |             |                  | 50               | 0                  | 18.81              | 18.36</    |            |            |          |                  |                    |                    |            |            |            |          |                  |                  |

**LTE Band 41 Power Class 3 Measured Results (ANT4) (continued)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |            |          |            |          |     | Power Mode B (dBm) |          |            |          |            |          |
|-------------|-------|------------------|--------------|--------------------|------------|----------|------------|----------|-----|--------------------|----------|------------|----------|------------|----------|
|             |       |                  |              | 39750              | 40185      | 40620    | 41055      | 41490    | MPR | Tune-up<br>Limit   | 39750    | 40185      | 40620    | 41055      | 41490    |
|             |       |                  |              | 2506 MHz           | 2549.5 MHz | 2593 MHz | 2636.5 MHz | 2680 MHz |     |                    | 2506 MHz | 2549.5 MHz | 2593 MHz | 2636.5 MHz | 2680 MHz |
| 5 MHz       | QPSK  | 1                | 0            | 18.73              | 18.41      | 18.82    | 18.95      | 18.77    | 0   | 19.25              | 20.41    | 20.09      | 20.75    | 20.65      | 20.80    |
|             |       | 1                | 12           | 18.67              | 18.47      | 18.82    | 18.89      | 18.65    | 0   | 19.25              | 20.40    | 20.04      | 20.74    | 20.62      | 20.74    |
|             |       | 1                | 24           | 18.71              | 18.57      | 18.91    | 18.95      | 18.66    | 0   | 19.25              | 20.48    | 20.06      | 20.83    | 20.66      | 20.70    |
|             |       | 12               | 0            | 18.58              | 18.31      | 18.71    | 18.85      | 18.63    | 0   | 19.25              | 20.35    | 20.20      | 20.67    | 20.54      | 20.69    |
|             |       | 12               | 7            | 18.60              | 18.37      | 18.74    | 18.83      | 18.56    | 0   | 19.25              | 20.37    | 20.20      | 20.65    | 20.52      | 20.67    |
|             |       | 12               | 13           | 18.62              | 18.37      | 18.74    | 18.82      | 18.55    | 0   | 19.25              | 20.39    | 20.19      | 20.65    | 20.50      | 20.65    |
|             |       | 25               | 0            | 18.62              | 18.38      | 18.77    | 18.81      | 18.60    | 0   | 19.25              | 20.36    | 20.20      | 20.67    | 20.53      | 20.67    |
|             | 16QAM | 1                | 0            | 18.82              | 18.47      | 18.96    | 18.94      | 18.65    | 0   | 19.25              | 20.43    | 20.27      | 20.75    | 20.78      | 20.81    |
|             |       | 1                | 12           | 18.72              | 18.47      | 18.99    | 18.88      | 18.63    | 0   | 19.25              | 20.39    | 20.19      | 20.75    | 20.73      | 20.69    |
|             |       | 1                | 24           | 18.77              | 18.56      | 19.08    | 18.98      | 18.58    | 0   | 19.25              | 20.44    | 20.21      | 20.80    | 20.74      | 20.71    |
|             |       | 12               | 0            | 18.57              | 18.37      | 18.73    | 18.86      | 18.61    | 0   | 19.25              | 19.54    | 19.50      | 19.70    | 19.79      | 19.73    |
|             |       | 12               | 7            | 18.56              | 18.33      | 18.75    | 18.83      | 18.58    | 0   | 19.25              | 19.57    | 19.68      | 19.65    | 19.78      | 19.65    |
|             |       | 12               | 13           | 18.58              | 18.32      | 18.72    | 18.82      | 18.53    | 0   | 19.25              | 19.58    | 19.69      | 19.64    | 19.73      | 19.66    |
|             |       | 25               | 0            | 18.58              | 18.32      | 18.71    | 18.81      | 18.55    | 0   | 19.25              | 19.59    | 19.68      | 19.65    | 19.76      | 19.66    |
|             | 64QAM | 1                | 0            | 18.83              | 18.62      | 18.78    | 19.21      | 18.87    | 0   | 19.25              | 20.25    | 20.24      | 19.59    | 19.69      | 19.81    |
|             |       | 1                | 12           | 19.24              | 18.55      | 18.79    | 19.15      | 18.81    | 0   | 19.25              | 19.92    | 19.77      | 19.90    | 19.62      | 19.74    |
|             |       | 1                | 24           | 19.18              | 18.53      | 18.75    | 19.07      | 18.81    | 0   | 19.25              | 19.90    | 19.77      | 19.83    | 19.70      | 19.65    |
|             |       | 12               | 0            | 19.17              | 18.71      | 18.87    | 19.06      | 18.94    | 0   | 19.25              | 19.48    | 18.60      | 19.44    | 18.88      | 19.40    |
|             |       | 12               | 7            | 19.15              | 18.66      | 18.84    | 19.01      | 18.85    | 0   | 19.25              | 19.43    | 18.58      | 19.41    | 18.90      | 19.42    |
|             |       | 12               | 13           | 19.11              | 18.64      | 18.80    | 19.00      | 18.86    | 0   | 19.25              | 19.40    | 18.58      | 19.38    | 18.86      | 19.36    |
|             |       | 25               | 0            | 19.17              | 18.63      | 18.85    | 19.02      | 18.85    | 0   | 19.25              | 18.87    | 18.62      | 18.83    | 18.50      | 18.79    |

**LTE Band 48 Measured Results (ANT1)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |            |            |          |     |                  | Power Mode B (dBm) |            |            |          |     |                  |
|-------------|-------|------------------|--------------|--------------------|------------|------------|----------|-----|------------------|--------------------|------------|------------|----------|-----|------------------|
|             |       |                  |              | 55340              | 55773      | 56207      | 56640    | MPR | Tune-up<br>Limit | 55340              | 55773      | 56207      | 56640    | MPR | Tune-up<br>Limit |
|             |       |                  |              | 3560 MHz           | 3603.3 MHz | 3646.7 MHz | 3690 MHz |     |                  | 3560 MHz           | 3603.3 MHz | 3646.7 MHz | 3690 MHz |     |                  |
| 20 MHz      | QPSK  | 1                | 0            | 25.52              | 25.05      | 25.05      | 25.53    | 0   | 25.70            | 23.97              | 23.96      | 23.99      | 23.90    | 0   | 24.00            |
|             |       | 1                | 49           | 25.55              | 25.34      | 25.40      | 25.66    | 0   | 25.70            | 23.98              | 24.00      | 24.00      | 23.90    | 0   | 24.00            |
|             |       | 1                | 99           | 25.42              | 25.14      | 25.08      | 25.50    | 0   | 25.70            | 23.95              | 23.95      | 23.97      | 23.90    | 0   | 24.00            |
|             |       | 50               | 0            | 24.45              | 24.41      | 24.35      | 24.40    | 1   | 24.70            | 23.72              | 23.60      | 23.60      | 23.97    | 0   | 24.00            |
|             |       | 50               | 24           | 24.50              | 24.50      | 24.50      | 24.40    | 1   | 24.70            | 24.00              | 23.60      | 23.60      | 24.00    | 0   | 24.00            |
|             |       | 50               | 50           | 24.50              | 24.44      | 24.39      | 24.40    | 1   | 24.70            | 23.97              | 23.60      | 23.60      | 23.84    | 0   | 24.00            |
|             | 16QAM | 100              | 0            | 24.58              | 24.58      | 24.58      | 24.49    | 1   | 24.70            | 24.00              | 24.00      | 24.00      | 24.00    | 0   | 24.00            |
|             |       | 1                | 0            | 24.58              | 24.24      | 24.25      | 24.47    | 1   | 24.70            | 23.94              | 23.95      | 23.97      | 23.87    | 0   | 24.00            |
|             |       | 1                | 49           | 24.42              | 24.02      | 24.49      | 24.65    | 1   | 24.70            | 23.90              | 23.78      | 23.71      | 23.80    | 0   | 24.00            |
|             |       | 1                | 99           | 24.58              | 24.30      | 24.27      | 24.61    | 1   | 24.70            | 23.93              | 23.76      | 23.91      | 23.76    | 0   | 24.00            |
|             |       | 50               | 0            | 23.45              | 23.39      | 23.34      | 23.69    | 2   | 23.70            | 23.47              | 23.39      | 23.34      | 23.43    | 0.3 | 23.70            |
|             |       | 50               | 24           | 23.43              | 23.37      | 23.31      | 23.46    | 2   | 23.70            | 23.50              | 23.36      | 23.31      | 23.44    | 0.3 | 23.70            |
|             | 64QAM | 50               | 50           | 23.64              | 23.40      | 23.37      | 23.59    | 2   | 23.70            | 23.39              | 23.38      | 23.37      | 23.56    | 0.3 | 23.70            |
|             |       | 100              | 0            | 23.54              | 23.49      | 23.39      | 23.62    | 2   | 23.70            | 23.62              | 23.47      | 23.38      | 23.59    | 0.3 | 23.70            |
|             |       | 1                | 0            | 23.43              | 23.43      | 23.41      | 23.41    | 2   | 23.70            | 23.65              | 23.57      | 23.66      | 23.50    | 0.3 | 23.70            |
|             |       | 1                | 49           | 23.28              | 23.13      | 23.19      | 23.22    | 2   | 23.70            | 23.63              | 23.37      | 23.70      | 23.43    | 0.3 | 23.70            |
|             |       | 1                | 99           | 23.43              | 23.30      | 23.39      | 23.55    | 2   | 23.70            | 23.68              | 23.63      | 23.58      | 23.28    | 0.3 | 23.70            |
|             |       | 50               | 0            | 22.09              | 22.67      | 22.10      | 22.35    | 3   | 22.70            | 22.48              | 22.65      | 22.64      | 22.42    | 1.3 | 22.70            |
| 15 MHz      | QPSK  | 50               | 24           | 22.11              | 22.60      | 22.04      | 22.31    | 3   | 22.70            | 22.50              | 22.69      | 22.60      | 22.46    | 1.3 | 22.70            |
|             |       | 50               | 50           | 22.11              | 22.58      | 22.01      | 22.36    | 3   | 22.70            | 22.41              | 22.23      | 22.66      | 22.58    | 1.3 | 22.70            |
|             |       | 100              | 0            | 22.26              | 22.01      | 22.16      | 22.45    | 3   | 22.70            | 22.62              | 22.29      | 22.52      | 22.61    | 1.3 | 22.70            |
|             | 16QAM | 1                | 0            | 25.40              | 25.02      | 25.45      | 25.48    | 0   | 25.70            | 23.92              | 23.99      | 23.92      | 23.97    | 0   | 24.00            |
|             |       | 1                | 37           | 25.68              | 25.42      | 25.35      | 25.49    | 0   | 25.70            | 23.97              | 23.93      | 23.86      | 23.96    | 0   | 24.00            |
|             |       | 1                | 74           | 25.46              | 25.02      | 25.48      | 25.59    | 0   | 25.70            | 23.99              | 23.90      | 23.99      | 24.00    | 0   | 24.00            |
|             |       | 36               | 0            | 24.65              | 24.37      | 24.31      | 24.46    | 1   | 24.70            | 23.86              | 23.84      | 23.80      | 24.00    | 0   | 24.00            |
|             |       | 36               | 20           | 24.68              | 24.36      | 24.31      | 24.53    | 1   | 24.70            | 23.94              | 23.84      | 23.80      | 23.06    | 0   | 24.00            |
|             |       | 36               | 39           | 24.67              | 24.36      | 24.30      | 24.54    | 1   | 24.70            | 23.93              | 23.83      | 23.79      | 23.08    | 0   | 24.00            |
|             | 64QAM | 75               | 0            | 24.45              | 24.42      | 24.34      | 24.56    | 1   | 24.70            | 23.95              | 23.89      | 23.82      | 23.14    | 0   | 24.00            |
|             |       | 1                | 0            | 24.44              | 24.49      | 24.42      | 24.47    | 1   | 24.70            | 23.99              | 23.94      | 23.90      | 23.06    | 0   | 24.00            |
|             |       | 1                | 37           | 24.48              | 24.46      | 24.36      | 24.51    | 1   | 24.70            | 23.81              | 23.96      | 23.86      | 23.13    | 0   | 24.00            |
|             |       | 1                | 74           | 24.53              | 24.53      | 24.46      | 24.63    | 1   | 24.70            | 23.90              | 23.88      | 23.98      | 23.19    | 0   | 24.00            |
|             |       | 36               | 0            | 23.55              | 23.33      | 23.23      | 23.66    | 2   | 23.70            | 23.29              | 23.31      | 23.25      | 23.44    | 0.3 | 23.70            |
|             |       | 36               | 20           | 23.61              | 23.35      | 23.22      | 23.50    | 2   | 23.70            | 23.35              | 23.31      | 23.27      | 23.49    | 0.3 | 23.70            |
| 10 MHz      | QPSK  | 36               | 39           | 23.61              | 23.34      | 23.22      | 23.51    | 2   | 23.70            | 23.33              | 23.30      | 23.27      | 23.49    | 0.3 | 23.70            |
|             |       | 75               | 0            | 23.69              | 23.41      | 23.27      | 23.56    | 2   | 23.70            | 23.42              | 23.38      | 23.32      | 23.54    | 0.3 | 23.70            |
|             |       | 1                | 0            | 23.28              | 23.17      | 23.30      | 23.46    | 2   | 23.70            | 23.60              | 23.28      | 23.53      | 23.59    | 0.3 | 23.70            |
|             |       | 1                | 37           | 23.19              | 23.68      | 23.09      | 23.42    | 2   | 23.70            | 23.51              | 23.26      | 23.69      | 23.68    | 0.3 | 23.70            |
|             |       | 1                | 74           | 23.32              | 23.11      | 23.25      | 23.54    | 2   | 23.70            | 23.61              | 23.39      | 23.65      | 23.23    | 0.3 | 23.70            |
|             |       | 36               | 0            | 22.69              | 22.59      | 22.66      | 22.25    | 3   | 22.70            | 22.28              | 22.57      | 22.55      | 22.43    | 1.3 | 22.70            |
|             | 16QAM | 36               | 20           | 22.00              | 22.60      | 22.00      | 22.25    | 3   | 22.70            | 22.34              | 22.64      | 22.54      | 22.50    | 1.3 | 22.70            |
|             |       | 36               | 39           | 22.03              | 22.53      | 22.68      | 22.25    | 3   | 22.70            | 22.33              | 22.62      | 22.55      | 22.51    | 1.3 | 22.70            |
|             |       | 75               | 0            | 22.03              | 22.64      | 22.68      | 22.33    | 3   | 22.70            | 22.39              | 22.66      | 22.59      | 22.59    | 1.3 | 22.70            |
|             |       | 1                | 0            | 25.65              | 25.11      | 25.01      | 25.61    | 0   | 25.70            | 23.97              | 23.92      | 23.98      | 23.97    | 0   | 24.00            |
|             |       | 1                | 25           | 25.46              | 25.35      | 25.21      | 25.66    | 0   | 25.70            | 23.74              | 23.82      | 23.73      | 23.96    | 0   | 24.00            |
|             |       | 1                | 49           | 25.55              | 25.12      | 25.46      | 25.60    | 0   | 25.70            | 23.95              | 23.99      | 23.98      | 23.94    | 0   | 24.00            |
| 10 MHz      | QPSK  | 25               | 0            | 24.57              | 24.51      | 24.39      | 24.58    | 1   | 24.70            | 23.85              | 23.98      | 23.94      | 23.62    | 0   | 24.00            |
|             |       | 25               | 12           | 24.60              | 24.44      | 24.32      | 24.52    | 1   | 24.70            | 23.85              | 23.92      | 23.86      | 23.55    | 0   | 24.00            |
|             |       | 25               | 25           | 24.69              | 24.50      | 24.37      | 24.53    | 1   | 24.70            | 23.96              | 23.96      | 23.91      | 23.53    | 0   | 24.00            |
|             |       | 50               | 0            | 24.70              | 24.57      | 24.45      | 24.66    | 1   | 24.70            | 23.98              | 23.46      | 23.41      | 23.71    | 0   | 24.00            |
|             | 16QAM | 1                | 0            | 24.53              | 24.22      | 24.13      | 24.61    | 1   | 24.70            | 23.48              | 23.54      | 23.50      | 23.76    | 0   | 24.00            |
|             |       | 1                | 25           | 24.63              | 24.01      | 24.34      | 24.56    | 1   | 24.70            | 23.85              | 23.97      | 23.89      | 23.53    | 0   | 24.00            |
|             |       | 1                | 49           | 24.43              | 24.25      | 24.15      | 24.49    | 1   | 24.70            | 23.35              | 23.47      | 23.39      | 23.68    | 0   | 24.00            |
|             |       | 25               | 0            | 23.51              | 23.39      | 23.28      | 23.46    | 2   | 23.70            | 23.23              | 23.35      | 23.33      | 23.49    | 0.3 | 23.70            |
|             |       | 25               | 12           | 23.47              | 23.32      | 23.26      | 23.65    | 2   | 23.70            | 23.21              | 23.29      | 23.24      | 23.47    | 0.3 | 23.70            |
|             |       | 25               | 25           | 23.59              | 23.36      | 23.31      | 23.65    | 2   | 23.70            | 23.36              | 23.34      | 23.28      | 23.47    | 0.3 | 23.70            |
|             | 64QAM | 50               | 0            | 23.65              | 23.52      | 23.44      | 23.67    | 2   | 23.70            | 23.47              | 23.49      | 23.44      | 23.22    | 0.3 | 23.70            |
|             |       | 1                | 0            | 23.16              | 23.15      | 23.15      | 23.46    | 2   | 23.70            | 23.50              | 23.28      | 23.53      | 23.66    | 0.3 | 23.70            |
|             |       | 1                | 25           | 23.65              | 23.61      | 23.57      | 23.21    | 2   | 23.70            | 23.23              | 23.62      | 23.49      | 23.53    | 0.3 | 23.70            |
|             |       | 1                | 49           | 23.34              | 23.09      | 23.22      | 23.50    | 2   | 23.70            | 23.22              | 23.35      | 23.57      | 23.70    | 0.3 | 23.70            |
|             |       | 25               | 0            | 22.04              | 22.53      | 22.07      | 22.25    | 3   | 22.70            | 22.27              | 22.62      | 22.61      | 22.45    | 1.3 | 22.70            |
|             |       | 25               | 12           | 22.67              | 22.47      | 22.65      | 22.19    | 3   | 22.70            | 22.26              | 22.58      | 22.54      | 22.44    | 1.3 | 22.70            |
| 10 MHz      | 64QAM | 25               | 25           | 22.03              | 22.53      | 22.02      | 22.23    | 3   | 22.70            | 22.38              | 22.63      | 22.59      | 22.45    | 1.3 | 22.70            |
|             |       | 50               | 0            | 22.15              | 22.01      | 22.17      | 22.46    | 3   | 22.70            | 22.44              | 22.28      | 22.55      | 22.66    | 1.3 | 22.70            |

**LTE Band 48 Measured Results (ANT1) (continued)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |            |            |            |     |                  | Power Mode B (dBm) |            |            |            |     |                  |
|-------------|-------|------------------|--------------|--------------------|------------|------------|------------|-----|------------------|--------------------|------------|------------|------------|-----|------------------|
|             |       |                  |              | 55265              | 55748      | 56232      | 56715      | MPR | Tune-up<br>Limit | 55265              | 55748      | 56232      | 56715      | MPR | Tune-up<br>Limit |
|             |       |                  |              | 3552.5 MHz         | 3600.8 MHz | 3649.2 MHz | 3697.5 MHz |     |                  | 3552.5 MHz         | 3600.8 MHz | 3649.2 MHz | 3697.5 MHz |     |                  |
| 5 MHz       | QPSK  | 1                | 0            | 25.53              | 25.41      | 25.42      | 25.61      | 0   | 25.70            | 23.87              | 23.92      | 23.92      | 23.99      | 0   | 24.00            |
|             |       | 1                | 12           | 25.40              | 25.29      | 25.22      | 25.60      | 0   | 25.70            | 23.63              | 23.67      | 23.63      | 23.80      | 0   | 24.00            |
|             |       | 1                | 24           | 25.69              | 25.49      | 25.43      | 25.62      | 0   | 25.70            | 23.90              | 23.99      | 23.91      | 23.96      | 0   | 24.00            |
|             |       | 12               | 0            | 24.50              | 24.40      | 24.28      | 24.48      | 1   | 24.70            | 23.75              | 23.86      | 23.83      | 23.64      | 0   | 24.00            |
|             |       | 12               | 7            | 24.42              | 24.33      | 24.19      | 24.64      | 1   | 24.70            | 23.69              | 23.79      | 23.72      | 23.86      | 0   | 24.00            |
|             |       | 12               | 13           | 24.56              | 24.37      | 24.24      | 24.46      | 1   | 24.70            | 23.83              | 23.84      | 23.77      | 23.92      | 0   | 24.00            |
|             |       | 25               | 0            | 24.65              | 24.54      | 24.42      | 24.58      | 1   | 24.70            | 23.90              | 23.61      | 23.97      | 23.72      | 0   | 24.00            |
|             | 16QAM | 1                | 0            | 24.65              | 24.62      | 24.42      | 24.57      | 1   | 24.70            | 23.78              | 23.99      | 23.95      | 23.79      | 0   | 24.00            |
|             |       | 1                | 12           | 24.42              | 24.37      | 24.14      | 24.53      | 1   | 24.70            | 23.71              | 23.72      | 23.79      | 23.97      | 0   | 24.00            |
|             |       | 1                | 24           | 24.47              | 24.59      | 24.43      | 24.52      | 1   | 24.70            | 23.97              | 23.62      | 23.62      | 23.75      | 0   | 24.00            |
|             |       | 12               | 0            | 23.34              | 23.21      | 23.16      | 23.57      | 2   | 23.70            | 23.09              | 23.18      | 23.12      | 23.41      | 0.3 | 23.70            |
|             |       | 12               | 7            | 23.27              | 23.13      | 23.07      | 23.45      | 2   | 23.70            | 22.99              | 23.11      | 23.06      | 23.23      | 0.3 | 23.70            |
|             |       | 12               | 13           | 23.34              | 23.16      | 23.11      | 23.48      | 2   | 23.70            | 23.11              | 23.16      | 23.10      | 23.28      | 0.3 | 23.70            |
|             |       | 25               | 0            | 23.48              | 23.37      | 23.30      | 23.67      | 2   | 23.70            | 23.25              | 23.33      | 23.27      | 23.48      | 0.3 | 23.70            |
|             | 64QAM | 1                | 0            | 23.41              | 23.26      | 23.31      | 23.30      | 2   | 23.70            | 23.32              | 23.35      | 23.63      | 23.52      | 0.3 | 23.70            |
|             |       | 1                | 12           | 23.25              | 23.06      | 23.55      | 23.16      | 2   | 23.70            | 23.68              | 23.62      | 23.39      | 23.24      | 0.3 | 23.70            |
|             |       | 1                | 24           | 23.19              | 23.06      | 23.10      | 23.10      | 2   | 23.70            | 23.41              | 23.38      | 23.60      | 23.48      | 0.3 | 23.70            |
|             |       | 12               | 0            | 22.17              | 22.16      | 22.00      | 22.20      | 3   | 22.70            | 22.51              | 22.31      | 22.55      | 22.62      | 1.3 | 22.70            |
|             |       | 12               | 7            | 22.12              | 22.09      | 22.64      | 22.15      | 3   | 22.70            | 22.49              | 22.25      | 22.37      | 22.27      | 1.3 | 22.70            |
|             |       | 12               | 13           | 22.09              | 22.67      | 22.49      | 22.12      | 3   | 22.70            | 22.63              | 22.29      | 22.34      | 22.29      | 1.3 | 22.70            |
|             |       | 25               | 0            | 22.04              | 22.68      | 22.06      | 22.69      | 3   | 22.70            | 22.25              | 22.62      | 22.58      | 22.52      | 1.3 | 22.70            |

**LTE Band 48 Measured Results (ANT6)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |            |            |          |     |                  | Power Mode B (dBm) |            |            |          |     |                  |
|-------------|-------|------------------|--------------|--------------------|------------|------------|----------|-----|------------------|--------------------|------------|------------|----------|-----|------------------|
|             |       |                  |              | 55340              | 55773      | 56207      | 56640    | MPR | Tune-up<br>Limit | 55340              | 55773      | 56207      | 56640    | MPR | Tune-up<br>Limit |
|             |       |                  |              | 3560 MHz           | 3603.3 MHz | 3646.7 MHz | 3690 MHz |     |                  | 3560 MHz           | 3603.3 MHz | 3646.7 MHz | 3690 MHz |     |                  |
| 20 MHz      | QPSK  | 1                | 0            | 22.30              | 22.43      | 22.32      | 22.14    | 0   | 22.50            | 22.30              | 22.43      | 22.32      | 22.14    | 0   | 22.50            |
|             |       | 1                | 49           | 22.40              | 22.50      | 22.40      | 22.39    | 0   | 22.50            | 22.40              | 22.50      | 22.40      | 22.39    | 0   | 22.50            |
|             |       | 1                | 99           | 22.27              | 22.36      | 22.26      | 22.23    | 0   | 22.50            | 22.27              | 22.36      | 22.26      | 22.23    | 0   | 22.50            |
|             |       | 50               | 0            | 21.20              | 21.28      | 21.15      | 21.05    | 1   | 21.50            | 21.20              | 21.28      | 21.15      | 21.05    | 1   | 21.50            |
|             |       | 50               | 24           | 21.30              | 21.30      | 21.20      | 21.30    | 1   | 21.50            | 21.30              | 21.30      | 21.20      | 21.30    | 1   | 21.50            |
|             |       | 50               | 50           | 21.11              | 21.24      | 21.18      | 21.26    | 1   | 21.50            | 21.11              | 21.24      | 21.18      | 21.26    | 1   | 21.50            |
|             | 16QAM | 100              | 0            | 21.20              | 21.20      | 21.24      | 21.16    | 1   | 21.50            | 21.20              | 21.20      | 21.24      | 21.16    | 1   | 21.50            |
|             |       | 1                | 0            | 21.42              | 21.42      | 21.49      | 21.30    | 1   | 21.50            | 21.42              | 21.42      | 21.49      | 21.30    | 1   | 21.50            |
|             |       | 1                | 49           | 21.29              | 21.31      | 21.23      | 21.18    | 1   | 21.50            | 21.29              | 21.31      | 21.23      | 21.18    | 1   | 21.50            |
|             |       | 1                | 99           | 21.44              | 21.13      | 21.44      | 21.44    | 1   | 21.50            | 21.44              | 21.13      | 21.44      | 21.44    | 1   | 21.50            |
|             |       | 50               | 0            | 20.44              | 20.43      | 20.49      | 20.42    | 2   | 20.50            | 20.44              | 20.43      | 20.49      | 20.42    | 2   | 20.50            |
|             |       | 50               | 24           | 20.16              | 20.20      | 20.47      | 20.45    | 2   | 20.50            | 20.16              | 20.20      | 20.47      | 20.45    | 2   | 20.50            |
|             | 64QAM | 50               | 50           | 20.48              | 20.16      | 20.07      | 20.05    | 2   | 20.50            | 20.48              | 20.16      | 20.07      | 20.05    | 2   | 20.50            |
|             |       | 100              | 0            | 20.29              | 20.24      | 20.23      | 20.20    | 2   | 20.50            | 20.29              | 20.24      | 20.23      | 20.20    | 2   | 20.50            |
|             |       | 1                | 0            | 20.50              | 20.39      | 20.33      | 20.46    | 2   | 20.50            | 20.50              | 20.39      | 20.33      | 20.46    | 2   | 20.50            |
|             |       | 1                | 49           | 20.38              | 20.42      | 20.32      | 20.41    | 2   | 20.50            | 20.38              | 20.42      | 20.32      | 20.41    | 2   | 20.50            |
|             |       | 1                | 99           | 20.41              | 20.36      | 20.32      | 20.34    | 2   | 20.50            | 20.41              | 20.36      | 20.32      | 20.34    | 2   | 20.50            |
|             |       | 50               | 0            | 19.48              | 19.32      | 19.41      | 19.33    | 3   | 19.50            | 19.48              | 19.32      | 19.41      | 19.33    | 3   | 19.50            |
| 15 MHz      | QPSK  | 50               | 24           | 19.50              | 19.46      | 19.40      | 19.38    | 3   | 19.50            | 19.50              | 19.46      | 19.40      | 19.38    | 3   | 19.50            |
|             |       | 50               | 50           | 19.48              | 19.44      | 19.36      | 19.50    | 3   | 19.50            | 19.48              | 19.44      | 19.36      | 19.50    | 3   | 19.50            |
|             |       | 100              | 0            | 19.43              | 19.38      | 19.32      | 19.35    | 3   | 19.50            | 19.43              | 19.38      | 19.32      | 19.35    | 3   | 19.50            |
|             | 16QAM | 1                | 0            | 21.32              | 21.34      | 21.47      | 21.50    | 1   | 21.50            | 21.32              | 21.34      | 21.47      | 21.50    | 1   | 21.50            |
|             |       | 1                | 37           | 21.33              | 21.40      | 21.39      | 21.34    | 1   | 21.50            | 21.33              | 21.40      | 21.39      | 21.34    | 1   | 21.50            |
|             |       | 1                | 74           | 21.44              | 21.33      | 21.49      | 21.39    | 1   | 21.50            | 21.44              | 21.33      | 21.49      | 21.39    | 1   | 21.50            |
|             |       | 36               | 0            | 20.34              | 20.48      | 20.44      | 20.41    | 2   | 20.50            | 20.34              | 20.48      | 20.44      | 20.41    | 2   | 20.50            |
|             |       | 36               | 20           | 20.38              | 20.42      | 20.44      | 20.46    | 2   | 20.50            | 20.38              | 20.42      | 20.44      | 20.46    | 2   | 20.50            |
|             |       | 36               | 39           | 20.46              | 20.42      | 20.44      | 20.44    | 2   | 20.50            | 20.46              | 20.42      | 20.44      | 20.44    | 2   | 20.50            |
|             | 64QAM | 75               | 0            | 20.45              | 20.43      | 20.49      | 20.35    | 2   | 20.50            | 20.45              | 20.43      | 20.49      | 20.35    | 2   | 20.50            |
|             |       | 1                | 0            | 20.37              | 20.36      | 20.35      | 20.31    | 2   | 20.50            | 20.37              | 20.36      | 20.35      | 20.31    | 2   | 20.50            |
|             |       | 1                | 37           | 20.39              | 20.32      | 20.46      | 20.36    | 2   | 20.50            | 20.39              | 20.32      | 20.46      | 20.36    | 2   | 20.50            |
|             |       | 1                | 74           | 20.33              | 20.35      | 20.38      | 20.43    | 2   | 20.50            | 20.33              | 20.35      | 20.38      | 20.43    | 2   | 20.50            |
|             |       | 36               | 0            | 19.45              | 19.43      | 19.31      | 19.39    | 3   | 19.50            | 19.45              | 19.43      | 19.31      | 19.39    | 3   | 19.50            |
|             |       | 36               | 20           | 19.31              | 19.41      | 19.33      | 19.45    | 3   | 19.50            | 19.31              | 19.41      | 19.33      | 19.45    | 3   | 19.50            |
| 10 MHz      | QPSK  | 36               | 39           | 19.37              | 19.35      | 19.31      | 19.46    | 3   | 19.50            | 19.37              | 19.35      | 19.31      | 19.46    | 3   | 19.50            |
|             |       | 75               | 0            | 19.42              | 19.45      | 19.38      | 19.32    | 3   | 19.50            | 19.42              | 19.45      | 19.38      | 19.32    | 3   | 19.50            |
|             | 16QAM | 1                | 0            | 21.39              | 21.33      | 21.37      | 21.32    | 1   | 21.50            | 21.39              | 21.33      | 21.37      | 21.32    | 1   | 21.50            |
|             |       | 1                | 25           | 21.38              | 21.48      | 21.33      | 21.35    | 1   | 21.50            | 21.38              | 21.48      | 21.33      | 21.35    | 1   | 21.50            |
|             |       | 1                | 49           | 21.36              | 21.30      | 21.49      | 21.36    | 1   | 21.50            | 21.36              | 21.30      | 21.49      | 21.36    | 1   | 21.50            |
|             |       | 25               | 0            | 20.45              | 20.32      | 20.42      | 20.36    | 2   | 20.50            | 20.45              | 20.32      | 20.42      | 20.36    | 2   | 20.50            |
|             | 64QAM | 25               | 12           | 20.44              | 20.45      | 20.41      | 20.49    | 2   | 20.50            | 20.44              | 20.45      | 20.41      | 20.49    | 2   | 20.50            |
|             |       | 25               | 25           | 20.33              | 20.31      | 20.47      | 20.47    | 2   | 20.50            | 20.33              | 20.31      | 20.47      | 20.47    | 2   | 20.50            |
|             |       | 50               | 0            | 20.40              | 20.48      | 20.41      | 20.33    | 2   | 20.50            | 20.40              | 20.48      | 20.41      | 20.33    | 2   | 20.50            |
|             |       | 1                | 0            | 20.36              | 20.45      | 20.31      | 20.38    | 2   | 20.50            | 20.36              | 20.45      | 20.31      | 20.38    | 2   | 20.50            |
|             |       | 1                | 25           | 20.50              | 20.40      | 20.36      | 20.37    | 2   | 20.50            | 20.50              | 20.40      | 20.36      | 20.37    | 2   | 20.50            |
|             |       | 1                | 49           | 20.31              | 20.44      | 20.46      | 20.33    | 2   | 20.50            | 20.31              | 20.44      | 20.46      | 20.33    | 2   | 20.50            |
|             | 64QAM | 25               | 0            | 19.35              | 19.36      | 19.33      | 19.45    | 3   | 19.50            | 19.35              | 19.36      | 19.33      | 19.45    | 3   | 19.50            |
|             |       | 25               | 12           | 19.42              | 19.47      | 19.45      | 19.35    | 3   | 19.50            | 19.42              | 19.47      | 19.45      | 19.35    | 3   | 19.50            |
|             |       | 25               | 25           | 19.45              | 19.43      | 19.50      | 19.33    | 3   | 19.50            | 19.45              | 19.43      | 19.50      | 19.33    | 3   | 19.50            |
|             |       | 50               | 0            | 19.37              | 19.40      | 19.48      | 19.45    | 3   | 19.50            | 19.37              | 19.40      | 19.48      | 19.45    | 3   | 19.50            |

**LTE Band 48 Measured Results (ANT6) (continued)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |            |            |            |     |                  | Power Mode B (dBm) |            |            |            |     |                  |
|-------------|-------|------------------|--------------|--------------------|------------|------------|------------|-----|------------------|--------------------|------------|------------|------------|-----|------------------|
|             |       |                  |              | 55265              | 55748      | 56232      | 56715      | MPR | Tune-up<br>Limit | 55265              | 55748      | 56232      | 56715      | MPR | Tune-up<br>Limit |
|             |       |                  |              | 3552.5 MHz         | 3600.8 MHz | 3649.2 MHz | 3697.5 MHz |     |                  | 3552.5 MHz         | 3600.8 MHz | 3649.2 MHz | 3697.5 MHz |     |                  |
| 5 MHz       | QPSK  | 1                | 0            | 22.50              | 22.44      | 22.38      | 22.43      | 0   | 22.50            | 22.50              | 22.44      | 22.38      | 22.43      | 0   | 22.50            |
|             |       | 1                | 12           | 22.25              | 22.46      | 22.32      | 22.43      | 0   | 22.50            | 22.25              | 22.46      | 22.32      | 22.43      | 0   | 22.50            |
|             |       | 1                | 24           | 22.42              | 22.40      | 22.32      | 22.38      | 0   | 22.50            | 22.42              | 22.40      | 22.32      | 22.38      | 0   | 22.50            |
|             |       | 12               | 0            | 21.44              | 21.50      | 21.45      | 21.34      | 1   | 21.50            | 21.44              | 21.50      | 21.45      | 21.34      | 1   | 21.50            |
|             |       | 12               | 7            | 21.35              | 21.41      | 21.38      | 21.49      | 1   | 21.50            | 21.35              | 21.41      | 21.38      | 21.49      | 1   | 21.50            |
|             |       | 12               | 13           | 21.47              | 21.47      | 21.43      | 21.32      | 1   | 21.50            | 21.47              | 21.47      | 21.43      | 21.32      | 1   | 21.50            |
|             |       | 25               | 0            | 21.36              | 21.05      | 21.39      | 21.39      | 1   | 21.50            | 21.36              | 21.05      | 21.39      | 21.39      | 1   | 21.50            |
|             | 16QAM | 1                | 0            | 21.19              | 21.25      | 21.18      | 21.09      | 1   | 21.50            | 21.19              | 21.25      | 21.18      | 21.09      | 1   | 21.50            |
|             |       | 1                | 12           | 21.39              | 21.45      | 21.38      | 21.29      | 1   | 21.50            | 21.39              | 21.45      | 21.38      | 21.29      | 1   | 21.50            |
|             |       | 1                | 24           | 21.45              | 21.44      | 21.47      | 21.32      | 1   | 21.50            | 21.45              | 21.44      | 21.47      | 21.32      | 1   | 21.50            |
|             |       | 12               | 0            | 20.25              | 20.32      | 20.26      | 20.34      | 2   | 20.50            | 20.25              | 20.32      | 20.26      | 20.34      | 2   | 20.50            |
|             |       | 12               | 7            | 20.17              | 20.33      | 20.19      | 20.27      | 2   | 20.50            | 20.17              | 20.33      | 20.19      | 20.27      | 2   | 20.50            |
|             |       | 12               | 13           | 20.30              | 20.34      | 20.28      | 20.30      | 2   | 20.50            | 20.30              | 20.34      | 20.28      | 20.30      | 2   | 20.50            |
|             |       | 25               | 0            | 20.42              | 20.35      | 20.48      | 20.31      | 2   | 20.50            | 20.42              | 20.35      | 20.48      | 20.31      | 2   | 20.50            |
|             | 64QAM | 1                | 0            | 20.48              | 20.34      | 20.50      | 20.35      | 2   | 20.50            | 20.48              | 20.34      | 20.50      | 20.35      | 2   | 20.50            |
|             |       | 1                | 12           | 20.35              | 20.39      | 20.33      | 20.36      | 2   | 20.50            | 20.35              | 20.39      | 20.33      | 20.36      | 2   | 20.50            |
|             |       | 1                | 24           | 20.35              | 20.31      | 20.39      | 20.35      | 2   | 20.50            | 20.35              | 20.31      | 20.39      | 20.35      | 2   | 20.50            |
|             |       | 12               | 0            | 19.41              | 19.43      | 19.35      | 19.48      | 3   | 19.50            | 19.41              | 19.43      | 19.35      | 19.48      | 3   | 19.50            |
|             |       | 12               | 7            | 19.36              | 19.40      | 19.48      | 19.35      | 3   | 19.50            | 19.36              | 19.40      | 19.48      | 19.35      | 3   | 19.50            |
|             |       | 12               | 13           | 19.47              | 19.39      | 19.43      | 19.40      | 3   | 19.50            | 19.47              | 19.39      | 19.43      | 19.40      | 3   | 19.50            |
|             |       | 25               | 0            | 19.45              | 19.37      | 19.37      | 19.42      | 3   | 19.50            | 19.45              | 19.37      | 19.37      | 19.42      | 3   | 19.50            |

**LTE Band 48 Measured Results (ANT3)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |            |            |          |     |                  | Power Mode B (dBm) |            |            |          |     |                  |
|-------------|-------|------------------|--------------|--------------------|------------|------------|----------|-----|------------------|--------------------|------------|------------|----------|-----|------------------|
|             |       |                  |              | 55340              | 55773      | 56207      | 56640    | MPR | Tune-up<br>Limit | 55340              | 55773      | 56207      | 56640    | MPR | Tune-up<br>Limit |
|             |       |                  |              | 3560 MHz           | 3603.3 MHz | 3646.7 MHz | 3690 MHz |     |                  | 3560 MHz           | 3603.3 MHz | 3646.7 MHz | 3690 MHz |     |                  |
| 20 MHz      | QPSK  | 1                | 0            | 25.00              | 24.72      | 24.52      | 25.00    | 0   | 25.50            | 25.00              | 24.72      | 24.52      | 25.00    | 0   | 25.50            |
|             |       | 1                | 49           | 25.15              | 25.15      | 25.15      | 25.31    | 0   | 25.50            | 25.15              | 25.15      | 25.15      | 25.31    | 0   | 25.50            |
|             |       | 1                | 99           | 25.10              | 24.64      | 24.51      | 25.04    | 0   | 25.50            | 25.10              | 24.64      | 24.51      | 25.04    | 0   | 25.50            |
|             |       | 50               | 0            | 24.41              | 23.58      | 23.60      | 23.92    | 1   | 24.50            | 24.41              | 23.58      | 23.60      | 23.92    | 1   | 24.50            |
|             |       | 50               | 24           | 24.31              | 24.21      | 24.21      | 24.45    | 1   | 24.50            | 24.31              | 24.21      | 24.21      | 24.45    | 1   | 24.50            |
|             |       | 50               | 50           | 24.33              | 23.68      | 23.59      | 23.95    | 1   | 24.50            | 24.33              | 23.68      | 23.59      | 23.95    | 1   | 24.50            |
|             |       | 100              | 0            | 24.30              | 24.37      | 24.37      | 24.30    | 1   | 24.50            | 24.30              | 24.37      | 24.37      | 24.30    | 1   | 24.50            |
|             | 16QAM | 1                | 0            | 24.43              | 23.89      | 23.80      | 24.21    | 1   | 24.50            | 24.43              | 23.89      | 23.80      | 24.21    | 1   | 24.50            |
|             |       | 1                | 49           | 24.49              | 23.60      | 23.54      | 23.98    | 1   | 24.50            | 24.49              | 23.60      | 23.54      | 23.98    | 1   | 24.50            |
|             |       | 1                | 99           | 24.40              | 23.76      | 23.76      | 24.29    | 1   | 24.50            | 24.40              | 23.76      | 23.76      | 24.29    | 1   | 24.50            |
|             |       | 50               | 0            | 23.37              | 22.68      | 22.56      | 22.89    | 2   | 23.50            | 23.37              | 22.68      | 22.56      | 22.89    | 2   | 23.50            |
|             |       | 50               | 24           | 23.29              | 22.57      | 22.54      | 22.87    | 2   | 23.50            | 23.29              | 22.57      | 22.54      | 22.87    | 2   | 23.50            |
|             |       | 50               | 50           | 23.32              | 22.55      | 22.53      | 22.90    | 2   | 23.50            | 23.32              | 22.55      | 22.53      | 22.90    | 2   | 23.50            |
|             |       | 100              | 0            | 23.42              | 22.66      | 22.66      | 23.00    | 2   | 23.50            | 23.42              | 22.66      | 22.66      | 23.00    | 2   | 23.50            |
|             | 64QAM | 1                | 0            | 23.43              | 23.33      | 23.31      | 23.41    | 2   | 23.50            | 23.43              | 23.33      | 23.31      | 23.41    | 2   | 23.50            |
|             |       | 1                | 49           | 23.48              | 23.43      | 23.49      | 23.42    | 2   | 23.50            | 23.48              | 23.43      | 23.49      | 23.42    | 2   | 23.50            |
|             |       | 1                | 99           | 23.43              | 23.40      | 23.49      | 23.35    | 2   | 23.50            | 23.43              | 23.40      | 23.49      | 23.35    | 2   | 23.50            |
|             |       | 50               | 0            | 22.49              | 22.47      | 22.40      | 22.35    | 3   | 22.50            | 22.49              | 22.47      | 22.40      | 22.35    | 3   | 22.50            |
|             |       | 50               | 24           | 22.31              | 22.40      | 22.34      | 22.31    | 3   | 22.50            | 22.31              | 22.40      | 22.34      | 22.31    | 3   | 22.50            |
|             |       | 50               | 50           | 22.31              | 22.38      | 22.31      | 22.36    | 3   | 22.50            | 22.31              | 22.38      | 22.31      | 22.36    | 3   | 22.50            |
|             |       | 100              | 0            | 22.46              | 22.31      | 22.46      | 22.45    | 3   | 22.50            | 22.46              | 22.31      | 22.46      | 22.45    | 3   | 22.50            |
| 15 MHz      | QPSK  | 1                | 0            | 25.43              | 24.72      | 24.58      | 24.93    | 0   | 25.50            | 25.43              | 24.72      | 24.58      | 24.93    | 0   | 25.50            |
|             |       | 1                | 37           | 25.29              | 24.57      | 24.51      | 24.84    | 0   | 25.50            | 25.29              | 24.57      | 24.51      | 24.84    | 0   | 25.50            |
|             |       | 1                | 74           | 25.32              | 24.64      | 24.64      | 24.97    | 0   | 25.50            | 25.32              | 24.64      | 24.64      | 24.97    | 0   | 25.50            |
|             |       | 36               | 0            | 24.21              | 23.63      | 23.52      | 23.86    | 1   | 24.50            | 24.21              | 23.63      | 23.52      | 23.86    | 1   | 24.50            |
|             |       | 36               | 20           | 24.21              | 23.58      | 23.52      | 23.87    | 1   | 24.50            | 24.21              | 23.58      | 23.52      | 23.87    | 1   | 24.50            |
|             |       | 36               | 39           | 24.14              | 23.55      | 23.54      | 23.87    | 1   | 24.50            | 24.14              | 23.55      | 23.54      | 23.87    | 1   | 24.50            |
|             |       | 75               | 0            | 24.26              | 23.63      | 23.54      | 23.87    | 1   | 24.50            | 24.26              | 23.63      | 23.54      | 23.87    | 1   | 24.50            |
|             | 16QAM | 1                | 0            | 24.44              | 23.74      | 23.60      | 23.96    | 1   | 24.50            | 24.44              | 23.74      | 23.60      | 23.96    | 1   | 24.50            |
|             |       | 1                | 37           | 24.26              | 23.66      | 23.54      | 23.87    | 1   | 24.50            | 24.26              | 23.66      | 23.54      | 23.87    | 1   | 24.50            |
|             |       | 1                | 74           | 24.31              | 23.72      | 23.67      | 23.97    | 1   | 24.50            | 24.31              | 23.72      | 23.67      | 23.97    | 1   | 24.50            |
|             |       | 36               | 0            | 23.20              | 22.56      | 22.66      | 22.75    | 2   | 23.50            | 23.20              | 22.56      | 22.66      | 22.75    | 2   | 23.50            |
|             |       | 36               | 20           | 23.25              | 22.74      | 22.66      | 22.78    | 2   | 23.50            | 23.25              | 22.74      | 22.66      | 22.78    | 2   | 23.50            |
|             |       | 36               | 39           | 23.17              | 22.68      | 22.67      | 22.82    | 2   | 23.50            | 23.17              | 22.68      | 22.67      | 22.82    | 2   | 23.50            |
|             |       | 75               | 0            | 23.31              | 22.79      | 22.70      | 22.87    | 2   | 23.50            | 23.31              | 22.79      | 22.70      | 22.87    | 2   | 23.50            |
|             | 64QAM | 1                | 0            | 23.48              | 23.27      | 23.40      | 23.06    | 2   | 23.50            | 23.48              | 23.27      | 23.40      | 23.06    | 2   | 23.50            |
|             |       | 1                | 37           | 23.39              | 23.08      | 23.19      | 23.02    | 2   | 23.50            | 23.39              | 23.08      | 23.19      | 23.02    | 2   | 23.50            |
|             |       | 1                | 74           | 22.92              | 23.21      | 23.35      | 23.14    | 2   | 23.50            | 22.92              | 23.21      | 23.35      | 23.14    | 2   | 23.50            |
|             |       | 36               | 0            | 22.19              | 21.99      | 22.06      | 22.45    | 3   | 22.50            | 22.19              | 21.99      | 22.06      | 22.45    | 3   | 22.50            |
|             |       | 36               | 20           | 22.20              | 22.00      | 22.10      | 22.45    | 3   | 22.50            | 22.20              | 22.00      | 22.10      | 22.45    | 3   | 22.50            |
|             |       | 36               | 39           | 22.23              | 21.93      | 22.08      | 22.45    | 3   | 22.50            | 22.23              | 21.93      | 22.08      | 22.45    | 3   | 22.50            |
|             |       | 75               | 0            | 22.23              | 22.04      | 22.08      | 21.93    | 3   | 22.50            | 22.23              | 22.04      | 22.08      | 21.93    | 3   | 22.50            |
| 10 MHz      | QPSK  | 1                | 0            | 25.44              | 24.68      | 24.84      | 25.02    | 0   | 25.50            | 25.44              | 24.68      | 24.84      | 25.02    | 0   | 25.50            |
|             |       | 1                | 25           | 25.04              | 24.52      | 24.56      | 24.75    | 0   | 25.50            | 25.04              | 24.52      | 24.56      | 24.75    | 0   | 25.50            |
|             |       | 1                | 49           | 25.43              | 24.76      | 24.81      | 24.97    | 0   | 25.50            | 25.43              | 24.76      | 24.81      | 24.97    | 0   | 25.50            |
|             |       | 25               | 0            | 24.33              | 23.61      | 23.80      | 23.91    | 1   | 24.50            | 24.33              | 23.61      | 23.80      | 23.91    | 1   | 24.50            |
|             |       | 25               | 12           | 24.26              | 23.58      | 23.74      | 23.84    | 1   | 24.50            | 24.26              | 23.58      | 23.74      | 23.84    | 1   | 24.50            |
|             |       | 25               | 25           | 24.30              | 23.60      | 23.79      | 23.88    | 1   | 24.50            | 24.30              | 23.60      | 23.79      | 23.88    | 1   | 24.50            |
|             |       | 50               | 0            | 24.35              | 23.70      | 23.88      | 24.00    | 1   | 24.50            | 24.35              | 23.70      | 23.88      | 24.00    | 1   | 24.50            |
|             | 16QAM | 1                | 0            | 24.47              | 23.83      | 23.89      | 24.01    | 1   | 24.50            | 24.47              | 23.83      | 23.89      | 24.01    | 1   | 24.50            |
|             |       | 1                | 25           | 24.40              | 23.64      | 23.62      | 23.68    | 1   | 24.50            | 24.40              | 23.64      | 23.62      | 23.68    | 1   | 24.50            |
|             |       | 1                | 49           | 24.50              | 23.88      | 23.92      | 23.99    | 1   | 24.50            | 24.50              | 23.88      | 23.92      | 23.99    | 1   | 24.50            |
|             |       | 25               | 0            | 23.23              | 22.58      | 22.66      | 22.76    | 2   | 23.50            | 23.23              | 22.58      | 22.66      | 22.76    | 2   | 23.50            |
|             |       | 25               | 12           | 23.24              | 22.53      | 22.59      | 22.74    | 2   | 23.50            | 23.24              | 22.53      | 22.59      | 22.74    | 2   | 23.50            |
|             |       | 25               | 25           | 23.26              | 22.52      | 22.64      | 22.79    | 2   | 23.50            | 23.26              | 22.52      | 22.64      | 22.79    | 2   | 23.50            |
|             |       | 50               | 0            | 23.40              | 22.71      | 22.85      | 22.98    | 2   | 23.50            | 23.40              | 22.71      | 22.85      | 22.98    | 2   | 23.50            |
|             | 64QAM | 1                | 0            | 23.36              | 23.25      | 23.25      | 23.06    | 2   | 23.50            | 23.36              | 23.25      | 23.25      | 23.06    | 2   | 23.50            |
|             |       | 1                | 25           | 23.15              | 23.01      | 22.97      | 23.41    | 2   | 23.50            | 23.15              | 23.01      | 22.97      | 23.41    | 2   | 23.50            |
|             |       | 1                | 49           | 22.94              | 23.19      | 23.32      | 23.10    | 2   | 23.50            | 22.94              | 23.19      | 23.32      | 23.10    | 2   | 23.50            |
|             |       | 25               | 0            | 22.24              | 21.93      | 22.17      | 22.45    | 3   | 22.50            | 22.24              | 21.93      | 22.17      | 22.45    | 3   | 22.50            |
|             |       | 25               | 12           | 22.17              | 22.47      | 22.05      | 22.39    | 3   | 22.50            | 22.17              | 22.47      | 22.05      | 22.39    | 3   | 22.50            |
|             |       | 25               | 25           | 22.23              | 21.93      | 22.12      | 22.43    | 3   | 22.50            | 22.23              | 21.93      | 22.12      | 22.43    | 3   | 22.50            |
|             |       | 50               | 0            | 22.35              | 22.11      | 22.27      | 22.06    | 3   | 22.50            | 22.35              | 22.11      | 22.27      | 22.06    | 3   | 22.50            |

**LTE Band 48 Measured Results (ANT3) (continued)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |            |            |            |     |                  | Power Mode B (dBm) |            |            |            |     |                  |
|-------------|-------|------------------|--------------|--------------------|------------|------------|------------|-----|------------------|--------------------|------------|------------|------------|-----|------------------|
|             |       |                  |              | 55265              | 55748      | 56232      | 56715      | MPR | Tune-up<br>Limit | 55265              | 55748      | 56232      | 56715      | MPR | Tune-up<br>Limit |
|             |       |                  |              | 3552.5 MHz         | 3600.8 MHz | 3649.2 MHz | 3697.5 MHz |     |                  | 3552.5 MHz         | 3600.8 MHz | 3649.2 MHz | 3697.5 MHz |     |                  |
| 5 MHz       | QPSK  | 1                | 0            | 25.40              | 24.89      | 24.77      | 24.81      | 0   | 25.50            | 25.40              | 24.89      | 24.77      | 24.81      | 0   | 25.50            |
|             |       | 1                | 12           | 25.05              | 24.64      | 24.60      | 24.63      | 0   | 25.50            | 25.05              | 24.64      | 24.60      | 24.63      | 0   | 25.50            |
|             |       | 1                | 24           | 25.36              | 24.78      | 24.59      | 24.87      | 0   | 25.50            | 25.36              | 24.78      | 24.59      | 24.87      | 0   | 25.50            |
|             |       | 12               | 0            | 24.24              | 23.71      | 23.66      | 23.79      | 1   | 24.50            | 24.24              | 23.71      | 23.66      | 23.79      | 1   | 24.50            |
|             |       | 12               | 7            | 24.12              | 23.62      | 23.64      | 23.73      | 1   | 24.50            | 24.12              | 23.62      | 23.64      | 23.73      | 1   | 24.50            |
|             |       | 12               | 13           | 24.17              | 23.68      | 23.70      | 23.78      | 1   | 24.50            | 24.17              | 23.68      | 23.70      | 23.78      | 1   | 24.50            |
|             |       | 25               | 0            | 24.37              | 23.84      | 23.81      | 23.93      | 1   | 24.50            | 24.37              | 23.84      | 23.81      | 23.93      | 1   | 24.50            |
|             | 16QAM | 1                | 0            | 24.44              | 23.93      | 23.74      | 23.91      | 1   | 24.50            | 24.44              | 23.93      | 23.74      | 23.91      | 1   | 24.50            |
|             |       | 1                | 12           | 24.35              | 23.61      | 23.50      | 23.72      | 1   | 24.50            | 24.35              | 23.61      | 23.50      | 23.72      | 1   | 24.50            |
|             |       | 1                | 24           | 24.37              | 23.76      | 23.67      | 23.86      | 1   | 24.50            | 24.37              | 23.76      | 23.67      | 23.86      | 1   | 24.50            |
|             |       | 12               | 0            | 23.09              | 22.61      | 22.51      | 22.65      | 2   | 23.50            | 23.09              | 22.61      | 22.51      | 22.65      | 2   | 23.50            |
|             |       | 12               | 7            | 23.07              | 22.55      | 22.54      | 22.55      | 2   | 23.50            | 23.07              | 22.55      | 22.54      | 22.55      | 2   | 23.50            |
|             |       | 12               | 13           | 23.10              | 22.57      | 22.54      | 22.61      | 2   | 23.50            | 23.10              | 22.57      | 22.54      | 22.61      | 2   | 23.50            |
|             |       | 25               | 0            | 23.28              | 22.76      | 22.66      | 22.80      | 2   | 23.50            | 23.28              | 22.76      | 22.66      | 22.80      | 2   | 23.50            |
|             | 64QAM | 1                | 0            | 23.01              | 23.36      | 22.81      | 22.80      | 2   | 23.50            | 23.01              | 23.36      | 22.81      | 22.80      | 2   | 23.50            |
|             |       | 1                | 12           | 23.35              | 23.16      | 22.95      | 23.26      | 2   | 23.50            | 23.35              | 23.16      | 22.95      | 23.26      | 2   | 23.50            |
|             |       | 1                | 24           | 23.29              | 23.16      | 23.20      | 23.20      | 2   | 23.50            | 23.29              | 23.16      | 23.20      | 23.20      | 2   | 23.50            |
|             |       | 12               | 0            | 22.37              | 22.36      | 22.10      | 22.40      | 3   | 22.50            | 22.37              | 22.36      | 22.10      | 22.40      | 3   | 22.50            |
|             |       | 12               | 7            | 22.32              | 22.29      | 22.04      | 22.35      | 3   | 22.50            | 22.32              | 22.29      | 22.04      | 22.35      | 3   | 22.50            |
|             |       | 12               | 13           | 22.29              | 22.17      | 22.49      | 22.32      | 3   | 22.50            | 22.29              | 22.17      | 22.49      | 22.32      | 3   | 22.50            |
|             |       | 25               | 0            | 22.14              | 22.08      | 22.16      | 22.09      | 3   | 22.50            | 22.14              | 22.08      | 22.16      | 22.09      | 3   | 22.50            |

**LTE Band 48 Measured Results (ANT4)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |            |            |          |     |                  | Power Mode B (dBm) |            |            |          |     |                  |
|-------------|-------|------------------|--------------|--------------------|------------|------------|----------|-----|------------------|--------------------|------------|------------|----------|-----|------------------|
|             |       |                  |              | 55340              | 55773      | 56207      | 56640    | MPR | Tune-up<br>Limit | 55340              | 55773      | 56207      | 56640    | MPR | Tune-up<br>Limit |
|             |       |                  |              | 3560 MHz           | 3603.3 MHz | 3646.7 MHz | 3690 MHz |     |                  | 3560 MHz           | 3603.3 MHz | 3646.7 MHz | 3690 MHz |     |                  |
| 20 MHz      | QPSK  | 1                | 0            | 22.04              | 21.87      | 20.61      | 22.03    | 0   | 22.50            | 22.04              | 21.87      | 20.61      | 22.03    | 0   | 22.50            |
|             |       | 1                | 49           | 22.20              | 22.00      | 22.00      | 22.10    | 0   | 22.50            | 22.20              | 22.00      | 22.00      | 22.10    | 0   | 22.50            |
|             |       | 1                | 99           | 22.12              | 21.91      | 21.76      | 22.03    | 0   | 22.50            | 22.12              | 21.91      | 21.76      | 22.03    | 0   | 22.50            |
|             |       | 50               | 0            | 20.88              | 20.72      | 20.47      | 20.80    | 1   | 21.50            | 20.88              | 20.72      | 20.47      | 20.80    | 1   | 21.50            |
|             |       | 50               | 24           | 21.00              | 21.00      | 21.00      | 21.00    | 1   | 21.50            | 21.00              | 21.00      | 21.00      | 21.00    | 1   | 21.50            |
|             |       | 50               | 50           | 20.92              | 20.65      | 20.50      | 20.80    | 1   | 21.50            | 20.92              | 20.65      | 20.50      | 20.80    | 1   | 21.50            |
|             |       | 100              | 0            | 21.00              | 21.00      | 21.00      | 21.00    | 1   | 21.50            | 21.00              | 21.00      | 21.00      | 21.00    | 1   | 21.50            |
|             | 16QAM | 1                | 0            | 21.15              | 20.99      | 20.81      | 21.13    | 1   | 21.50            | 21.15              | 20.99      | 20.81      | 21.13    | 1   | 21.50            |
|             |       | 1                | 49           | 21.01              | 20.72      | 20.54      | 20.86    | 1   | 21.50            | 21.01              | 20.72      | 20.54      | 20.86    | 1   | 21.50            |
|             |       | 1                | 99           | 21.19              | 21.00      | 20.82      | 21.09    | 1   | 21.50            | 21.19              | 21.00      | 20.82      | 21.09    | 1   | 21.50            |
|             |       | 50               | 0            | 19.82              | 19.61      | 19.41      | 19.71    | 2   | 20.50            | 19.82              | 19.61      | 19.41      | 19.71    | 2   | 20.50            |
|             |       | 50               | 24           | 19.85              | 19.54      | 19.38      | 19.69    | 2   | 20.50            | 19.85              | 19.54      | 19.38      | 19.69    | 2   | 20.50            |
|             |       | 50               | 50           | 19.86              | 19.61      | 19.44      | 19.73    | 2   | 20.50            | 19.86              | 19.61      | 19.44      | 19.73    | 2   | 20.50            |
|             |       | 100              | 0            | 19.98              | 19.66      | 19.47      | 19.82    | 2   | 20.50            | 19.98              | 19.66      | 19.47      | 19.82    | 2   | 20.50            |
|             | 64QAM | 1                | 0            | 20.44              | 20.37      | 20.32      | 20.38    | 2   | 20.50            | 20.44              | 20.37      | 20.32      | 20.38    | 2   | 20.50            |
|             |       | 1                | 49           | 20.47              | 20.32      | 20.49      | 20.18    | 2   | 20.50            | 20.47              | 20.32      | 20.49      | 20.18    | 2   | 20.50            |
|             |       | 1                | 99           | 20.36              | 20.40      | 20.34      | 20.32    | 2   | 20.50            | 20.36              | 20.40      | 20.34      | 20.32    | 2   | 20.50            |
|             |       | 50               | 0            | 19.32              | 19.47      | 19.36      | 19.37    | 3   | 19.50            | 19.32              | 19.47      | 19.36      | 19.37    | 3   | 19.50            |
|             |       | 50               | 24           | 19.36              | 19.37      | 19.34      | 19.36    | 3   | 19.50            | 19.36              | 19.37      | 19.34      | 19.36    | 3   | 19.50            |
|             |       | 50               | 50           | 19.42              | 19.42      | 19.45      | 19.37    | 3   | 19.50            | 19.42              | 19.42      | 19.45      | 19.37    | 3   | 19.50            |
|             |       | 100              | 0            | 19.50              | 19.49      | 19.44      | 19.31    | 3   | 19.50            | 19.50              | 19.49      | 19.44      | 19.31    | 3   | 19.50            |
| 15 MHz      | QPSK  | 1                | 0            | 21.92              | 21.58      | 21.53      | 21.73    | 0   | 22.50            | 21.92              | 21.58      | 21.53      | 21.73    | 0   | 22.50            |
|             |       | 1                | 37           | 21.78              | 21.45      | 21.45      | 21.65    | 0   | 22.50            | 21.78              | 21.45      | 21.45      | 21.65    | 0   | 22.50            |
|             |       | 1                | 74           | 21.95              | 21.62      | 21.58      | 21.85    | 0   | 22.50            | 21.95              | 21.62      | 21.58      | 21.85    | 0   | 22.50            |
|             |       | 36               | 0            | 20.79              | 20.45      | 20.43      | 20.68    | 1   | 21.50            | 20.79              | 20.45      | 20.43      | 20.68    | 1   | 21.50            |
|             |       | 36               | 20           | 20.79              | 20.42      | 20.42      | 20.68    | 1   | 21.50            | 20.79              | 20.42      | 20.42      | 20.68    | 1   | 21.50            |
|             |       | 36               | 39           | 20.85              | 20.46      | 20.41      | 20.70    | 1   | 21.50            | 20.85              | 20.46      | 20.41      | 20.70    | 1   | 21.50            |
|             |       | 75               | 0            | 20.82              | 20.48      | 20.46      | 20.71    | 1   | 21.50            | 20.82              | 20.48      | 20.46      | 20.71    | 1   | 21.50            |
|             | 16QAM | 1                | 0            | 20.80              | 20.58      | 20.58      | 20.70    | 1   | 21.50            | 20.80              | 20.58      | 20.58      | 20.70    | 1   | 21.50            |
|             |       | 1                | 37           | 20.70              | 20.43      | 20.51      | 20.63    | 1   | 21.50            | 20.70              | 20.43      | 20.51      | 20.63    | 1   | 21.50            |
|             |       | 1                | 74           | 20.87              | 20.69      | 20.59      | 20.78    | 1   | 21.50            | 20.87              | 20.69      | 20.59      | 20.78    | 1   | 21.50            |
|             |       | 36               | 0            | 19.64              | 19.47      | 19.36      | 19.57    | 2   | 20.50            | 19.64              | 19.47      | 19.36      | 19.57    | 2   | 20.50            |
|             |       | 36               | 20           | 19.64              | 19.44      | 19.36      | 19.58    | 2   | 20.50            | 19.64              | 19.44      | 19.36      | 19.58    | 2   | 20.50            |
|             |       | 36               | 39           | 19.73              | 19.44      | 19.35      | 19.58    | 2   | 20.50            | 19.73              | 19.44      | 19.35      | 19.58    | 2   | 20.50            |
|             |       | 75               | 0            | 19.71              | 19.51      | 19.40      | 19.67    | 2   | 20.50            | 19.71              | 19.51      | 19.40      | 19.67    | 2   | 20.50            |
|             | 64QAM | 1                | 0            | 20.35              | 20.36      | 20.45      | 20.16    | 2   | 20.50            | 20.35              | 20.36      | 20.45      | 20.16    | 2   | 20.50            |
|             |       | 1                | 37           | 20.38              | 20.41      | 20.31      | 20.01    | 2   | 20.50            | 20.38              | 20.41      | 20.31      | 20.01    | 2   | 20.50            |
|             |       | 1                | 74           | 20.44              | 20.33      | 20.47      | 20.24    | 2   | 20.50            | 20.44              | 20.33      | 20.47      | 20.24    | 2   | 20.50            |
|             |       | 36               | 0            | 19.43              | 19.39      | 19.34      | 19.26    | 3   | 19.50            | 19.43              | 19.39      | 19.34      | 19.26    | 3   | 19.50            |
|             |       | 36               | 20           | 19.45              | 19.34      | 19.35      | 19.23    | 3   | 19.50            | 19.45              | 19.34      | 19.35      | 19.23    | 3   | 19.50            |
|             |       | 36               | 39           | 19.34              | 19.32      | 19.34      | 19.25    | 3   | 19.50            | 19.34              | 19.32      | 19.34      | 19.25    | 3   | 19.50            |
|             |       | 75               | 0            | 19.47              | 19.37      | 19.39      | 19.31    | 3   | 19.50            | 19.47              | 19.37      | 19.39      | 19.31    | 3   | 19.50            |
| 10 MHz      | QPSK  | 1                | 0            | 21.84              | 21.68      | 21.53      | 21.82    | 0   | 22.50            | 21.84              | 21.68      | 21.53      | 21.82    | 0   | 22.50            |
|             |       | 1                | 25           | 21.60              | 21.37      | 21.29      | 21.59    | 0   | 22.50            | 21.60              | 21.37      | 21.29      | 21.59    | 0   | 22.50            |
|             |       | 1                | 49           | 21.95              | 21.70      | 21.51      | 21.90    | 0   | 22.50            | 21.95              | 21.70      | 21.51      | 21.90    | 0   | 22.50            |
|             |       | 25               | 0            | 20.80              | 20.58      | 20.47      | 20.74    | 1   | 21.50            | 20.80              | 20.58      | 20.47      | 20.74    | 1   | 21.50            |
|             |       | 25               | 12           | 20.73              | 20.53      | 20.40      | 20.69    | 1   | 21.50            | 20.73              | 20.53      | 20.40      | 20.69    | 1   | 21.50            |
|             |       | 25               | 25           | 20.79              | 20.58      | 20.44      | 20.74    | 1   | 21.50            | 20.79              | 20.58      | 20.44      | 20.74    | 1   | 21.50            |
|             |       | 50               | 0            | 20.86              | 20.66      | 20.52      | 20.85    | 1   | 21.50            | 20.86              | 20.66      | 20.52      | 20.85    | 1   | 21.50            |
|             | 16QAM | 1                | 0            | 20.98              | 20.76      | 20.71      | 20.76    | 1   | 21.50            | 20.98              | 20.76      | 20.71      | 20.76    | 1   | 21.50            |
|             |       | 1                | 25           | 20.72              | 20.50      | 20.45      | 20.54    | 1   | 21.50            | 20.72              | 20.50      | 20.45      | 20.54    | 1   | 21.50            |
|             |       | 1                | 49           | 21.03              | 20.76      | 20.67      | 20.80    | 1   | 21.50            | 21.03              | 20.76      | 20.67      | 20.80    | 1   | 21.50            |
|             |       | 25               | 0            | 19.68              | 19.44      | 19.37      | 19.57    | 2   | 20.50            | 19.68              | 19.44      | 19.37      | 19.57    | 2   | 20.50            |
|             |       | 25               | 12           | 19.61              | 19.38      | 19.29      | 19.51    | 2   | 20.50            | 19.61              | 19.38      | 19.29      | 19.51    | 2   | 20.50            |
|             |       | 25               | 25           | 19.66              | 19.43      | 19.33      | 19.56    | 2   | 20.50            | 19.66              | 19.43      | 19.33      | 19.56    | 2   | 20.50            |
|             |       | 50               | 0            | 19.80              | 19.63      | 19.48      | 19.78    | 2   | 20.50            | 19.80              | 19.63      | 19.48      | 19.78    | 2   | 20.50            |
|             | 64QAM | 1                | 0            | 20.30              | 20.41      | 20.42      | 20.46    | 2   | 20.50            | 20.30              | 20.41      | 20.42      | 20.46    | 2   | 20.50            |
|             |       | 1                | 25           | 20.18              | 20.32      | 20.48      | 20.28    | 2   | 20.50            | 20.18              | 20.32      | 20.48      | 20.28    | 2   | 20.50            |
|             |       | 1                | 49           | 20.50              | 20.35      | 20.41      | 20.33    | 2   | 20.50            | 20.50              | 20.35      | 20.41      | 20.33    | 2   | 20.50            |
|             |       | 25               | 0            | 19.39              | 19.41      | 19.40      | 19.32    | 3   | 19.50            | 19.39              | 19.41      | 19.40      | 19.32    | 3   | 19.50            |
|             |       | 25               | 12           | 19.39              | 19.33      | 19.34      | 19.30    | 3   | 19.50            | 19.39              | 19.33      | 19.34      | 19.30    | 3   | 19.50            |
|             |       | 25               | 25           | 19.45              | 19.39      | 19.38      | 19.37    | 3   | 19.50            | 19.45              | 19.39      | 19.38      | 19.37    | 3   | 19.50            |
|             |       | 50               | 0            | 19.38              | 19.33      | 19.33      | 19.34    | 3   | 19.50            | 19.38              | 19.33      | 19.33      | 19.34    | 3   | 19.50            |

**LTE Band 48 Measured Results (ANT4) (continued)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |            |            |            |     |                  |       | Power Mode B (dBm) |            |            |            |       |                  |  |
|-------------|-------|------------------|--------------|--------------------|------------|------------|------------|-----|------------------|-------|--------------------|------------|------------|------------|-------|------------------|--|
|             |       |                  |              | 55265              | 55748      | 56232      | 56715      | MPR | Tune-up<br>Limit |       | 55265              | 55748      | 56232      | 56715      | MPR   | Tune-up<br>Limit |  |
|             |       |                  |              | 3552.5 MHz         | 3600.8 MHz | 3649.2 MHz | 3697.5 MHz |     |                  |       | 3552.5 MHz         | 3600.8 MHz | 3649.2 MHz | 3697.5 MHz |       |                  |  |
| 5 MHz       | QPSK  | 1                | 0            | 21.81              | 21.66      | 21.49      | 21.44      | 0   | 22.50            | 21.81 | 21.66              | 21.49      | 21.44      | 0          | 22.50 |                  |  |
|             |       | 1                | 12           | 21.58              | 21.38      | 21.19      | 21.28      | 0   | 22.50            | 21.58 | 21.38              | 21.19      | 21.28      | 0          | 22.50 |                  |  |
|             |       | 1                | 24           | 21.84              | 21.64      | 21.48      | 21.46      | 0   | 22.50            | 21.84 | 21.64              | 21.48      | 21.46      | 0          | 22.50 |                  |  |
|             |       | 12               | 0            | 20.73              | 20.51      | 20.37      | 20.35      | 1   | 21.50            | 20.73 | 20.51              | 20.37      | 20.35      | 1          | 21.50 |                  |  |
|             |       | 12               | 7            | 20.64              | 20.43      | 20.30      | 20.35      | 1   | 21.50            | 20.64 | 20.43              | 20.30      | 20.35      | 1          | 21.50 |                  |  |
|             |       | 12               | 13           | 20.70              | 20.48      | 20.35      | 20.40      | 1   | 21.50            | 20.70 | 20.48              | 20.35      | 20.40      | 1          | 21.50 |                  |  |
|             |       | 25               | 0            | 20.88              | 20.59      | 20.50      | 20.56      | 1   | 21.50            | 20.88 | 20.59              | 20.50      | 20.56      | 1          | 21.50 |                  |  |
|             | 16QAM | 1                | 0            | 20.90              | 20.46      | 20.59      | 20.48      | 1   | 21.50            | 20.90 | 20.46              | 20.59      | 20.48      | 1          | 21.50 |                  |  |
|             |       | 1                | 12           | 20.68              | 20.30      | 20.31      | 20.23      | 1   | 21.50            | 20.68 | 20.30              | 20.31      | 20.23      | 1          | 21.50 |                  |  |
|             |       | 1                | 24           | 20.86              | 20.53      | 20.57      | 20.49      | 1   | 21.50            | 20.86 | 20.53              | 20.57      | 20.49      | 1          | 21.50 |                  |  |
|             |       | 12               | 0            | 19.54              | 19.28      | 19.20      | 19.21      | 2   | 20.50            | 19.54 | 19.28              | 19.20      | 19.21      | 2          | 20.50 |                  |  |
|             |       | 12               | 7            | 19.48              | 19.21      | 19.10      | 19.15      | 2   | 20.50            | 19.48 | 19.21              | 19.10      | 19.15      | 2          | 20.50 |                  |  |
|             |       | 12               | 13           | 19.52              | 19.24      | 19.15      | 19.20      | 2   | 20.50            | 19.52 | 19.24              | 19.15      | 19.20      | 2          | 20.50 |                  |  |
|             |       | 25               | 0            | 19.71              | 19.42      | 19.35      | 19.41      | 2   | 20.50            | 19.71 | 19.42              | 19.35      | 19.41      | 2          | 20.50 |                  |  |
|             | 64QAM | 1                | 0            | 20.36              | 20.43      | 20.47      | 20.39      | 2   | 20.50            | 20.36 | 20.43              | 20.47      | 20.39      | 2          | 20.50 |                  |  |
|             |       | 1                | 12           | 20.26              | 20.44      | 20.36      | 20.07      | 2   | 20.50            | 20.26 | 20.44              | 20.36      | 20.07      | 2          | 20.50 |                  |  |
|             |       | 1                | 24           | 20.43              | 20.45      | 20.48      | 20.40      | 2   | 20.50            | 20.43 | 20.45              | 20.48      | 20.40      | 2          | 20.50 |                  |  |
|             |       | 12               | 0            | 19.17              | 19.44      | 19.38      | 19.21      | 3   | 19.50            | 19.17 | 19.44              | 19.38      | 19.21      | 3          | 19.50 |                  |  |
|             |       | 12               | 7            | 18.95              | 19.31      | 19.45      | 19.12      | 3   | 19.50            | 18.95 | 19.31              | 19.45      | 19.12      | 3          | 19.50 |                  |  |
|             |       | 12               | 13           | 19.22              | 19.36      | 19.41      | 19.25      | 3   | 19.50            | 19.22 | 19.36              | 19.41      | 19.25      | 3          | 19.50 |                  |  |
|             |       | 25               | 0            | 19.37              | 19.44      | 19.41      | 19.38      | 3   | 19.50            | 19.37 | 19.44              | 19.41      | 19.38      | 3          | 19.50 |                  |  |

**LTE Band 66 Measured Results (ANT1)**

| BW<br>(MHz) | Mode   | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |          |          |       |                  | Power Mode B (dBm) |          |          |       |                  |       |
|-------------|--------|------------------|--------------|--------------------|----------|----------|-------|------------------|--------------------|----------|----------|-------|------------------|-------|
|             |        |                  |              | 132072             | 132322   | 132572   | MPR   | Tune-up<br>Limit | 132072             | 132322   | 132572   | MPR   | Tune-up<br>Limit |       |
|             |        |                  |              | 1720 MHz           | 1745 MHz | 1770 MHz |       |                  | 1720 MHz           | 1745 MHz | 1770 MHz |       |                  |       |
| 20 MHz      | QPSK   | 1                | 0            | 25.59              | 25.34    | 25.35    | 0     | 25.70            | 17.86              | 17.81    | 17.72    | 0     | 18.00            |       |
|             |        | 1                | 49           | 25.60              | 25.60    | 25.60    | 0     | 25.70            | 17.90              | 17.80    | 17.80    | 0     | 18.00            |       |
|             |        | 1                | 99           | 25.34              | 25.38    | 25.38    | 0     | 25.70            | 17.75              | 17.84    | 17.96    | 0     | 18.00            |       |
|             |        | 50               | 0            | 24.55              | 24.40    | 24.36    | 1     | 24.70            | 17.82              | 17.85    | 17.83    | 0     | 18.00            |       |
|             |        | 50               | 24           | 24.60              | 24.60    | 24.60    | 1     | 24.70            | 17.90              | 17.80    | 17.80    | 0     | 18.00            |       |
|             |        | 50               | 50           | 24.38              | 24.44    | 24.27    | 1     | 24.70            | 17.85              | 17.91    | 17.87    | 0     | 18.00            |       |
|             | 16QAM  | 100              | 0            | 24.60              | 24.60    | 24.60    | 1     | 24.70            | 17.80              | 17.80    | 17.80    | 0     | 18.00            |       |
|             |        | 1                | 0            | 24.47              | 24.35    | 24.25    | 1     | 24.70            | 17.96              | 17.95    | 17.85    | 0     | 18.00            |       |
|             |        | 1                | 49           | 24.38              | 24.40    | 24.26    | 1     | 24.70            | 17.81              | 17.89    | 17.99    | 0     | 18.00            |       |
|             |        | 1                | 99           | 24.24              | 24.38    | 24.32    | 1     | 24.70            | 17.87              | 17.87    | 17.97    | 0     | 18.00            |       |
|             |        | 50               | 0            | 23.21              | 23.00    | 23.38    | 2     | 23.70            | 17.95              | 17.86    | 17.88    | 0     | 18.00            |       |
|             |        | 50               | 24           | 23.11              | 23.03    | 23.37    | 2     | 23.70            | 17.84              | 17.86    | 17.94    | 0     | 18.00            |       |
|             | 64QAM  | 50               | 50           | 23.05              | 23.07    | 23.34    | 2     | 23.70            | 17.95              | 17.92    | 17.92    | 0     | 18.00            |       |
|             |        | 100              | 0            | 23.09              | 23.05    | 23.36    | 2     | 23.70            | 17.71              | 17.93    | 17.90    | 0     | 18.00            |       |
|             |        | 1                | 0            | 23.43              | 23.48    | 23.39    | 2     | 23.70            | 17.78              | 17.80    | 17.89    | 0     | 18.00            |       |
|             |        | 1                | 49           | 23.25              | 23.46    | 23.39    | 2     | 23.70            | 17.93              | 17.82    | 17.78    | 0     | 18.00            |       |
|             |        | 1                | 99           | 23.13              | 23.46    | 23.44    | 2     | 23.70            | 17.77              | 17.92    | 17.95    | 0     | 18.00            |       |
|             |        | 50               | 0            | 22.40              | 22.18    | 22.13    | 3     | 22.70            | 17.96              | 17.99    | 17.92    | 0     | 18.00            |       |
|             | 15 MHz | QPSK             | 50           | 24                 | 22.26    | 22.22    | 22.11 | 3                | 22.70              | 17.80    | 17.77    | 17.90 | 0                | 18.00 |
|             |        |                  | 50           | 50                 | 22.19    | 22.25    | 22.09 | 3                | 22.70              | 17.76    | 17.78    | 17.85 | 0                | 18.00 |
|             |        |                  | 100          | 0                  | 22.22    | 22.24    | 22.11 | 3                | 22.70              | 17.79    | 17.75    | 17.87 | 0                | 18.00 |
| 1           |        |                  | 0            | 25.55              | 25.34    | 25.43    | 0     | 25.70            | 17.95              | 17.78    | 17.80    | 0     | 18.00            |       |
| 1           |        |                  | 37           | 25.47              | 25.38    | 25.41    | 0     | 25.70            | 17.99              | 17.74    | 17.84    | 0     | 18.00            |       |
| 1           |        |                  | 74           | 25.33              | 25.35    | 25.44    | 0     | 25.70            | 17.86              | 17.69    | 17.80    | 0     | 18.00            |       |
| 16QAM       | 36     | 0                | 24.65        | 24.36              | 24.44    | 1        | 24.70 | 17.96            | 17.72              | 17.79    | 0        | 18.00 |                  |       |
|             | 36     | 20               | 24.49        | 24.43              | 24.41    | 1        | 24.70 | 17.92            | 17.74              | 17.77    | 0        | 18.00 |                  |       |
|             | 36     | 39               | 24.43        | 24.44              | 24.41    | 1        | 24.70 | 17.98            | 17.75              | 17.73    | 0        | 18.00 |                  |       |
|             | 75     | 0                | 24.46        | 24.41              | 24.41    | 1        | 24.70 | 17.94            | 17.73              | 17.77    | 0        | 18.00 |                  |       |
|             | 1      | 0                | 24.43        | 24.33              | 24.43    | 1        | 24.70 | 17.87            | 17.99              | 17.91    | 0        | 18.00 |                  |       |
|             | 1      | 37               | 24.28        | 24.29              | 24.37    | 1        | 24.70 | 17.90            | 17.92              | 17.97    | 0        | 18.00 |                  |       |
| 64QAM       | 1      | 74               | 24.18        | 24.29              | 24.36    | 1        | 24.70 | 17.98            | 17.99              | 17.99    | 0        | 18.00 |                  |       |
|             | 36     | 0                | 23.67        | 23.39              | 23.49    | 2        | 23.70 | 17.97            | 17.75              | 17.86    | 0        | 18.00 |                  |       |
|             | 36     | 20               | 23.53        | 23.47              | 23.46    | 2        | 23.70 | 17.95            | 17.76              | 17.84    | 0        | 18.00 |                  |       |
|             | 36     | 39               | 23.49        | 23.48              | 23.45    | 2        | 23.70 | 17.97            | 17.76              | 17.80    | 0        | 18.00 |                  |       |
|             | 75     | 0                | 23.49        | 23.43              | 23.43    | 2        | 23.70 | 17.99            | 17.75              | 17.83    | 0        | 18.00 |                  |       |
|             | 1      | 0                | 23.66        | 23.39              | 23.34    | 2        | 23.70 | 17.90            | 17.91              | 17.83    | 0        | 18.00 |                  |       |
| 10 MHz      | QPSK   | 1                | 37           | 23.53              | 23.38    | 23.24    | 2     | 23.70            | 17.90              | 17.86    | 17.75    | 0     | 18.00            |       |
|             |        | 1                | 74           | 23.43              | 23.34    | 23.24    | 2     | 23.70            | 17.76              | 17.86    | 17.75    | 0     | 18.00            |       |
|             |        | 36               | 0            | 22.47              | 22.23    | 22.13    | 3     | 22.70            | 17.88              | 17.78    | 17.75    | 0     | 18.00            |       |
|             |        | 36               | 20           | 22.33              | 22.27    | 22.12    | 3     | 22.70            | 17.91              | 17.81    | 17.97    | 0     | 18.00            |       |
|             |        | 36               | 39           | 22.28              | 22.26    | 22.05    | 3     | 22.70            | 17.86              | 17.81    | 17.89    | 0     | 18.00            |       |
|             |        | 75               | 0            | 22.28              | 22.25    | 22.03    | 3     | 22.70            | 17.89              | 17.75    | 17.84    | 0     | 18.00            |       |
| 16QAM       | 1      | 0                | 24.42        | 24.29              | 24.34    | 1        | 24.70 | 17.99            | 17.80              | 17.72    | 0        | 18.00 |                  |       |
|             | 1      | 25               | 24.41        | 24.30              | 24.28    | 1        | 24.70 | 17.70            | 17.82              | 17.92    | 0        | 18.00 |                  |       |
|             | 1      | 49               | 24.29        | 24.39              | 24.37    | 1        | 24.70 | 17.90            | 17.77              | 17.98    | 0        | 18.00 |                  |       |
|             | 25     | 0                | 23.64        | 23.37              | 23.43    | 2        | 23.70 | 17.80            | 17.88              | 17.95    | 0        | 18.00 |                  |       |
|             | 25     | 12               | 23.63        | 23.44              | 23.41    | 2        | 23.70 | 17.81            | 17.93              | 17.93    | 0        | 18.00 |                  |       |
|             | 25     | 25               | 23.52        | 23.45              | 23.46    | 2        | 23.70 | 17.99            | 17.95              | 17.71    | 0        | 18.00 |                  |       |
| 64QAM       | 50     | 0                | 23.63        | 23.43              | 23.41    | 2        | 23.70 | 17.80            | 17.93              | 17.95    | 0        | 18.00 |                  |       |
|             | 1      | 0                | 23.62        | 23.42              | 23.27    | 2        | 23.70 | 17.86            | 17.95              | 17.70    | 0        | 18.00 |                  |       |
|             | 1      | 25               | 23.53        | 23.47              | 23.20    | 2        | 23.70 | 17.92            | 17.89              | 17.99    | 0        | 18.00 |                  |       |
|             | 1      | 49               | 23.39        | 23.48              | 23.40    | 2        | 23.70 | 17.77            | 17.85              | 17.60    | 0        | 18.00 |                  |       |
|             | 25     | 0                | 22.45        | 22.24              | 22.17    | 3        | 22.70 | 17.81            | 17.76              | 18.00    | 0        | 18.00 |                  |       |
|             | 25     | 12               | 22.45        | 22.36              | 22.17    | 3        | 22.70 | 17.82            | 17.76              | 17.97    | 0        | 18.00 |                  |       |
| 20 MHz      | QPSK   | 25               | 25           | 22.36              | 22.35    | 22.22    | 3     | 22.70            | 17.99              | 17.77    | 17.52    | 0     | 18.00            |       |
|             |        | 50               | 0            | 22.46              | 22.29    | 22.17    | 3     | 22.70            | 17.83              | 17.82    | 17.97    | 0     | 18.00            |       |
|             |        | 1                | 0            | 25.61              | 25.31    | 25.42    | 0     | 25.70            | 17.82              | 17.78    | 17.95    | 0     | 18.00            |       |
|             |        | 1                | 25           | 25.62              | 25.37    | 25.37    | 0     | 25.70            | 17.81              | 17.77    | 17.90    | 0     | 18.00            |       |
|             |        | 1                | 49           | 25.50              | 25.43    | 25.48    | 0     | 25.70            | 17.93              | 17.83    | 17.97    | 0     | 18.00            |       |
|             |        | 25               | 0            | 24.60              | 24.35    | 24.39    | 1     | 24.70            | 17.75              | 17.77    | 17.89    | 0     | 18.00            |       |
| 16QAM       | 25     | 12               | 24.61        | 24.42              | 24.36    | 1        | 24.70 | 17.77            | 17.81              | 17.87    | 0        | 18.00 |                  |       |
|             | 25     | 25               | 24.51        | 24.44              | 24.45    | 1        | 24.70 | 17.95            | 17.81              | 17.95    | 0        | 18.00 |                  |       |
|             | 50     | 0                | 24.57        | 24.43              | 24.36    | 1        | 24.70 | 17.76            | 17.82              | 17.88    | 0        | 18.00 |                  |       |
|             | 1      | 0                | 24.42        | 24.29              | 24.34    | 1        | 24.70 | 17.99            | 17.80              | 17.72    | 0        | 18.00 |                  |       |
|             | 1      | 25               | 24.41        | 24.30              | 24.28    | 1        | 24.70 | 17.70            | 17.82              | 17.92    | 0        | 18.00 |                  |       |
|             | 1      | 49               | 24.29        | 24.39              | 24.37    | 1        | 24.70 | 17.90            | 17.77              | 17.98    | 0        | 18.00 |                  |       |
| 64QAM       | 25     | 0                | 23.64        | 23.37              | 23.43    | 2        | 23.70 | 17.80            | 17.88              | 17.95    | 0        | 18.00 |                  |       |
|             | 25     | 12               | 23.63        | 23.44              | 23.41    | 2        | 23.70 | 17.81            | 17.93              | 17.93    | 0        | 18.00 |                  |       |
|             | 25     | 25               | 23.52        | 23.45              | 23.46    | 2        | 23.70 | 17.99            | 17.95              | 17.71    | 0        | 18.00 |                  |       |
|             | 50     | 0                | 23.63        | 23.43              | 23.41    | 2        | 23.70 | 17.80            | 17.93              | 17.95    | 0        | 18.00 |                  |       |
|             | 1      | 0                | 23.62        | 23.42              | 23.27    | 2        | 23.70 | 17.86            | 17.95              | 17.70    | 0        | 18.00 |                  |       |
|             | 1      | 25               | 23.53        | 23.47              | 23.20    | 2        | 23.70 | 17.92            | 17.89              | 17.99    | 0        | 18.00 |                  |       |
| QPSK        | 1      | 49               | 23.39        | 23.48              | 23.40    | 2        | 23.70 | 17.77            | 17.85              | 17.60    | 0        | 18.00 |                  |       |
|             | 25     | 0                | 22.45        | 22.24              | 22.17    | 3        | 22.70 | 17.81            | 17.76              | 18.00    | 0        | 18.00 |                  |       |
|             | 25     | 12               | 22.45        | 22.36              | 22.17    | 3        | 22.70 | 17.82            | 17.76              | 17.97    | 0        | 18.00 |                  |       |
|             | 25     | 25               | 22.36        | 22.35              | 22.22    | 3        | 22.70 | 17.99            | 17.77              | 17.52    | 0        | 18.00 |                  |       |
|             | 50     | 0                | 22.46        | 22.29              | 22.17    | 3        | 22.70 | 17.83            | 17.82              | 17.97    | 0        | 18.00 |                  |       |
|             | 1      | 0                | 25.61        | 25.31              | 25.42    | 0        | 25.70 | 17.82            | 17.78              | 17.95    | 0        | 18.00 |                  |       |

**LTE Band 66 Measured Results (ANT1) (continued)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |          |            |     |                  | Power Mode B (dBm) |          |            |     |                  |
|-------------|-------|------------------|--------------|--------------------|----------|------------|-----|------------------|--------------------|----------|------------|-----|------------------|
|             |       |                  |              | 131997             | 132322   | 132647     | MPR | Tune-up<br>Limit | 131997             | 132322   | 132647     | MPR | Tune-up<br>Limit |
|             |       |                  |              | 1712.5 MHz         | 1745 MHz | 1777.5 MHz |     |                  | 1712.5 MHz         | 1745 MHz | 1777.5 MHz |     |                  |
| 5 MHz       | QPSK  | 1                | 0            | 25.47              | 25.23    | 25.30      | 0   | 25.70            | 17.96              | 17.77    | 17.82      | 0   | 18.00            |
|             |       | 1                | 12           | 25.45              | 25.28    | 25.36      | 0   | 25.70            | 17.93              | 17.78    | 17.87      | 0   | 18.00            |
|             |       | 1                | 24           | 25.51              | 25.34    | 25.41      | 0   | 25.70            | 17.98              | 17.81    | 17.88      | 0   | 18.00            |
|             |       | 12               | 0            | 24.44              | 24.27    | 24.23      | 1   | 24.70            | 17.87              | 17.73    | 17.74      | 0   | 18.00            |
|             |       | 12               | 7            | 24.43              | 24.26    | 24.30      | 1   | 24.70            | 17.88              | 17.72    | 17.78      | 0   | 18.00            |
|             |       | 12               | 13           | 24.51              | 24.25    | 24.30      | 1   | 24.70            | 17.93              | 17.73    | 17.75      | 0   | 18.00            |
|             | 16QAM | 25               | 0            | 24.44              | 24.25    | 24.32      | 1   | 24.70            | 17.89              | 17.75    | 17.79      | 0   | 18.00            |
|             |       | 1                | 0            | 24.45              | 24.11    | 24.30      | 1   | 24.70            | 17.97              | 17.75    | 17.89      | 0   | 18.00            |
|             |       | 1                | 12           | 24.42              | 24.18    | 24.33      | 1   | 24.70            | 17.98              | 17.78    | 17.94      | 0   | 18.00            |
|             |       | 1                | 24           | 24.41              | 24.21    | 24.41      | 1   | 24.70            | 17.74              | 17.80    | 17.95      | 0   | 18.00            |
|             |       | 12               | 0            | 23.43              | 23.26    | 23.28      | 2   | 23.70            | 17.86              | 17.75    | 17.73      | 0   | 18.00            |
|             |       | 12               | 7            | 23.42              | 23.26    | 23.31      | 2   | 23.70            | 17.91              | 17.75    | 17.80      | 0   | 18.00            |
|             | 64QAM | 12               | 13           | 23.47              | 23.30    | 23.30      | 2   | 23.70            | 17.95              | 17.74    | 17.82      | 0   | 18.00            |
|             |       | 25               | 0            | 23.41              | 23.30    | 23.27      | 2   | 23.70            | 17.90              | 17.71    | 17.78      | 0   | 18.00            |
|             |       | 1                | 0            | 23.65              | 23.45    | 23.31      | 2   | 23.70            | 17.84              | 17.99    | 17.77      | 0   | 18.00            |
|             |       | 1                | 12           | 23.58              | 23.42    | 23.30      | 2   | 23.70            | 17.87              | 17.98    | 17.83      | 0   | 18.00            |
|             |       | 1                | 24           | 23.65              | 23.46    | 23.44      | 2   | 23.70            | 17.92              | 17.99    | 17.80      | 0   | 18.00            |
|             |       | 12               | 0            | 22.29              | 22.09    | 22.04      | 3   | 22.70            | 18.00              | 17.87    | 17.77      | 0   | 18.00            |
| 3 MHz       | QPSK  | 12               | 7            | 22.25              | 22.07    | 22.09      | 3   | 22.70            | 17.79              | 17.85    | 17.87      | 0   | 18.00            |
|             |       | 12               | 13           | 22.32              | 22.06    | 22.08      | 3   | 22.70            | 17.86              | 17.84    | 17.82      | 0   | 18.00            |
|             |       | 25               | 0            | 22.27              | 22.07    | 22.06      | 3   | 22.70            | 17.83              | 17.83    | 17.82      | 0   | 18.00            |
|             | 16QAM | 1                | 0            | 25.37              | 25.28    | 25.29      | 0   | 25.70            | 17.84              | 17.70    | 17.83      | 0   | 18.00            |
|             |       | 1                | 8            | 25.41              | 25.29    | 25.30      | 0   | 25.70            | 17.91              | 17.73    | 17.88      | 0   | 18.00            |
|             |       | 1                | 14           | 25.39              | 25.21    | 25.27      | 0   | 25.70            | 17.87              | 17.69    | 17.81      | 0   | 18.00            |
|             |       | 8                | 0            | 24.24              | 24.12    | 24.18      | 1   | 24.70            | 17.74              | 17.60    | 17.73      | 0   | 18.00            |
|             |       | 8                | 4            | 24.21              | 24.16    | 24.18      | 1   | 24.70            | 17.74              | 17.59    | 17.72      | 0   | 18.00            |
|             |       | 8                | 7            | 24.22              | 24.16    | 24.19      | 1   | 24.70            | 17.76              | 17.61    | 17.74      | 0   | 18.00            |
|             | 64QAM | 15               | 0            | 24.23              | 24.19    | 24.17      | 1   | 24.70            | 17.76              | 17.62    | 17.73      | 0   | 18.00            |
|             |       | 1                | 0            | 24.59              | 24.53    | 24.53      | 1   | 24.70            | 17.95              | 17.91    | 17.99      | 0   | 18.00            |
|             |       | 1                | 8            | 24.60              | 24.61    | 24.56      | 1   | 24.70            | 17.86              | 17.99    | 17.89      | 0   | 18.00            |
|             |       | 1                | 14           | 24.57              | 24.53    | 24.56      | 1   | 24.70            | 17.98              | 17.98    | 17.94      | 0   | 18.00            |
|             |       | 8                | 0            | 23.26              | 23.16    | 23.20      | 2   | 23.70            | 17.76              | 17.60    | 17.72      | 0   | 18.00            |
|             |       | 8                | 4            | 23.29              | 23.15    | 23.19      | 2   | 23.70            | 17.74              | 17.56    | 17.71      | 0   | 18.00            |
| 1.4 MHz     | QPSK  | 8                | 7            | 23.26              | 23.17    | 23.19      | 2   | 23.70            | 17.75              | 17.59    | 17.72      | 0   | 18.00            |
|             |       | 15               | 0            | 23.23              | 23.13    | 23.18      | 2   | 23.70            | 17.72              | 17.58    | 17.70      | 0   | 18.00            |
|             |       | 1                | 0            | 23.37              | 23.21    | 23.09      | 2   | 23.70            | 17.89              | 18.00    | 17.76      | 0   | 18.00            |
|             |       | 1                | 8            | 23.36              | 23.31    | 23.19      | 2   | 23.70            | 17.80              | 17.88    | 17.78      | 0   | 18.00            |
|             |       | 1                | 14           | 23.30              | 23.31    | 23.07      | 2   | 23.70            | 17.89              | 17.79    | 17.94      | 0   | 18.00            |
|             |       | 8                | 0            | 22.47              | 22.41    | 22.25      | 3   | 22.70            | 17.81              | 17.77    | 17.72      | 0   | 18.00            |
|             | 16QAM | 8                | 4            | 22.47              | 22.39    | 22.27      | 3   | 22.70            | 17.83              | 17.77    | 17.71      | 0   | 18.00            |
|             |       | 8                | 7            | 22.47              | 22.40    | 22.28      | 3   | 22.70            | 17.85              | 17.77    | 17.71      | 0   | 18.00            |
|             |       | 15               | 0            | 22.47              | 22.37    | 22.22      | 3   | 22.70            | 17.84              | 17.75    | 17.64      | 0   | 18.00            |
|             |       | 1                | 0            | 24.33              | 24.19    | 24.26      | 1   | 24.70            | 17.97              | 17.90    | 17.97      | 0   | 18.00            |
|             |       | 1                | 3            | 24.28              | 24.15    | 24.21      | 1   | 24.70            | 17.90              | 17.95    | 17.98      | 0   | 18.00            |
|             |       | 1                | 5            | 24.28              | 24.16    | 24.22      | 1   | 24.70            | 17.96              | 17.96    | 17.95      | 0   | 18.00            |
|             | 64QAM | 3                | 0            | 24.44              | 24.33    | 24.38      | 1   | 24.70            | 17.84              | 17.69    | 17.80      | 0   | 18.00            |
|             |       | 3                | 1            | 24.39              | 24.27    | 24.35      | 1   | 24.70            | 17.83              | 17.68    | 17.80      | 0   | 18.00            |
|             |       | 3                | 3            | 24.38              | 24.29    | 24.37      | 1   | 24.70            | 17.82              | 17.69    | 17.81      | 0   | 18.00            |
|             |       | 6                | 0            | 23.32              | 23.25    | 23.33      | 2   | 23.70            | 17.74              | 17.50    | 17.73      | 0   | 18.00            |
|             |       | 1                | 0            | 23.54              | 23.28    | 23.36      | 2   | 23.70            | 17.99              | 17.80    | 17.76      | 0   | 18.00            |
|             |       | 1                | 3            | 23.57              | 23.21    | 23.35      | 2   | 23.70            | 18.00              | 17.77    | 17.91      | 0   | 18.00            |
|             | QPSK  | 1                | 5            | 25.44              | 25.32    | 25.40      | 0   | 25.70            | 17.85              | 17.72    | 17.83      | 0   | 18.00            |
|             |       | 3                | 0            | 25.27              | 25.16    | 25.24      | 0   | 25.70            | 17.78              | 17.59    | 17.68      | 0   | 18.00            |
|             |       | 3                | 1            | 25.23              | 25.14    | 25.23      | 0   | 25.70            | 17.78              | 17.58    | 17.66      | 0   | 18.00            |
|             |       | 3                | 3            | 25.23              | 25.17    | 25.24      | 0   | 25.70            | 17.78              | 17.59    | 17.68      | 0   | 18.00            |
|             |       | 6                | 0            | 24.21              | 24.14    | 24.19      | 1   | 24.70            | 17.73              | 17.59    | 17.62      | 0   | 18.00            |
|             |       | 1                | 0            | 24.33              | 24.19    | 24.26      | 1   | 24.70            | 17.97              | 17.90    | 17.97      | 0   | 18.00            |
|             | 16QAM | 1                | 3            | 24.28              | 24.15    | 24.21      | 1   | 24.70            | 17.90              | 17.95    | 17.98      | 0   | 18.00            |
|             |       | 1                | 5            | 24.28              | 24.16    | 24.22      | 1   | 24.70            | 17.96              | 17.96    | 17.95      | 0   | 18.00            |
|             |       | 3                | 0            | 24.44              | 24.33    | 24.38      | 1   | 24.70            | 17.84              | 17.69    | 17.80      | 0   | 18.00            |
|             |       | 3                | 1            | 24.39              | 24.27    | 24.35      | 1   | 24.70            | 17.83              | 17.68    | 17.80      | 0   | 18.00            |
|             |       | 3                | 3            | 24.38              | 24.29    | 24.37      | 1   | 24.70            | 17.82              | 17.69    | 17.81      | 0   | 18.00            |
|             |       | 6                | 0            | 23.32              | 23.25    | 23.33      | 2   | 23.70            | 17.74              | 17.50    | 17.73      | 0   | 18.00            |
|             | 64QAM | 1                | 0            | 23.54              | 23.28    | 23.36      | 2   | 23.70            | 17.99              | 17.80    | 17.76      | 0   | 18.00            |
|             |       | 1                | 3            | 23.57              | 23.21    | 23.35      | 2   | 23.70            | 18.00              | 17.77    | 17.91      | 0   | 18.00            |
|             |       | 1                | 5            | 23.60              | 23.25    | 23.36      | 2   | 23.70            | 17.91              | 17.80    | 17.75      | 0   | 18.00            |
|             |       | 3                | 0            | 23.29              | 23.00    | 23.03      | 2   | 23.70            | 17.80              | 17.76    | 17.74      | 0   | 18.00            |
|             |       | 3                | 1            | 23.30              | 22.98    | 23.06      | 2   | 23.70            | 17.81              | 17.77    | 17.71      | 0   | 18.00            |
|             |       | 3                | 3            | 23.29              | 22.97    | 23.06      | 2   | 23.70            | 17.83              | 17.76    | 17.71      | 0   | 18.00            |
|             |       | 6                | 0            | 22.52              | 22.40    | 22.27      | 3   | 22.70            | 17.98              | 17.83    | 17.72      | 0   | 18.00            |
|             |       |                  |              |                    |          |            |     |                  |                    |          |            |     |                  |
|             |       |                  |              |                    |          |            |     |                  |                    |          |            |     |                  |
|             |       |                  |              |                    |          |            |     |                  |                    |          |            |     |                  |
|             |       |                  |              |                    |          |            |     |                  |                    |          |            |     |                  |

**LTE Band 66 Measured Results (ANT2)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |          |          |     |                  | Power Mode B (dBm) |          |          |     |                  |
|-------------|-------|------------------|--------------|--------------------|----------|----------|-----|------------------|--------------------|----------|----------|-----|------------------|
|             |       |                  |              | 132072             | 132322   | 132572   | MPR | Tune-up<br>Limit | 132072             | 132322   | 132572   | MPR | Tune-up<br>Limit |
|             |       |                  |              | 1720 MHz           | 1745 MHz | 1770 MHz |     |                  | 1720 MHz           | 1745 MHz | 1770 MHz |     |                  |
| 20 MHz      | QPSK  | 1                | 0            | 21.80              | 21.80    | 21.90    | 0   | 22.00            | 19.95              | 19.75    | 19.72    | 0   | 20.00            |
|             |       | 1                | 49           | 21.80              | 21.80    | 21.90    | 0   | 22.00            | 20.00              | 19.90    | 20.00    | 0   | 20.00            |
|             |       | 1                | 99           | 21.80              | 21.70    | 21.90    | 0   | 22.00            | 19.64              | 19.69    | 19.54    | 0   | 20.00            |
|             |       | 50               | 0            | 21.69              | 21.40    | 21.34    | 0   | 22.00            | 19.92              | 19.76    | 19.71    | 0   | 20.00            |
|             |       | 50               | 24           | 21.70              | 21.50    | 21.80    | 0   | 22.00            | 20.00              | 19.80    | 20.00    | 0   | 20.00            |
|             |       | 50               | 50           | 21.45              | 21.48    | 21.31    | 0   | 22.00            | 19.71              | 19.85    | 19.56    | 0   | 20.00            |
|             | 16QAM | 100              | 0            | 21.50              | 21.50    | 21.50    | 0   | 22.00            | 20.00              | 20.00    | 20.00    | 0   | 20.00            |
|             |       | 1                | 0            | 21.95              | 21.67    | 21.64    | 0   | 22.00            | 19.98              | 19.96    | 19.91    | 0   | 20.00            |
|             |       | 1                | 49           | 21.90              | 21.64    | 21.67    | 0   | 22.00            | 19.91              | 20.00    | 20.00    | 0   | 20.00            |
|             |       | 1                | 99           | 21.67              | 21.70    | 21.60    | 0   | 22.00            | 19.96              | 19.95    | 19.81    | 0   | 20.00            |
|             |       | 50               | 0            | 20.67              | 20.64    | 20.60    | 0.5 | 21.50            | 19.96              | 19.80    | 19.70    | 0   | 20.00            |
|             |       | 50               | 24           | 20.61              | 20.68    | 20.64    | 0.5 | 21.50            | 19.84              | 19.79    | 19.72    | 0   | 20.00            |
|             | 64QAM | 50               | 50           | 20.67              | 20.74    | 20.55    | 0.5 | 21.50            | 19.76              | 19.84    | 19.60    | 0   | 20.00            |
|             |       | 100              | 0            | 20.59              | 20.65    | 20.63    | 0.5 | 21.50            | 19.85              | 19.79    | 19.70    | 0   | 20.00            |
|             |       | 1                | 0            | 20.72              | 20.79    | 20.87    | 0.5 | 21.50            | 19.68              | 19.83    | 19.87    | 0   | 20.00            |
|             |       | 1                | 49           | 20.68              | 20.95    | 20.79    | 0.5 | 21.50            | 19.47              | 19.93    | 19.85    | 0   | 20.00            |
|             |       | 1                | 99           | 20.59              | 20.92    | 20.77    | 0.5 | 21.50            | 19.44              | 19.93    | 19.85    | 0   | 20.00            |
|             |       | 50               | 0            | 19.71              | 19.62    | 19.57    | 1.5 | 20.50            | 19.49              | 19.63    | 19.59    | 0   | 20.00            |
| 15 MHz      | QPSK  | 50               | 24           | 19.64              | 19.67    | 19.57    | 1.5 | 20.50            | 19.41              | 19.65    | 19.57    | 0   | 20.00            |
|             |       | 50               | 50           | 19.63              | 19.62    | 19.70    | 1.5 | 20.50            | 19.42              | 19.65    | 19.52    | 0   | 20.00            |
|             |       | 100              | 0            | 19.62              | 19.62    | 19.55    | 1.5 | 20.50            | 19.43              | 19.63    | 19.55    | 0   | 20.00            |
|             | 16QAM | 1                | 0            | 21.99              | 21.99    | 21.94    | 0   | 22.00            | 19.94              | 19.76    | 19.70    | 0   | 20.00            |
|             |       | 1                | 37           | 21.91              | 21.97    | 21.91    | 0   | 22.00            | 19.89              | 19.73    | 19.68    | 0   | 20.00            |
|             |       | 1                | 74           | 21.99              | 21.96    | 21.95    | 0   | 22.00            | 19.69              | 19.72    | 19.54    | 0   | 20.00            |
|             | 64QAM | 36               | 0            | 21.67              | 21.37    | 21.36    | 0   | 22.00            | 19.93              | 19.71    | 19.73    | 0   | 20.00            |
|             |       | 36               | 20           | 21.57              | 21.42    | 21.33    | 0   | 22.00            | 19.93              | 19.71    | 19.64    | 0   | 20.00            |
|             |       | 36               | 39           | 21.50              | 21.52    | 21.28    | 0   | 22.00            | 19.87              | 19.81    | 19.60    | 0   | 20.00            |
| 10 MHz      | QPSK  | 75               | 0            | 21.53              | 21.43    | 21.29    | 0   | 22.00            | 19.86              | 19.68    | 19.62    | 0   | 20.00            |
|             |       | 1                | 0            | 21.96              | 21.76    | 21.71    | 0   | 22.00            | 19.99              | 19.90    | 19.95    | 0   | 20.00            |
|             | 16QAM | 1                | 37           | 21.85              | 21.79    | 21.69    | 0   | 22.00            | 19.91              | 19.92    | 19.92    | 0   | 20.00            |
|             |       | 1                | 74           | 21.60              | 21.78    | 21.62    | 0   | 22.00            | 19.95              | 19.97    | 19.80    | 0   | 20.00            |
|             |       | 36               | 0            | 20.74              | 20.70    | 20.69    | 0.5 | 21.50            | 19.92              | 19.72    | 19.78    | 0   | 20.00            |
|             |       | 36               | 20           | 20.66              | 20.66    | 20.62    | 0.5 | 21.50            | 19.92              | 19.70    | 19.68    | 0   | 20.00            |
|             | 64QAM | 36               | 39           | 20.60              | 20.79    | 20.60    | 0.5 | 21.50            | 19.87              | 19.83    | 19.63    | 0   | 20.00            |
|             |       | 75               | 0            | 20.61              | 20.71    | 20.59    | 0.5 | 21.50            | 19.87              | 19.74    | 19.65    | 0   | 20.00            |
|             | 16QAM | 1                | 0            | 20.79              | 20.74    | 20.71    | 0.5 | 21.50            | 19.95              | 19.77    | 19.71    | 0   | 20.00            |
|             |       | 1                | 37           | 20.71              | 20.78    | 20.61    | 0.5 | 21.50            | 19.71              | 19.86    | 19.64    | 0   | 20.00            |
|             |       | 1                | 74           | 20.63              | 20.77    | 20.65    | 0.5 | 21.50            | 19.62              | 19.87    | 19.62    | 0   | 20.00            |
|             |       | 36               | 0            | 19.67              | 19.65    | 19.66    | 1.5 | 20.50            | 19.50              | 19.68    | 19.68    | 0   | 20.00            |
|             | 64QAM | 36               | 20           | 19.69              | 19.69    | 19.55    | 1.5 | 20.50            | 19.62              | 19.74    | 19.57    | 0   | 20.00            |
|             |       | 36               | 39           | 19.64              | 19.68    | 19.54    | 1.5 | 20.50            | 19.57              | 19.73    | 19.56    | 0   | 20.00            |
|             |       | 75               | 0            | 19.64              | 19.63    | 19.69    | 1.5 | 20.50            | 19.55              | 19.68    | 19.52    | 0   | 20.00            |
| 10 MHz      | QPSK  | 1                | 0            | 21.92              | 21.96    | 21.99    | 0   | 22.00            | 19.95              | 19.68    | 19.82    | 0   | 20.00            |
|             |       | 1                | 25           | 21.99              | 21.93    | 21.98    | 0   | 22.00            | 19.88              | 19.65    | 19.68    | 0   | 20.00            |
|             |       | 1                | 49           | 21.98              | 21.98    | 21.96    | 0   | 22.00            | 19.86              | 19.83    | 19.59    | 0   | 20.00            |
|             |       | 25               | 0            | 21.68              | 21.40    | 21.35    | 0   | 22.00            | 19.96              | 19.69    | 19.70    | 0   | 20.00            |
|             |       | 25               | 12           | 21.61              | 21.38    | 21.31    | 0   | 22.00            | 19.90              | 19.67    | 19.66    | 0   | 20.00            |
|             |       | 25               | 25           | 21.54              | 21.50    | 21.26    | 0   | 22.00            | 19.87              | 19.82    | 19.60    | 0   | 20.00            |
|             | 16QAM | 50               | 0            | 21.61              | 21.44    | 21.31    | 0   | 22.00            | 19.90              | 19.78    | 19.66    | 0   | 20.00            |
|             |       | 1                | 0            | 21.91              | 21.76    | 21.77    | 0   | 22.00            | 19.99              | 20.00    | 19.96    | 0   | 20.00            |
|             |       | 1                | 25           | 21.89              | 21.70    | 21.61    | 0   | 22.00            | 19.92              | 19.91    | 19.93    | 0   | 20.00            |
|             |       | 1                | 49           | 21.76              | 21.86    | 21.62    | 0   | 22.00            | 19.92              | 19.98    | 19.96    | 0   | 20.00            |
|             |       | 25               | 0            | 20.75              | 20.64    | 20.61    | 0.5 | 21.50            | 19.94              | 19.75    | 19.75    | 0   | 20.00            |
|             |       | 25               | 12           | 20.66              | 20.64    | 20.56    | 0.5 | 21.50            | 19.98              | 19.72    | 19.72    | 0   | 20.00            |
|             | 64QAM | 25               | 25           | 20.62              | 20.77    | 20.50    | 0.5 | 21.50            | 19.96              | 19.86    | 19.66    | 0   | 20.00            |
|             |       | 50               | 0            | 20.64              | 20.69    | 20.57    | 0.5 | 21.50            | 19.94              | 19.80    | 19.74    | 0   | 20.00            |
|             |       | 1                | 0            | 20.79              | 20.84    | 20.78    | 0.5 | 21.50            | 19.81              | 19.87    | 19.78    | 0   | 20.00            |
|             |       | 1                | 25           | 20.60              | 20.85    | 20.69    | 0.5 | 21.50            | 19.58              | 19.88    | 19.77    | 0   | 20.00            |
|             |       | 1                | 49           | 20.60              | 20.92    | 20.72    | 0.5 | 21.50            | 19.62              | 19.91    | 19.80    | 0   | 20.00            |
|             |       | 25               | 0            | 19.59              | 19.64    | 19.61    | 1.5 | 20.50            | 19.63              | 19.71    | 19.61    | 0   | 20.00            |
|             | 64QAM | 25               | 12           | 19.50              | 19.69    | 19.59    | 1.5 | 20.50            | 19.53              | 19.75    | 19.60    | 0   | 20.00            |
|             |       | 25               | 25           | 19.53              | 19.71    | 19.58    | 1.5 | 20.50            | 19.61              | 19.77    | 19.61    | 0   | 20.00            |
|             |       | 50               | 0            | 19.52              | 19.69    | 19.59    | 1.5 | 20.50            | 19.55              | 19.75    | 19.62    | 0   | 20.00            |
|             |       | 50               | 0            | 19.52              | 19.69    | 19.59    | 1.5 | 20.50            | 19.55              | 19.75    | 19.62    | 0   | 20.00            |

**LTE Band 66 Measured Results (ANT2) (continued)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |          |            |     |                  | Power Mode B (dBm) |          |            |     |                  |
|-------------|-------|------------------|--------------|--------------------|----------|------------|-----|------------------|--------------------|----------|------------|-----|------------------|
|             |       |                  |              | 131997             | 132322   | 132647     | MPR | Tune-up<br>Limit | 131997             | 132322   | 132647     | MPR | Tune-up<br>Limit |
|             |       |                  |              | 1712.5 MHz         | 1745 MHz | 1777.5 MHz |     |                  | 1712.5 MHz         | 1745 MHz | 1777.5 MHz |     |                  |
| 5 MHz       | QPSK  | 1                | 0            | 21.91              | 21.95    | 21.99      | 0   | 22.00            | 19.84              | 19.59    | 19.61      | 0   | 20.00            |
|             |       | 1                | 12           | 22.00              | 21.97    | 21.93      | 0   | 22.00            | 19.85              | 19.62    | 19.51      | 0   | 20.00            |
|             |       | 1                | 24           | 21.94              | 21.97    | 21.91      | 0   | 22.00            | 19.83              | 19.67    | 19.59      | 0   | 20.00            |
|             |       | 12               | 0            | 21.90              | 21.91    | 21.91      | 0   | 22.00            | 19.80              | 19.50    | 19.55      | 0   | 20.00            |
|             |       | 12               | 7            | 22.00              | 21.90    | 21.96      | 0   | 22.00            | 19.80              | 19.48    | 19.47      | 0   | 20.00            |
|             |       | 12               | 13           | 21.90              | 21.93    | 21.93      | 0   | 22.00            | 19.82              | 19.55    | 19.46      | 0   | 20.00            |
|             | 16QAM | 25               | 0            | 21.90              | 21.94    | 21.96      | 0   | 22.00            | 19.79              | 19.56    | 19.46      | 0   | 20.00            |
|             |       | 1                | 0            | 21.99              | 21.94    | 21.99      | 0   | 22.00            | 19.96              | 19.84    | 19.94      | 0   | 20.00            |
|             |       | 1                | 12           | 21.91              | 21.91    | 21.98      | 0   | 22.00            | 19.99              | 19.91    | 19.89      | 0   | 20.00            |
|             |       | 1                | 24           | 21.97              | 22.00    | 22.00      | 0   | 22.00            | 19.99              | 19.96    | 19.94      | 0   | 20.00            |
|             |       | 12               | 0            | 21.48              | 21.43    | 21.44      | 0.5 | 21.50            | 19.79              | 19.51    | 19.58      | 0   | 20.00            |
|             |       | 12               | 7            | 21.46              | 21.49    | 21.47      | 0.5 | 21.50            | 19.81              | 19.48    | 19.48      | 0   | 20.00            |
|             | 64QAM | 12               | 13           | 21.44              | 21.49    | 21.47      | 0.5 | 21.50            | 19.79              | 19.55    | 19.47      | 0   | 20.00            |
|             |       | 25               | 0            | 21.45              | 21.49    | 21.47      | 0.5 | 21.50            | 19.78              | 19.54    | 19.46      | 0   | 20.00            |
|             |       | 1                | 0            | 20.76              | 20.78    | 20.84      | 0.5 | 21.50            | 19.85              | 19.91    | 19.86      | 0   | 20.00            |
|             |       | 1                | 12           | 20.65              | 20.80    | 20.80      | 0.5 | 21.50            | 19.72              | 19.86    | 19.83      | 0   | 20.00            |
|             |       | 1                | 24           | 20.68              | 20.85    | 20.83      | 0.5 | 21.50            | 19.68              | 19.88    | 19.84      | 0   | 20.00            |
|             |       | 12               | 0            | 19.65              | 19.72    | 19.64      | 1.5 | 20.50            | 19.52              | 19.48    | 19.42      | 0   | 20.00            |
| 3 MHz       | QPSK  | 12               | 7            | 19.60              | 19.72    | 19.64      | 1.5 | 20.50            | 19.46              | 19.57    | 19.41      | 0   | 20.00            |
|             |       | 12               | 13           | 19.51              | 19.67    | 19.64      | 1.5 | 20.50            | 19.37              | 19.58    | 19.43      | 0   | 20.00            |
|             |       | 25               | 0            | 19.54              | 19.67    | 19.62      | 1.5 | 20.50            | 19.42              | 19.59    | 19.41      | 0   | 20.00            |
|             | 16QAM | 1                | 0            | 21.99              | 21.95    | 21.91      | 0   | 22.00            | 19.78              | 19.49    | 19.44      | 0   | 20.00            |
|             |       | 1                | 8            | 21.93              | 21.93    | 21.94      | 0   | 22.00            | 19.82              | 19.61    | 19.49      | 0   | 20.00            |
|             |       | 1                | 14           | 21.98              | 21.99    | 21.97      | 0   | 22.00            | 19.80              | 19.52    | 19.47      | 0   | 20.00            |
|             |       | 8                | 0            | 21.42              | 21.19    | 21.07      | 0   | 22.00            | 19.67              | 19.40    | 19.34      | 0   | 20.00            |
|             |       | 8                | 4            | 21.42              | 21.19    | 21.05      | 0   | 22.00            | 19.67              | 19.38    | 19.33      | 0   | 20.00            |
|             |       | 8                | 7            | 21.42              | 21.25    | 21.05      | 0   | 22.00            | 19.68              | 19.44    | 19.33      | 0   | 20.00            |
|             | 64QAM | 15               | 0            | 21.45              | 21.24    | 21.06      | 0   | 22.00            | 19.67              | 19.49    | 19.31      | 0   | 20.00            |
|             |       | 1                | 0            | 21.78              | 21.56    | 21.41      | 0   | 22.00            | 19.92              | 19.76    | 19.72      | 0   | 20.00            |
|             |       | 1                | 8            | 21.89              | 21.64    | 21.44      | 0   | 22.00            | 19.95              | 19.86    | 19.81      | 0   | 20.00            |
|             |       | 1                | 14           | 21.83              | 21.62    | 21.47      | 0   | 22.00            | 19.95              | 19.69    | 19.74      | 0   | 20.00            |
|             |       | 8                | 0            | 20.94              | 21.44    | 21.49      | 0.5 | 21.50            | 19.68              | 19.41    | 19.32      | 0   | 20.00            |
|             |       | 8                | 4            | 20.96              | 21.46    | 21.47      | 0.5 | 21.50            | 19.68              | 19.36    | 19.31      | 0   | 20.00            |
| 1.4 MHz     | QPSK  | 8                | 7            | 20.95              | 21.45    | 21.46      | 0.5 | 21.50            | 19.68              | 19.42    | 19.30      | 0   | 20.00            |
|             |       | 15               | 0            | 20.94              | 21.44    | 21.45      | 0.5 | 21.50            | 19.63              | 19.41    | 19.29      | 0   | 20.00            |
|             | 16QAM | 1                | 0            | 20.66              | 20.61    | 20.52      | 0.5 | 21.50            | 19.68              | 19.66    | 19.61      | 0   | 20.00            |
|             |       | 1                | 8            | 20.55              | 20.64    | 20.58      | 0.5 | 21.50            | 19.70              | 19.79    | 19.76      | 0   | 20.00            |
|             |       | 1                | 14           | 20.67              | 20.62    | 20.52      | 0.5 | 21.50            | 19.56              | 19.72    | 19.58      | 0   | 20.00            |
|             |       | 8                | 0            | 19.70              | 19.76    | 19.70      | 1.5 | 20.50            | 19.42              | 19.47    | 19.38      | 0   | 20.00            |
|             | 64QAM | 8                | 4            | 19.65              | 19.77    | 19.69      | 1.5 | 20.50            | 19.33              | 19.44    | 19.37      | 0   | 20.00            |
|             |       | 8                | 7            | 19.64              | 19.76    | 19.67      | 1.5 | 20.50            | 19.33              | 19.45    | 19.37      | 0   | 20.00            |
|             |       | 15               | 0            | 19.63              | 19.71    | 19.61      | 1.5 | 20.50            | 19.32              | 19.38    | 19.30      | 0   | 20.00            |
|             | QPSK  | 1                | 0            | 21.91              | 22.00    | 21.88      | 0   | 22.00            | 19.80              | 19.56    | 19.61      | 0   | 20.00            |
|             |       | 1                | 3            | 21.90              | 21.91    | 21.89      | 0   | 22.00            | 19.78              | 19.55    | 19.50      | 0   | 20.00            |
|             |       | 1                | 5            | 21.95              | 21.90    | 21.98      | 0   | 22.00            | 19.81              | 19.59    | 19.59      | 0   | 20.00            |
|             |       | 3                | 0            | 21.92              | 21.90    | 21.83      | 0   | 22.00            | 19.70              | 19.43    | 19.43      | 0   | 20.00            |
|             |       | 3                | 1            | 21.92              | 21.89    | 21.82      | 0   | 22.00            | 19.70              | 19.40    | 19.43      | 0   | 20.00            |
|             |       | 3                | 3            | 21.92              | 21.96    | 21.82      | 0   | 22.00            | 19.69              | 19.48    | 19.42      | 0   | 20.00            |
|             | 16QAM | 6                | 0            | 21.47              | 21.13    | 21.02      | 0   | 22.00            | 19.69              | 19.42    | 19.43      | 0   | 20.00            |
|             |       | 1                | 0            | 21.88              | 21.51    | 21.36      | 0   | 22.00            | 20.00              | 19.82    | 19.89      | 0   | 20.00            |
|             |       | 1                | 3            | 21.92              | 21.41    | 21.39      | 0   | 22.00            | 19.92              | 19.78    | 19.78      | 0   | 20.00            |
|             |       | 1                | 5            | 21.93              | 21.63    | 21.44      | 0   | 22.00            | 20.00              | 19.84    | 19.81      | 0   | 20.00            |
|             |       | 3                | 0            | 21.63              | 21.27    | 21.13      | 0   | 22.00            | 19.78              | 19.55    | 19.51      | 0   | 20.00            |
|             |       | 3                | 1            | 21.58              | 21.30    | 21.13      | 0   | 22.00            | 19.76              | 19.55    | 19.53      | 0   | 20.00            |
|             | 64QAM | 3                | 3            | 21.59              | 21.33    | 21.12      | 0   | 22.00            | 19.76              | 19.60    | 19.47      | 0   | 20.00            |
|             |       | 6                | 0            | 20.52              | 20.52    | 20.56      | 0.5 | 21.50            | 19.59              | 19.54    | 19.31      | 0   | 20.00            |
|             |       | 1                | 0            | 20.87              | 20.66    | 20.56      | 0.5 | 21.50            | 19.77              | 19.75    | 19.78      | 0   | 20.00            |
|             |       | 1                | 3            | 20.88              | 20.72    | 20.54      | 0.5 | 21.50            | 19.83              | 19.72    | 19.79      | 0   | 20.00            |
|             |       | 1                | 5            | 21.01              | 20.88    | 20.67      | 0.5 | 21.50            | 19.81              | 19.77    | 19.83      | 0   | 20.00            |
|             |       | 3                | 0            | 20.75              | 20.64    | 20.56      | 0.5 | 21.50            | 19.49              | 19.57    | 19.54      | 0   | 20.00            |
|             | 64QAM | 3                | 1            | 20.75              | 20.64    | 20.55      | 0.5 | 21.50            | 19.49              | 19.58    | 19.52      | 0   | 20.00            |
|             |       | 3                | 3            | 20.72              | 20.63    | 20.56      | 0.5 | 21.50            | 19.52              | 19.51    | 19.52      | 0   | 20.00            |
|             |       | 6                | 0            | 19.58              | 19.58    | 19.59      | 1.5 | 20.50            | 19.44              | 19.46    | 19.37      | 0   | 20.00            |
|             |       |                  |              |                    |          |            |     |                  |                    |          |            |     |                  |

**LTE Band 66 Measured Results (ANT3)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |          |          |     |                  | Power Mode B (dBm) |          |          |     |                  |
|-------------|-------|------------------|--------------|--------------------|----------|----------|-----|------------------|--------------------|----------|----------|-----|------------------|
|             |       |                  |              | 132072             | 132322   | 132572   | MPR | Tune-up<br>Limit | 132072             | 132322   | 132572   | MPR | Tune-up<br>Limit |
|             |       |                  |              | 1720 MHz           | 1745 MHz | 1770 MHz |     |                  | 1720 MHz           | 1745 MHz | 1770 MHz |     |                  |
| 20 MHz      | QPSK  | 1                | 0            | 24.70              | 24.80    | 24.80    | 0   | 25.00            | 21.50              | 21.70    | 21.67    | 0   | 21.75            |
|             |       | 1                | 49           | 24.75              | 24.80    | 24.86    | 0   | 25.00            | 21.60              | 21.70    | 21.70    | 0   | 21.75            |
|             |       | 1                | 99           | 24.70              | 24.80    | 24.80    | 0   | 25.00            | 21.50              | 21.66    | 21.64    | 0   | 21.75            |
|             |       | 50               | 0            | 23.86              | 23.80    | 23.90    | 1   | 24.00            | 21.60              | 21.57    | 21.70    | 0   | 21.75            |
|             |       | 50               | 24           | 23.86              | 23.80    | 23.90    | 1   | 24.00            | 21.60              | 21.70    | 21.70    | 0   | 21.75            |
|             |       | 50               | 50           | 23.84              | 23.70    | 23.89    | 1   | 24.00            | 21.50              | 21.62    | 21.69    | 0   | 21.75            |
|             | 16QAM | 100              | 0            | 23.73              | 23.85    | 23.80    | 1   | 24.00            | 21.60              | 21.70    | 21.70    | 0   | 21.75            |
|             |       | 1                | 0            | 23.83              | 23.99    | 23.95    | 1   | 24.00            | 21.41              | 21.23    | 21.31    | 0   | 21.75            |
|             |       | 1                | 49           | 23.74              | 23.98    | 23.91    | 1   | 24.00            | 21.28              | 21.24    | 21.32    | 0   | 21.75            |
|             |       | 1                | 99           | 23.99              | 23.97    | 23.71    | 1   | 24.00            | 21.19              | 21.26    | 21.51    | 0   | 21.75            |
|             |       | 50               | 0            | 22.86              | 22.94    | 22.95    | 2   | 23.00            | 21.07              | 21.07    | 21.06    | 0   | 21.75            |
|             |       | 50               | 24           | 22.80              | 22.88    | 22.93    | 2   | 23.00            | 21.62              | 21.69    | 21.06    | 0   | 21.75            |
|             | 64QAM | 50               | 50           | 22.89              | 22.90    | 22.91    | 2   | 23.00            | 21.69              | 21.71    | 21.75    | 0   | 21.75            |
|             |       | 100              | 0            | 22.78              | 22.85    | 22.92    | 2   | 23.00            | 21.58              | 21.67    | 21.05    | 0   | 21.75            |
|             |       | 1                | 0            | 22.17              | 22.42    | 22.49    | 2   | 23.00            | 21.70              | 21.69    | 21.56    | 0   | 21.75            |
|             |       | 1                | 49           | 22.07              | 22.41    | 22.45    | 2   | 23.00            | 21.62              | 21.62    | 21.72    | 0   | 21.75            |
|             |       | 1                | 99           | 22.10              | 22.40    | 22.65    | 2   | 23.00            | 21.74              | 21.65    | 21.72    | 0   | 21.75            |
|             |       | 50               | 0            | 21.16              | 21.18    | 21.19    | 3   | 22.00            | 21.61              | 21.61    | 21.65    | 0   | 21.75            |
| 15 MHz      | QPSK  | 50               | 24           | 21.06              | 21.09    | 21.17    | 3   | 22.00            | 21.53              | 21.60    | 21.71    | 0   | 21.75            |
|             |       | 50               | 50           | 21.12              | 21.13    | 21.23    | 3   | 22.00            | 21.60              | 21.66    | 21.72    | 0   | 21.75            |
|             |       | 100              | 0            | 21.02              | 21.09    | 21.18    | 3   | 22.00            | 21.52              | 21.58    | 21.70    | 0   | 21.75            |
|             | 16QAM | 1                | 0            | 24.74              | 24.93    | 24.94    | 0   | 25.00            | 21.58              | 21.70    | 21.50    | 0   | 21.75            |
|             |       | 1                | 37           | 24.77              | 24.82    | 24.94    | 0   | 25.00            | 21.59              | 21.58    | 21.74    | 0   | 21.75            |
|             |       | 1                | 74           | 24.78              | 24.82    | 24.70    | 0   | 25.00            | 21.60              | 21.61    | 21.46    | 0   | 21.75            |
|             | 64QAM | 36               | 0            | 23.83              | 23.91    | 23.93    | 1   | 24.00            | 21.62              | 21.68    | 21.75    | 0   | 21.75            |
|             |       | 36               | 20           | 23.84              | 23.86    | 23.94    | 1   | 24.00            | 21.64              | 21.59    | 21.50    | 0   | 21.75            |
|             |       | 36               | 39           | 23.75              | 23.86    | 23.73    | 1   | 24.00            | 21.54              | 21.60    | 21.50    | 0   | 21.75            |
| 10 MHz      | QPSK  | 75               | 0            | 23.81              | 23.84    | 23.95    | 1   | 24.00            | 21.60              | 21.58    | 21.74    | 0   | 21.75            |
|             |       | 1                | 0            | 23.77              | 23.99    | 23.71    | 1   | 24.00            | 21.21              | 21.38    | 21.43    | 0   | 21.75            |
|             | 16QAM | 1                | 37           | 23.80              | 23.90    | 23.98    | 1   | 24.00            | 21.18              | 21.26    | 21.50    | 0   | 21.75            |
|             |       | 1                | 74           | 23.77              | 23.87    | 23.68    | 1   | 24.00            | 21.20              | 21.27    | 21.51    | 0   | 21.75            |
|             |       | 36               | 0            | 22.90              | 22.97    | 22.91    | 2   | 23.00            | 21.68              | 21.72    | 21.13    | 0   | 21.75            |
|             |       | 36               | 20           | 22.90              | 22.90    | 22.98    | 2   | 23.00            | 21.70              | 21.66    | 21.11    | 0   | 21.75            |
|             | 64QAM | 36               | 39           | 22.78              | 22.90    | 22.72    | 2   | 23.00            | 21.60              | 21.68    | 21.16    | 0   | 21.75            |
|             |       | 75               | 0            | 22.85              | 22.86    | 22.97    | 2   | 23.00            | 21.66              | 21.63    | 21.09    | 0   | 21.75            |
|             |       | 1                | 0            | 22.35              | 22.42    | 22.38    | 2   | 23.00            | 21.55              | 21.73    | 21.62    | 0   | 21.75            |
|             |       | 1                | 37           | 22.38              | 22.30    | 22.34    | 2   | 23.00            | 21.75              | 21.64    | 21.58    | 0   | 21.75            |
|             |       | 1                | 74           | 22.37              | 22.36    | 22.47    | 2   | 23.00            | 21.74              | 21.65    | 21.71    | 0   | 21.75            |
|             |       | 36               | 0            | 21.14              | 21.22    | 21.25    | 3   | 22.00            | 21.62              | 21.62    | 21.66    | 0   | 21.75            |
| 10 MHz      | QPSK  | 36               | 20           | 21.17              | 21.14    | 21.23    | 3   | 22.00            | 21.63              | 21.63    | 21.66    | 0   | 21.75            |
|             |       | 36               | 39           | 21.12              | 21.15    | 21.31    | 3   | 22.00            | 21.56              | 21.64    | 21.73    | 0   | 21.75            |
|             |       | 75               | 0            | 21.11              | 21.09    | 21.19    | 3   | 22.00            | 21.57              | 21.59    | 21.62    | 0   | 21.75            |
|             | 16QAM | 1                | 0            | 24.78              | 24.83    | 24.96    | 0   | 25.00            | 21.63              | 21.66    | 21.47    | 0   | 21.75            |
|             |       | 1                | 25           | 24.81              | 24.77    | 24.73    | 0   | 25.00            | 21.63              | 21.58    | 21.50    | 0   | 21.75            |
|             |       | 1                | 49           | 24.75              | 24.84    | 24.80    | 0   | 25.00            | 21.57              | 21.65    | 21.44    | 0   | 21.75            |
|             | 64QAM | 25               | 0            | 23.82              | 23.89    | 23.96    | 1   | 24.00            | 21.61              | 21.70    | 21.74    | 0   | 21.75            |
|             |       | 25               | 12           | 23.81              | 23.83    | 23.73    | 1   | 24.00            | 21.61              | 21.62    | 21.50    | 0   | 21.75            |
|             |       | 25               | 25           | 23.82              | 23.85    | 23.83    | 1   | 24.00            | 21.61              | 21.65    | 21.50    | 0   | 21.75            |
| 10 MHz      | QPSK  | 50               | 0            | 23.81              | 23.84    | 23.75    | 1   | 24.00            | 21.60              | 21.63    | 21.08    | 0   | 21.75            |
|             |       | 1                | 0            | 23.75              | 23.97    | 23.74    | 1   | 24.00            | 21.17              | 21.36    | 21.37    | 0   | 21.75            |
|             | 16QAM | 1                | 25           | 23.76              | 23.84    | 23.82    | 1   | 24.00            | 21.19              | 21.30    | 21.41    | 0   | 21.75            |
|             |       | 1                | 49           | 23.98              | 23.91    | 23.84    | 1   | 24.00            | 21.14              | 21.29    | 21.51    | 0   | 21.75            |
|             |       | 25               | 0            | 22.87              | 22.94    | 22.71    | 2   | 23.00            | 21.67              | 21.73    | 21.05    | 0   | 21.75            |
|             |       | 25               | 12           | 22.87              | 22.87    | 22.74    | 2   | 23.00            | 21.67              | 21.65    | 21.10    | 0   | 21.75            |
|             | 64QAM | 25               | 25           | 22.88              | 22.89    | 22.83    | 2   | 23.00            | 21.68              | 21.68    | 21.21    | 0   | 21.75            |
|             |       | 50               | 0            | 22.85              | 22.85    | 22.74    | 2   | 23.00            | 21.67              | 21.65    | 21.11    | 0   | 21.75            |
|             |       | 1                | 0            | 22.23              | 22.43    | 22.44    | 2   | 23.00            | 21.59              | 21.58    | 21.64    | 0   | 21.75            |
|             |       | 1                | 25           | 22.20              | 22.33    | 22.48    | 2   | 23.00            | 21.62              | 21.70    | 21.69    | 0   | 21.75            |
|             |       | 1                | 49           | 22.22              | 22.41    | 22.66    | 2   | 23.00            | 21.55              | 21.57    | 21.65    | 0   | 21.75            |
|             |       | 25               | 0            | 21.14              | 21.25    | 21.29    | 3   | 22.00            | 21.64              | 21.71    | 21.73    | 0   | 21.75            |
|             | 64QAM | 25               | 12           | 21.14              | 21.21    | 21.36    | 3   | 22.00            | 21.63              | 21.63    | 21.58    | 0   | 21.75            |
|             |       | 25               | 25           | 21.15              | 21.24    | 21.43    | 3   | 22.00            | 21.63              | 21.67    | 21.68    | 0   | 21.75            |
|             |       | 50               | 0            | 21.14              | 21.17    | 21.35    | 3   | 22.00            | 21.57              | 21.63    | 21.74    | 0   | 21.75            |

**LTE Band 66 Measured Results (ANT3) (continued)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |          |            |     |                  | Power Mode B (dBm) |          |            |     |                  |
|-------------|-------|------------------|--------------|--------------------|----------|------------|-----|------------------|--------------------|----------|------------|-----|------------------|
|             |       |                  |              | 131997             | 132322   | 132647     | MPR | Tune-up<br>Limit | 131997             | 132322   | 132647     | MPR | Tune-up<br>Limit |
|             |       |                  |              | 1712.5 MHz         | 1745 MHz | 1777.5 MHz |     |                  | 1712.5 MHz         | 1745 MHz | 1777.5 MHz |     |                  |
| 5 MHz       | QPSK  | 1                | 0            | 24.97              | 24.83    | 24.95      | 0   | 25.00            | 21.57              | 21.67    | 21.47      | 0   | 21.75            |
|             |       | 1                | 12           | 24.99              | 24.77    | 24.72      | 0   | 25.00            | 21.56              | 21.59    | 21.50      | 0   | 21.75            |
|             |       | 1                | 24           | 24.73              | 24.82    | 24.98      | 0   | 25.00            | 21.60              | 21.64    | 21.44      | 0   | 21.75            |
|             |       | 12               | 0            | 23.95              | 23.73    | 23.92      | 1   | 24.00            | 21.49              | 21.49    | 21.50      | 0   | 21.75            |
|             |       | 12               | 7            | 23.95              | 23.71    | 23.99      | 1   | 24.00            | 21.50              | 21.50    | 21.50      | 0   | 21.75            |
|             |       | 12               | 13           | 23.95              | 23.72    | 23.92      | 1   | 24.00            | 21.51              | 21.51    | 21.74      | 0   | 21.75            |
|             | 16QAM | 25               | 0            | 23.95              | 23.72    | 23.99      | 1   | 24.00            | 21.51              | 21.51    | 21.50      | 0   | 21.75            |
|             |       | 1                | 0            | 23.80              | 23.82    | 23.80      | 1   | 24.00            | 21.27              | 21.24    | 21.50      | 0   | 21.75            |
|             |       | 1                | 12           | 23.74              | 23.75    | 23.89      | 1   | 24.00            | 21.22              | 21.20    | 21.58      | 0   | 21.75            |
|             |       | 1                | 24           | 23.77              | 23.83    | 23.78      | 1   | 24.00            | 21.30              | 21.28    | 21.54      | 0   | 21.75            |
|             |       | 12               | 0            | 22.98              | 22.75    | 22.95      | 2   | 23.00            | 21.52              | 21.54    | 21.07      | 0   | 21.75            |
|             |       | 12               | 7            | 22.93              | 22.74    | 22.71      | 2   | 23.00            | 21.52              | 21.54    | 21.16      | 0   | 21.75            |
|             | 64QAM | 12               | 13           | 22.92              | 22.74    | 22.96      | 2   | 23.00            | 21.52              | 21.55    | 21.09      | 0   | 21.75            |
|             |       | 25               | 0            | 22.92              | 22.99    | 22.98      | 2   | 23.00            | 21.52              | 21.52    | 21.14      | 0   | 21.75            |
|             |       | 1                | 0            | 22.27              | 22.42    | 22.50      | 2   | 23.00            | 21.64              | 21.73    | 21.71      | 0   | 21.75            |
|             |       | 1                | 12           | 22.22              | 22.31    | 22.54      | 2   | 23.00            | 21.63              | 21.68    | 21.75      | 0   | 21.75            |
|             |       | 1                | 24           | 22.32              | 22.43    | 22.50      | 2   | 23.00            | 21.65              | 21.56    | 21.55      | 0   | 21.75            |
|             |       | 12               | 0            | 21.07              | 21.14    | 21.25      | 3   | 22.00            | 21.42              | 21.36    | 21.68      | 0   | 21.75            |
| 3 MHz       | QPSK  | 12               | 7            | 21.06              | 21.16    | 21.30      | 3   | 22.00            | 21.40              | 21.36    | 21.72      | 0   | 21.75            |
|             |       | 12               | 13           | 21.07              | 21.16    | 21.23      | 3   | 22.00            | 21.42              | 21.33    | 21.68      | 0   | 21.75            |
|             |       | 25               | 0            | 21.10              | 21.15    | 21.25      | 3   | 22.00            | 21.39              | 21.36    | 21.69      | 0   | 21.75            |
|             | 16QAM | 1                | 0            | 24.39              | 24.59    | 24.80      | 0   | 25.00            | 21.50              | 21.49    | 21.47      | 0   | 21.75            |
|             |       | 1                | 8            | 24.46              | 24.64    | 24.75      | 0   | 25.00            | 21.55              | 21.54    | 21.50      | 0   | 21.75            |
|             |       | 1                | 14           | 24.44              | 24.58    | 24.67      | 0   | 25.00            | 21.50              | 21.50    | 21.66      | 0   | 21.75            |
|             |       | 8                | 0            | 23.33              | 23.47    | 23.68      | 1   | 24.00            | 21.38              | 21.39    | 21.68      | 0   | 21.75            |
|             |       | 8                | 4            | 23.33              | 23.47    | 23.58      | 1   | 24.00            | 21.37              | 21.39    | 21.59      | 0   | 21.75            |
|             |       | 8                | 7            | 23.35              | 23.47    | 23.59      | 1   | 24.00            | 21.38              | 21.38    | 21.60      | 0   | 21.75            |
|             | 64QAM | 15               | 0            | 23.37              | 23.46    | 23.60      | 1   | 24.00            | 21.38              | 21.40    | 21.59      | 0   | 21.75            |
|             |       | 1                | 0            | 23.76              | 23.88    | 23.76      | 1   | 24.00            | 21.71              | 21.07    | 21.43      | 0   | 21.75            |
|             |       | 1                | 8            | 23.79              | 23.92    | 23.70      | 1   | 24.00            | 21.06              | 21.12    | 21.37      | 0   | 21.75            |
|             |       | 1                | 14           | 23.77              | 23.87    | 23.95      | 1   | 24.00            | 21.72              | 21.09    | 21.29      | 0   | 21.75            |
|             |       | 8                | 0            | 22.37              | 22.40    | 22.70      | 2   | 23.00            | 21.41              | 21.40    | 21.68      | 0   | 21.75            |
|             |       | 8                | 4            | 22.37              | 22.41    | 22.61      | 2   | 23.00            | 21.38              | 21.41    | 21.59      | 0   | 21.75            |
| 1.4 MHz     | QPSK  | 8                | 7            | 22.38              | 22.44    | 22.62      | 2   | 23.00            | 21.42              | 21.40    | 21.60      | 0   | 21.75            |
|             |       | 15               | 0            | 22.34              | 22.41    | 22.59      | 2   | 23.00            | 21.37              | 21.36    | 21.60      | 0   | 21.75            |
|             |       | 1                | 0            | 22.54              | 22.55    | 22.80      | 2   | 23.00            | 21.51              | 21.62    | 21.64      | 0   | 21.75            |
|             |       | 1                | 8            | 22.54              | 22.54    | 22.90      | 2   | 23.00            | 21.52              | 21.56    | 21.59      | 0   | 21.75            |
|             |       | 1                | 14           | 22.58              | 22.52    | 22.67      | 2   | 23.00            | 21.54              | 21.75    | 21.74      | 0   | 21.75            |
|             |       | 8                | 0            | 21.26              | 21.23    | 21.57      | 3   | 22.00            | 21.25              | 21.36    | 21.53      | 0   | 21.75            |
|             | 16QAM | 8                | 4            | 21.26              | 21.22    | 21.53      | 3   | 22.00            | 21.25              | 21.36    | 21.45      | 0   | 21.75            |
|             |       | 8                | 7            | 21.27              | 21.24    | 21.53      | 3   | 22.00            | 21.26              | 21.34    | 21.47      | 0   | 21.75            |
|             |       | 15               | 0            | 21.22              | 21.19    | 21.54      | 3   | 22.00            | 21.25              | 21.31    | 21.42      | 0   | 21.75            |
|             |       | 1                | 0            | 24.54              | 24.60    | 24.75      | 0   | 25.00            | 21.51              | 21.61    | 21.74      | 0   | 21.75            |
|             |       | 1                | 3            | 24.52              | 24.58    | 24.73      | 0   | 25.00            | 21.48              | 21.59    | 21.74      | 0   | 21.75            |
|             |       | 1                | 5            | 24.55              | 24.60    | 24.71      | 0   | 25.00            | 21.51              | 21.60    | 21.70      | 0   | 21.75            |
|             | 64QAM | 3                | 0            | 24.39              | 24.45    | 24.66      | 0   | 25.00            | 21.38              | 21.45    | 21.66      | 0   | 21.75            |
|             |       | 3                | 1            | 24.38              | 24.45    | 24.66      | 0   | 25.00            | 21.37              | 21.46    | 21.66      | 0   | 21.75            |
|             |       | 3                | 3            | 24.38              | 24.45    | 24.66      | 0   | 25.00            | 21.37              | 21.45    | 21.67      | 0   | 21.75            |
|             |       | 6                | 0            | 23.46              | 23.48    | 23.70      | 1   | 24.00            | 21.35              | 21.39    | 21.61      | 0   | 21.75            |
|             |       | 1                | 0            | 23.97              | 23.94    | 23.96      | 1   | 24.00            | 21.55              | 21.55    | 21.66      | 0   | 21.75            |
|             |       | 1                | 3            | 23.90              | 23.99    | 23.95      | 1   | 24.00            | 21.52              | 21.62    | 21.62      | 0   | 21.75            |
| 1.4 MHz     | 16QAM | 1                | 5            | 23.93              | 24.00    | 23.93      | 1   | 24.00            | 21.52              | 21.60    | 21.63      | 0   | 21.75            |
|             |       | 3                | 0            | 23.63              | 23.73    | 23.88      | 1   | 24.00            | 21.50              | 21.64    | 21.50      | 0   | 21.75            |
|             |       | 3                | 1            | 23.64              | 23.70    | 23.86      | 1   | 24.00            | 21.47              | 21.60    | 21.75      | 0   | 21.75            |
|             |       | 3                | 3            | 23.61              | 23.68    | 23.83      | 1   | 24.00            | 21.49              | 21.61    | 21.74      | 0   | 21.75            |
|             |       | 6                | 0            | 22.75              | 22.91    | 22.96      | 2   | 23.00            | 21.31              | 21.50    | 21.66      | 0   | 21.75            |
|             |       | 1                | 0            | 22.59              | 22.80    | 22.84      | 2   | 23.00            | 21.61              | 21.60    | 21.66      | 0   | 21.75            |
|             | 64QAM | 1                | 3            | 22.78              | 22.78    | 22.84      | 2   | 23.00            | 21.56              | 21.56    | 21.56      | 0   | 21.75            |
|             |       | 1                | 5            | 22.74              | 22.81    | 22.86      | 2   | 23.00            | 21.55              | 21.66    | 21.68      | 0   | 21.75            |
|             |       | 3                | 0            | 22.73              | 22.73    | 22.76      | 2   | 23.00            | 21.40              | 21.51    | 21.62      | 0   | 21.75            |
|             |       | 3                | 1            | 22.74              | 22.74    | 22.78      | 2   | 23.00            | 21.40              | 21.52    | 21.61      | 0   | 21.75            |
|             |       | 3                | 3            | 22.75              | 22.74    | 22.75      | 2   | 23.00            | 21.39              | 21.51    | 21.63      | 0   | 21.75            |
|             |       | 6                | 0            | 21.36              | 21.33    | 21.98      | 3   | 22.00            | 21.29              | 21.34    | 21.62      | 0   | 21.75            |

**LTE Band 66 Measured Results (ANT4)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |          |          |     |                  | Power Mode B (dBm) |          |          |      |                  |
|-------------|-------|------------------|--------------|--------------------|----------|----------|-----|------------------|--------------------|----------|----------|------|------------------|
|             |       |                  |              | 132072             | 132322   | 132572   | MPR | Tune-up<br>Limit | 132072             | 132322   | 132572   | MPR  | Tune-up<br>Limit |
|             |       |                  |              | 1720 MHz           | 1745 MHz | 1770 MHz |     |                  | 1720 MHz           | 1745 MHz | 1770 MHz |      |                  |
| 20 MHz      | QPSK  | 1                | 0            | 20.97              | 20.80    | 20.82    | 0   | 21.00            | 21.90              | 21.85    | 21.74    | 0    | 22.25            |
|             |       | 1                | 49           | 21.00              | 20.80    | 20.90    | 0   | 21.00            | 21.90              | 21.85    | 21.94    | 0    | 22.25            |
|             |       | 1                | 99           | 20.98              | 20.80    | 20.80    | 0   | 21.00            | 21.84              | 21.85    | 21.82    | 0    | 22.25            |
|             |       | 50               | 0            | 20.70              | 20.50    | 20.87    | 0   | 21.00            | 21.57              | 21.63    | 21.90    | 0.25 | 22.00            |
|             |       | 50               | 24           | 20.80              | 20.50    | 20.90    | 0   | 21.00            | 21.70              | 21.70    | 22.00    | 0.25 | 22.00            |
|             |       | 50               | 50           | 20.79              | 20.50    | 20.84    | 0   | 21.00            | 21.51              | 21.54    | 21.94    | 0.25 | 22.00            |
|             | 16QAM | 100              | 0            | 20.50              | 20.50    | 20.50    | 0   | 21.00            | 21.70              | 21.70    | 21.70    | 0.25 | 22.00            |
|             |       | 1                | 0            | 20.97              | 21.00    | 20.83    | 0   | 21.00            | 21.99              | 21.95    | 21.64    | 0.25 | 22.00            |
|             |       | 1                | 49           | 20.97              | 20.97    | 20.86    | 0   | 21.00            | 21.79              | 21.93    | 21.84    | 0.25 | 22.00            |
|             |       | 1                | 99           | 20.97              | 20.79    | 20.79    | 0   | 21.00            | 21.76              | 21.99    | 21.78    | 0.25 | 22.00            |
|             |       | 50               | 0            | 20.51              | 20.42    | 20.68    | 0   | 21.00            | 20.66              | 20.70    | 20.91    | 1.25 | 21.00            |
|             |       | 50               | 24           | 20.37              | 20.42    | 20.79    | 0   | 21.00            | 20.59              | 20.60    | 20.98    | 1.25 | 21.00            |
|             | 64QAM | 50               | 50           | 20.46              | 20.38    | 20.80    | 0   | 21.00            | 20.61              | 20.56    | 20.50    | 1.25 | 21.00            |
|             |       | 100              | 0            | 20.40              | 20.39    | 20.76    | 0   | 21.00            | 20.57              | 20.57    | 20.97    | 1.25 | 21.00            |
|             |       | 1                | 0            | 20.30              | 20.46    | 20.50    | 0   | 21.00            | 20.60              | 20.84    | 20.83    | 1.25 | 21.00            |
|             |       | 1                | 49           | 20.05              | 20.56    | 20.50    | 0   | 21.00            | 20.39              | 20.93    | 20.82    | 1.25 | 21.00            |
|             |       | 1                | 99           | 20.02              | 20.42    | 20.45    | 0   | 21.00            | 20.38              | 20.78    | 20.80    | 1.25 | 21.00            |
|             |       | 50               | 0            | 19.20              | 19.21    | 19.18    | 1   | 20.00            | 19.53              | 19.60    | 19.55    | 2.25 | 20.00            |
| 15 MHz      | QPSK  | 50               | 24           | 19.06              | 19.17    | 19.19    | 1   | 20.00            | 19.39              | 19.56    | 19.56    | 2.25 | 20.00            |
|             |       | 50               | 50           | 19.10              | 19.06    | 19.17    | 1   | 20.00            | 19.41              | 19.47    | 19.52    | 2.25 | 20.00            |
|             |       | 100              | 0            | 19.05              | 19.13    | 19.17    | 1   | 20.00            | 19.36              | 19.53    | 19.54    | 2.25 | 20.00            |
|             | 16QAM | 1                | 0            | 20.21              | 20.09    | 20.38    | 0   | 21.00            | 22.16              | 22.01    | 21.84    | 0    | 22.25            |
|             |       | 1                | 37           | 20.02              | 20.02    | 20.76    | 0   | 21.00            | 22.07              | 22.00    | 21.88    | 0    | 22.25            |
|             |       | 1                | 74           | 20.20              | 20.30    | 20.26    | 0   | 21.00            | 22.02              | 21.95    | 21.73    | 0    | 22.25            |
|             | 64QAM | 36               | 0            | 20.12              | 20.04    | 20.39    | 0   | 21.00            | 21.61              | 21.60    | 21.96    | 0.25 | 22.00            |
|             |       | 36               | 20           | 20.09              | 20.06    | 20.41    | 0   | 21.00            | 21.59              | 21.62    | 21.98    | 0.25 | 22.00            |
|             |       | 36               | 39           | 20.20              | 20.20    | 20.32    | 0   | 21.00            | 21.49              | 21.49    | 21.89    | 0.25 | 22.00            |
| 10 MHz      | QPSK  | 75               | 0            | 20.07              | 20.20    | 20.38    | 0   | 21.00            | 21.57              | 21.52    | 21.97    | 0.25 | 22.00            |
|             |       | 1                | 0            | 20.40              | 20.38    | 20.20    | 0   | 21.00            | 21.57              | 21.94    | 21.65    | 0.25 | 22.00            |
|             |       | 1                | 37           | 20.27              | 20.29    | 20.26    | 0   | 21.00            | 21.86              | 21.89    | 21.71    | 0.25 | 22.00            |
|             | 16QAM | 1                | 74           | 20.26              | 20.26    | 20.14    | 0   | 21.00            | 21.84              | 21.83    | 21.57    | 0.25 | 22.00            |
|             |       | 36               | 0            | 20.46              | 20.41    | 20.76    | 0   | 21.00            | 20.69              | 20.65    | 20.50    | 1.25 | 21.00            |
|             |       | 36               | 20           | 20.43              | 20.43    | 20.84    | 0   | 21.00            | 20.63              | 20.66    | 20.51    | 1.25 | 21.00            |
|             | 64QAM | 36               | 39           | 20.37              | 20.32    | 20.74    | 0   | 21.00            | 20.53              | 20.59    | 20.50    | 1.25 | 21.00            |
|             |       | 75               | 0            | 20.40              | 20.34    | 20.81    | 0   | 21.00            | 20.61              | 20.62    | 20.55    | 1.25 | 21.00            |
| 10 MHz      | QPSK  | 1                | 0            | 20.58              | 20.42    | 20.34    | 0   | 21.00            | 20.88              | 20.73    | 20.70    | 1.25 | 21.00            |
|             |       | 1                | 37           | 20.48              | 20.39    | 20.32    | 0   | 21.00            | 20.70              | 20.72    | 20.65    | 1.25 | 21.00            |
|             |       | 1                | 74           | 20.36              | 20.31    | 20.29    | 0   | 21.00            | 20.62              | 20.68    | 20.60    | 1.25 | 21.00            |
|             | 16QAM | 36               | 0            | 19.32              | 19.28    | 19.28    | 1   | 20.00            | 19.58              | 19.63    | 19.61    | 2.25 | 20.00            |
|             |       | 36               | 20           | 19.24              | 19.34    | 19.17    | 1   | 20.00            | 19.56              | 19.67    | 19.52    | 2.25 | 20.00            |
|             |       | 36               | 39           | 19.15              | 19.18    | 19.18    | 1   | 20.00            | 19.46              | 19.51    | 19.54    | 2.25 | 20.00            |
|             | 64QAM | 75               | 0            | 19.17              | 19.18    | 19.12    | 1   | 20.00            | 19.51              | 19.56    | 19.46    | 2.25 | 20.00            |
|             |       | 1                | 0            | 20.76              | 20.68    | 20.68    | 0   | 21.00            | 22.19              | 22.05    | 22.06    | 0    | 22.25            |
|             | QPSK  | 1                | 25           | 20.67              | 20.69    | 20.40    | 0   | 21.00            | 22.06              | 22.02    | 21.88    | 0    | 22.25            |
|             |       | 1                | 49           | 20.64              | 20.71    | 20.35    | 0   | 21.00            | 21.97              | 21.96    | 21.85    | 0    | 22.25            |
|             |       | 25               | 0            | 20.78              | 20.77    | 20.79    | 0   | 21.00            | 21.66              | 21.54    | 21.52    | 0.25 | 22.00            |
|             |       | 25               | 12           | 20.03              | 20.06    | 20.39    | 0   | 21.00            | 21.57              | 21.55    | 21.93    | 0.25 | 22.00            |
|             | 16QAM | 25               | 25           | 20.01              | 20.20    | 20.33    | 0   | 21.00            | 21.56              | 21.46    | 21.87    | 0.25 | 22.00            |
|             |       | 50               | 0            | 20.01              | 20.02    | 20.39    | 0   | 21.00            | 21.58              | 21.52    | 21.93    | 0.25 | 22.00            |
| 10 MHz      | QPSK  | 1                | 0            | 20.42              | 20.42    | 20.27    | 0   | 21.00            | 21.61              | 21.81    | 21.77    | 0.25 | 22.00            |
|             |       | 1                | 25           | 20.94              | 20.84    | 20.82    | 0   | 21.00            | 21.92              | 21.83    | 21.71    | 0.25 | 22.00            |
|             |       | 1                | 49           | 20.83              | 20.37    | 20.82    | 0   | 21.00            | 21.83              | 21.84    | 21.72    | 0.25 | 22.00            |
|             | 16QAM | 25               | 0            | 20.46              | 20.49    | 20.83    | 0   | 21.00            | 20.73              | 20.68    | 20.56    | 1.25 | 21.00            |
|             |       | 25               | 12           | 20.36              | 20.50    | 20.77    | 0   | 21.00            | 20.68              | 20.69    | 20.54    | 1.25 | 21.00            |
|             |       | 25               | 25           | 20.35              | 20.39    | 20.76    | 0   | 21.00            | 20.67              | 20.57    | 21.00    | 1.25 | 21.00            |
|             | 64QAM | 50               | 0            | 20.35              | 20.43    | 20.80    | 0   | 21.00            | 20.66              | 20.60    | 20.53    | 1.25 | 21.00            |
|             |       | 1                | 0            | 20.50              | 20.53    | 20.44    | 0   | 21.00            | 20.77              | 20.88    | 20.79    | 1.25 | 21.00            |
|             |       | 1                | 25           | 20.45              | 20.57    | 20.32    | 0   | 21.00            | 20.68              | 20.85    | 20.66    | 1.25 | 21.00            |
|             |       | 1                | 49           | 20.32              | 20.33    | 20.40    | 0   | 21.00            | 20.54              | 20.78    | 20.79    | 1.25 | 21.00            |
|             |       | 25               | 0            | 19.34              | 19.30    | 19.22    | 1   | 20.00            | 19.60              | 19.70    | 19.58    | 2.25 | 20.00            |
|             | 64QAM | 25               | 12           | 19.31              | 19.34    | 19.23    | 1   | 20.00            | 19.56              | 19.75    | 19.59    | 2.25 | 20.00            |
|             |       | 25               | 25           | 19.29              | 19.17    | 19.25    | 1   | 20.00            | 19.56              | 19.61    | 19.59    | 2.25 | 20.00            |
|             |       | 50               | 0            | 19.30              | 19.24    | 19.23    | 1   | 20.00            | 19.57              | 19.64    | 19.58    | 2.25 | 20.00            |

**LTE Band 66 Measured Results (ANT4) (continued)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |          |            |     |                  | Power Mode B (dBm) |          |            |      |                  |
|-------------|-------|------------------|--------------|--------------------|----------|------------|-----|------------------|--------------------|----------|------------|------|------------------|
|             |       |                  |              | 131997             | 132322   | 132647     | MPR | Tune-up<br>Limit | 131997             | 132322   | 132647     | MPR  | Tune-up<br>Limit |
|             |       |                  |              | 1712.5 MHz         | 1745 MHz | 1777.5 MHz |     |                  | 1712.5 MHz         | 1745 MHz | 1777.5 MHz |      |                  |
| 5 MHz       | QPSK  | 1                | 0            | 20.75              | 20.70    | 20.41      | 0   | 21.00            | 22.14              | 22.09    | 21.87      | 0    | 22.25            |
|             |       | 1                | 12           | 20.65              | 20.60    | 20.92      | 0   | 21.00            | 22.12              | 22.01    | 21.79      | 0    | 22.25            |
|             |       | 1                | 24           | 20.62              | 20.56    | 20.95      | 0   | 21.00            | 22.02              | 21.92    | 21.75      | 0    | 22.25            |
|             |       | 12               | 0            | 20.64              | 20.58    | 20.97      | 0   | 21.00            | 21.57              | 21.55    | 21.83      | 0.25 | 22.00            |
|             |       | 12               | 7            | 20.62              | 20.59    | 20.89      | 0   | 21.00            | 21.58              | 21.55    | 21.79      | 0.25 | 22.00            |
|             |       | 12               | 13           | 20.55              | 20.58    | 20.90      | 0   | 21.00            | 21.54              | 21.50    | 21.81      | 0.25 | 22.00            |
|             |       | 25               | 0            | 20.61              | 20.58    | 20.90      | 0   | 21.00            | 21.60              | 21.49    | 21.81      | 0.25 | 22.00            |
|             | 16QAM | 1                | 0            | 20.80              | 20.99    | 20.94      | 0   | 21.00            | 21.61              | 21.86    | 21.81      | 0.25 | 22.00            |
|             |       | 1                | 12           | 20.43              | 20.87    | 20.84      | 0   | 21.00            | 21.58              | 21.84    | 21.67      | 0.25 | 22.00            |
|             |       | 1                | 24           | 20.33              | 20.87    | 20.90      | 0   | 21.00            | 21.53              | 21.80    | 21.71      | 0.25 | 22.00            |
|             |       | 12               | 0            | 20.37              | 20.32    | 20.67      | 0   | 21.00            | 20.68              | 20.58    | 20.90      | 1.25 | 21.00            |
|             |       | 12               | 7            | 20.37              | 20.32    | 20.65      | 0   | 21.00            | 20.65              | 20.58    | 20.84      | 1.25 | 21.00            |
|             |       | 12               | 13           | 20.28              | 20.28    | 20.64      | 0   | 21.00            | 20.57              | 20.51    | 20.84      | 1.25 | 21.00            |
|             |       | 25               | 0            | 20.36              | 20.22    | 20.60      | 0   | 21.00            | 20.60              | 20.47    | 20.85      | 1.25 | 21.00            |
|             | 64QAM | 1                | 0            | 20.67              | 20.62    | 20.45      | 0   | 21.00            | 20.90              | 20.86    | 20.78      | 1.25 | 21.00            |
|             |       | 1                | 12           | 20.59              | 20.61    | 20.44      | 0   | 21.00            | 20.81              | 20.82    | 20.73      | 1.25 | 21.00            |
|             |       | 1                | 24           | 20.61              | 20.55    | 20.47      | 0   | 21.00            | 20.82              | 20.79    | 20.72      | 1.25 | 21.00            |
|             |       | 12               | 0            | 19.19              | 19.24    | 19.21      | 1   | 20.00            | 19.48              | 19.51    | 19.51      | 2.25 | 20.00            |
|             |       | 12               | 7            | 19.18              | 19.22    | 19.19      | 1   | 20.00            | 19.46              | 19.47    | 19.48      | 2.25 | 20.00            |
|             |       | 12               | 13           | 19.18              | 19.18    | 19.20      | 1   | 20.00            | 19.45              | 19.40    | 19.46      | 2.25 | 20.00            |
|             |       | 25               | 0            | 19.22              | 19.20    | 19.17      | 1   | 20.00            | 19.50              | 19.40    | 19.44      | 2.25 | 20.00            |
| 3 MHz       | QPSK  | 1                | 0            | 20.65              | 20.60    | 20.86      | 0   | 21.00            | 21.61              | 21.56    | 21.34      | 0    | 22.25            |
|             |       | 1                | 8            | 20.68              | 20.59    | 20.89      | 0   | 21.00            | 21.59              | 21.48    | 21.26      | 0    | 22.25            |
|             |       | 1                | 14           | 20.58              | 20.47    | 20.80      | 0   | 21.00            | 21.49              | 21.39    | 21.42      | 0    | 22.25            |
|             |       | 8                | 0            | 20.52              | 20.50    | 20.67      | 0   | 21.00            | 21.43              | 21.49    | 21.68      | 0.25 | 22.00            |
|             |       | 8                | 4            | 20.50              | 20.55    | 20.68      | 0   | 21.00            | 21.41              | 21.48    | 21.67      | 0.25 | 22.00            |
|             |       | 8                | 7            | 20.50              | 20.50    | 20.68      | 0   | 21.00            | 21.41              | 21.42    | 21.68      | 0.25 | 22.00            |
|             |       | 15               | 0            | 20.50              | 20.49    | 20.71      | 0   | 21.00            | 21.46              | 21.41    | 21.68      | 0.25 | 22.00            |
|             | 16QAM | 1                | 0            | 20.83              | 20.91    | 20.78      | 0   | 21.00            | 21.87              | 21.87    | 21.53      | 0.25 | 22.00            |
|             |       | 1                | 8            | 20.86              | 20.90    | 20.81      | 0   | 21.00            | 21.94              | 21.85    | 21.54      | 0.25 | 22.00            |
|             |       | 1                | 14           | 20.77              | 20.84    | 20.77      | 0   | 21.00            | 21.87              | 21.82    | 21.99      | 0.25 | 22.00            |
|             |       | 8                | 0            | 20.23              | 20.18    | 20.43      | 0   | 21.00            | 20.48              | 20.48    | 20.71      | 1.25 | 21.00            |
|             |       | 8                | 4            | 20.22              | 20.19    | 20.44      | 0   | 21.00            | 20.45              | 20.46    | 20.69      | 1.25 | 21.00            |
|             |       | 8                | 7            | 20.21              | 20.14    | 20.44      | 0   | 21.00            | 20.45              | 20.41    | 20.69      | 1.25 | 21.00            |
|             |       | 15               | 0            | 20.18              | 20.09    | 20.41      | 0   | 21.00            | 20.41              | 20.37    | 20.64      | 1.25 | 21.00            |
|             | 64QAM | 1                | 0            | 20.21              | 20.29    | 20.19      | 0   | 21.00            | 20.63              | 20.66    | 20.58      | 1.25 | 21.00            |
|             |       | 1                | 8            | 20.21              | 20.32    | 20.26      | 0   | 21.00            | 20.63              | 20.64    | 20.59      | 1.25 | 21.00            |
|             |       | 1                | 14           | 20.21              | 20.12    | 20.19      | 0   | 21.00            | 20.51              | 20.55    | 20.66      | 1.25 | 21.00            |
|             |       | 8                | 0            | 19.18              | 19.19    | 19.15      | 1   | 20.00            | 19.31              | 19.35    | 19.30      | 2.25 | 20.00            |
|             |       | 8                | 4            | 19.17              | 19.22    | 19.14      | 1   | 20.00            | 19.28              | 19.34    | 19.29      | 2.25 | 20.00            |
|             |       | 8                | 7            | 19.16              | 19.14    | 19.14      | 1   | 20.00            | 19.24              | 19.26    | 19.29      | 2.25 | 20.00            |
|             |       | 15               | 0            | 19.15              | 19.08    | 19.05      | 1   | 20.00            | 19.25              | 19.21    | 19.22      | 2.25 | 20.00            |
| 1.4 MHz     | QPSK  | 1                | 0            | 20.29              | 20.22    | 20.79      | 0   | 21.00            | 21.51              | 21.51    | 21.75      | 0    | 22.25            |
|             |       | 1                | 3            | 20.28              | 20.19    | 20.97      | 0   | 21.00            | 21.50              | 21.52    | 21.72      | 0    | 22.25            |
|             |       | 1                | 5            | 20.24              | 20.17    | 20.92      | 0   | 21.00            | 21.48              | 21.43    | 21.75      | 0    | 22.25            |
|             |       | 3                | 0            | 20.34              | 20.40    | 20.81      | 0   | 21.00            | 21.57              | 21.38    | 21.63      | 0    | 22.25            |
|             |       | 3                | 1            | 20.35              | 20.40    | 20.80      | 0   | 21.00            | 21.53              | 21.36    | 21.56      | 0    | 22.25            |
|             |       | 3                | 3            | 20.35              | 20.33    | 20.93      | 0   | 21.00            | 21.49              | 21.31    | 21.54      | 0    | 22.25            |
|             |       | 6                | 0            | 20.03              | 20.04    | 20.76      | 0   | 21.00            | 21.54              | 21.33    | 21.53      | 0.25 | 22.00            |
|             | 16QAM | 1                | 0            | 20.25              | 20.20    | 20.87      | 0   | 21.00            | 21.84              | 21.79    | 21.52      | 0.25 | 22.00            |
|             |       | 1                | 3            | 20.28              | 20.16    | 20.89      | 0   | 21.00            | 21.77              | 21.72    | 21.99      | 0.25 | 22.00            |
|             |       | 1                | 5            | 20.31              | 20.11    | 20.92      | 0   | 21.00            | 21.78              | 21.70    | 21.51      | 0.25 | 22.00            |
|             |       | 3                | 0            | 20.85              | 20.85    | 20.80      | 0   | 21.00            | 21.26              | 21.22    | 21.41      | 0.25 | 22.00            |
|             |       | 3                | 1            | 20.81              | 20.79    | 20.89      | 0   | 21.00            | 21.26              | 21.21    | 21.42      | 0.25 | 22.00            |
|             |       | 3                | 3            | 20.80              | 20.82    | 20.88      | 0   | 21.00            | 21.18              | 21.10    | 21.45      | 0.25 | 22.00            |
|             |       | 6                | 0            | 20.24              | 20.19    | 20.36      | 0   | 21.00            | 20.49              | 20.42    | 20.73      | 1.25 | 21.00            |
|             | 64QAM | 1                | 0            | 20.60              | 20.30    | 20.23      | 0   | 21.00            | 20.78              | 20.70    | 20.81      | 1.25 | 21.00            |
|             |       | 1                | 3            | 20.49              | 20.34    | 20.22      | 0   | 21.00            | 20.77              | 20.64    | 20.78      | 1.25 | 21.00            |
|             |       | 1                | 5            | 20.50              | 20.23    | 20.23      | 0   | 21.00            | 20.69              | 20.66    | 20.75      | 1.25 | 21.00            |
|             |       | 3                | 0            | 20.42              | 20.26    | 20.22      | 0   | 21.00            | 20.15              | 20.17    | 20.14      | 1.25 | 21.00            |
|             |       | 3                | 1            | 20.40              | 20.24    | 20.21      | 0   | 21.00            | 20.13              | 20.15    | 20.12      | 1.25 | 21.00            |
|             |       | 3                | 3            | 20.32              | 20.17    | 20.19      | 0   | 21.00            | 20.14              | 20.08    | 20.12      | 1.25 | 21.00            |
|             |       | 6                | 0            | 19.19              | 19.05    | 19.13      | 1   | 20.00            | 19.42              | 19.34    | 19.28      | 2.25 | 20.00            |

**LTE Band 71 Measured Results (ANT1)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |           |         |     |                  | Power Mode B (dBm) |           |         |     |                  |
|-------------|-------|------------------|--------------|--------------------|-----------|---------|-----|------------------|--------------------|-----------|---------|-----|------------------|
|             |       |                  |              |                    | 133297    |         | MPR | Tune-up<br>Limit |                    | 133297    |         | MPR | Tune-up<br>Limit |
|             |       |                  |              |                    | 680.5 MHz |         |     |                  |                    | 680.5 MHz |         |     |                  |
| 20 MHz      | QPSK  | 1                | 0            |                    | 25.26     |         | 0   | 25.70            |                    | 25.26     |         | 0   | 25.70            |
|             |       | 1                | 49           |                    | 25.60     |         | 0   | 25.70            |                    | 25.60     |         | 0   | 25.70            |
|             |       | 1                | 99           |                    | 25.54     |         | 0   | 25.70            |                    | 25.54     |         | 0   | 25.70            |
|             |       | 50               | 0            |                    | 24.13     |         | 1   | 24.70            |                    | 24.13     |         | 1   | 24.70            |
|             |       | 50               | 24           |                    | 24.30     |         | 1   | 24.70            |                    | 24.30     |         | 1   | 24.70            |
|             |       | 50               | 50           |                    | 24.25     |         | 1   | 24.70            |                    | 24.25     |         | 1   | 24.70            |
|             |       | 100              | 0            |                    | 24.27     |         | 1   | 24.70            |                    | 24.27     |         | 1   | 24.70            |
|             | 16QAM | 1                | 0            |                    | 24.59     |         | 1   | 24.70            |                    | 24.59     |         | 1   | 24.70            |
|             |       | 1                | 49           |                    | 24.56     |         | 1   | 24.70            |                    | 24.56     |         | 1   | 24.70            |
|             |       | 1                | 99           |                    | 24.53     |         | 1   | 24.70            |                    | 24.53     |         | 1   | 24.70            |
|             |       | 50               | 0            |                    | 23.12     |         | 2   | 23.70            |                    | 23.12     |         | 2   | 23.70            |
|             |       | 50               | 24           |                    | 23.29     |         | 2   | 23.70            |                    | 23.29     |         | 2   | 23.70            |
|             |       | 50               | 50           |                    | 23.30     |         | 2   | 23.70            |                    | 23.30     |         | 2   | 23.70            |
|             |       | 100              | 0            |                    | 23.33     |         | 2   | 23.70            |                    | 23.33     |         | 2   | 23.70            |
|             | 64QAM | 1                | 0            |                    | 23.61     |         | 2   | 23.70            |                    | 23.61     |         | 2   | 23.70            |
|             |       | 1                | 49           |                    | 23.65     |         | 2   | 23.70            |                    | 23.65     |         | 2   | 23.70            |
|             |       | 1                | 99           |                    | 23.64     |         | 2   | 23.70            |                    | 23.64     |         | 2   | 23.70            |
|             |       | 50               | 0            |                    | 22.16     |         | 3   | 22.70            |                    | 22.16     |         | 3   | 22.70            |
|             |       | 50               | 24           |                    | 22.29     |         | 3   | 22.70            |                    | 22.29     |         | 3   | 22.70            |
|             |       | 50               | 50           |                    | 22.32     |         | 3   | 22.70            |                    | 22.32     |         | 3   | 22.70            |
|             |       | 100              | 0            |                    | 22.33     |         | 3   | 22.70            |                    | 22.33     |         | 3   | 22.70            |
| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |           |         |     |                  | Power Mode B (dBm) |           |         |     |                  |
|             |       |                  |              |                    | 133297    |         | MPR | Tune-up<br>Limit |                    | 133297    |         | MPR | Tune-up<br>Limit |
|             |       |                  |              |                    | 680.5 MHz |         |     |                  |                    | 680.5 MHz |         |     |                  |
| 15 MHz      | QPSK  | 1                | 0            |                    | 25.41     |         | 0   | 25.70            |                    | 25.41     |         | 0   | 25.70            |
|             |       | 1                | 37           |                    | 25.27     |         | 0   | 25.70            |                    | 25.27     |         | 0   | 25.70            |
|             |       | 1                | 74           |                    | 25.30     |         | 0   | 25.70            |                    | 25.30     |         | 0   | 25.70            |
|             |       | 36               | 0            |                    | 24.31     |         | 1   | 24.70            |                    | 24.31     |         | 1   | 24.70            |
|             |       | 36               | 20           |                    | 24.28     |         | 1   | 24.70            |                    | 24.28     |         | 1   | 24.70            |
|             |       | 36               | 39           |                    | 24.30     |         | 1   | 24.70            |                    | 24.30     |         | 1   | 24.70            |
|             |       | 75               | 0            |                    | 24.31     |         | 1   | 24.70            |                    | 24.31     |         | 1   | 24.70            |
|             | 16QAM | 1                | 0            |                    | 24.70     |         | 1   | 24.70            |                    | 24.70     |         | 1   | 24.70            |
|             |       | 1                | 37           |                    | 24.53     |         | 1   | 24.70            |                    | 24.53     |         | 1   | 24.70            |
|             |       | 1                | 74           |                    | 24.60     |         | 1   | 24.70            |                    | 24.60     |         | 1   | 24.70            |
|             |       | 36               | 0            |                    | 23.32     |         | 2   | 23.70            |                    | 23.32     |         | 2   | 23.70            |
|             |       | 36               | 20           |                    | 23.29     |         | 2   | 23.70            |                    | 23.29     |         | 2   | 23.70            |
|             |       | 36               | 39           |                    | 23.31     |         | 2   | 23.70            |                    | 23.31     |         | 2   | 23.70            |
|             |       | 75               | 0            |                    | 23.31     |         | 2   | 23.70            |                    | 23.31     |         | 2   | 23.70            |
|             | 64QAM | 1                | 0            |                    | 23.66     |         | 2   | 23.70            |                    | 23.66     |         | 2   | 23.70            |
|             |       | 1                | 37           |                    | 23.54     |         | 2   | 23.70            |                    | 23.54     |         | 2   | 23.70            |
|             |       | 1                | 74           |                    | 23.61     |         | 2   | 23.70            |                    | 23.61     |         | 2   | 23.70            |
|             |       | 36               | 0            |                    | 22.37     |         | 3   | 22.70            |                    | 22.37     |         | 3   | 22.70            |
|             |       | 36               | 20           |                    | 22.37     |         | 3   | 22.70            |                    | 22.37     |         | 3   | 22.70            |
|             |       | 36               | 39           |                    | 22.40     |         | 3   | 22.70            |                    | 22.40     |         | 3   | 22.70            |
|             |       | 75               | 0            |                    | 22.36     |         | 3   | 22.70            |                    | 22.36     |         | 3   | 22.70            |
| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |           |         |     |                  | Power Mode B (dBm) |           |         |     |                  |
|             |       |                  |              | 133172             | 133297    | 133422  | MPR | Tune-up<br>Limit | 133172             | 133297    | 133422  | MPR | Tune-up<br>Limit |
|             |       |                  |              | 668 MHz            | 680.5 MHz | 693 MHz |     |                  | 668 MHz            | 680.5 MHz | 693 MHz |     |                  |
| 10 MHz      | QPSK  | 1                | 0            |                    | 25.59     | 25.52   | 0   | 25.70            |                    | 25.59     | 25.52   | 0   | 25.70            |
|             |       | 1                | 25           |                    | 25.41     | 25.39   | 0   | 25.70            |                    | 25.41     | 25.39   | 0   | 25.70            |
|             |       | 1                | 49           |                    | 25.33     | 25.49   | 0   | 25.70            |                    | 25.33     | 25.49   | 0   | 25.70            |
|             |       | 25               | 0            |                    | 24.38     | 24.34   | 1   | 24.70            |                    | 24.38     | 24.34   | 1   | 24.70            |
|             |       | 25               | 12           |                    | 24.36     | 24.38   | 1   | 24.70            |                    | 24.36     | 24.38   | 1   | 24.70            |
|             |       | 25               | 25           |                    | 24.34     | 24.45   | 1   | 24.70            |                    | 24.34     | 24.45   | 1   | 24.70            |
|             |       | 50               | 0            |                    | 24.46     | 24.40   | 1   | 24.70            |                    | 24.46     | 24.40   | 1   | 24.70            |
|             | 16QAM | 1                | 0            |                    | 24.39     | 24.23   | 1   | 24.70            |                    | 24.39     | 24.23   | 1   | 24.70            |
|             |       | 1                | 25           |                    | 24.29     | 24.17   | 1   | 24.70            |                    | 24.29     | 24.17   | 1   | 24.70            |
|             |       | 1                | 49           |                    | 24.25     | 24.26   | 1   | 24.70            |                    | 24.25     | 24.26   | 1   | 24.70            |
|             |       | 25               | 0            |                    | 23.38     | 23.35   | 2   | 23.70            |                    | 23.38     | 23.35   | 2   | 23.70            |
|             |       | 25               | 12           |                    | 23.37     | 23.42   | 2   | 23.70            |                    | 23.37     | 23.42   | 2   | 23.70            |
|             |       | 25               | 25           |                    | 23.37     | 23.51   | 2   | 23.70            |                    | 23.37     | 23.51   | 2   | 23.70            |
|             |       | 50               | 0            |                    | 23.43     | 23.49   | 2   | 23.70            |                    | 23.43     | 23.49   | 2   | 23.70            |
|             | 64QAM | 1                | 0            |                    | 23.30     | 23.15   | 2   | 23.70            |                    | 23.30     | 23.15   | 2   | 23.70            |
|             |       | 1                | 25           |                    | 23.66     | 23.64   | 2   | 23.70            |                    | 23.66     | 23.64   | 2   | 23.70            |
|             |       | 1                | 49           |                    | 23.54     | 23.70   | 2   | 23.70            |                    | 23.54     | 23.70   | 2   | 23.70            |
|             |       | 25               | 0            |                    | 22.44     | 22.40   | 3   | 22.70            |                    | 22.44     | 22.40   | 3   | 22.70            |
|             |       | 25               | 12           |                    | 22.40     | 22.43   | 3   | 22.70            |                    | 22.40     | 22.43   | 3   | 22.70            |
|             |       | 25               | 25           |                    | 22.39     | 22.51   | 3   | 22.70            |                    | 22.39     | 22.51   | 3   | 22.70            |
|             |       | 50               | 0            |                    | 22.51     | 22.45   | 3   | 22.70            |                    | 22.51     | 22.45   | 3   | 22.70            |

**LTE Band 71 Measured Results (ANT1) (continued)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |           |           |     |                  | Power Mode B (dBm) |           |           |     |                  |
|-------------|-------|------------------|--------------|--------------------|-----------|-----------|-----|------------------|--------------------|-----------|-----------|-----|------------------|
|             |       |                  |              | 133147             | 133297    | 133447    | MPR | Tune-up<br>Limit | 133147             | 133297    | 133447    | MPR | Tune-up<br>Limit |
|             |       |                  |              | 665.5 MHz          | 680.5 MHz | 695.5 MHz |     |                  | 665.5 MHz          | 680.5 MHz | 695.5 MHz |     |                  |
| 5 MHz       | QPSK  | 1                | 0            | 25.68              | 25.38     | 25.25     | 0   | 25.70            | 25.68              | 25.38     | 25.25     | 0   | 25.70            |
|             |       | 1                | 12           | 25.48              | 25.38     | 25.27     | 0   | 25.70            | 25.48              | 25.38     | 25.27     | 0   | 25.70            |
|             |       | 1                | 24           | 25.52              | 25.52     | 25.52     | 0   | 25.70            | 25.52              | 25.52     | 25.52     | 0   | 25.70            |
|             |       | 12               | 0            | 24.43              | 24.34     | 24.21     | 1   | 24.70            | 24.43              | 24.34     | 24.21     | 1   | 24.70            |
|             |       | 12               | 7            | 24.36              | 24.32     | 24.18     | 1   | 24.70            | 24.36              | 24.32     | 24.18     | 1   | 24.70            |
|             |       | 12               | 13           | 24.36              | 24.37     | 24.24     | 1   | 24.70            | 24.36              | 24.37     | 24.24     | 1   | 24.70            |
|             |       | 25               | 0            | 24.38              | 24.35     | 24.22     | 1   | 24.70            | 24.38              | 24.35     | 24.22     | 1   | 24.70            |
|             | 16QAM | 1                | 0            | 24.41              | 24.31     | 24.12     | 1   | 24.70            | 24.41              | 24.31     | 24.12     | 1   | 24.70            |
|             |       | 1                | 12           | 24.21              | 24.28     | 24.12     | 1   | 24.70            | 24.21              | 24.28     | 24.12     | 1   | 24.70            |
|             |       | 1                | 24           | 24.24              | 24.37     | 24.41     | 1   | 24.70            | 24.24              | 24.37     | 24.41     | 1   | 24.70            |
|             |       | 12               | 0            | 23.39              | 23.41     | 23.18     | 2   | 23.70            | 23.39              | 23.41     | 23.18     | 2   | 23.70            |
|             |       | 12               | 7            | 23.33              | 23.34     | 23.15     | 2   | 23.70            | 23.33              | 23.34     | 23.15     | 2   | 23.70            |
|             |       | 12               | 13           | 23.36              | 23.41     | 23.21     | 2   | 23.70            | 23.36              | 23.41     | 23.21     | 2   | 23.70            |
|             |       | 25               | 0            | 23.29              | 23.29     | 23.18     | 2   | 23.70            | 23.29              | 23.29     | 23.18     | 2   | 23.70            |
|             | 64QAM | 1                | 0            | 23.42              | 23.18     | 23.10     | 2   | 23.70            | 23.42              | 23.18     | 23.10     | 2   | 23.70            |
|             |       | 1                | 12           | 23.15              | 23.16     | 23.13     | 2   | 23.70            | 23.15              | 23.16     | 23.13     | 2   | 23.70            |
|             |       | 1                | 24           | 23.22              | 23.31     | 23.31     | 2   | 23.70            | 23.22              | 23.31     | 23.31     | 2   | 23.70            |
|             |       | 12               | 0            | 22.43              | 22.29     | 22.22     | 3   | 22.70            | 22.43              | 22.29     | 22.22     | 3   | 22.70            |
|             |       | 12               | 7            | 22.37              | 22.27     | 22.20     | 3   | 22.70            | 22.37              | 22.27     | 22.20     | 3   | 22.70            |
|             |       | 12               | 13           | 22.40              | 22.35     | 22.22     | 3   | 22.70            | 22.40              | 22.35     | 22.22     | 3   | 22.70            |
|             |       | 25               | 0            | 22.39              | 22.34     | 22.20     | 3   | 22.70            | 22.39              | 22.34     | 22.20     | 3   | 22.70            |

**LTE Band 71 Measured Results (ANT2)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |           |         |     |                  | Power Mode B (dBm) |           |         |     |                  |
|-------------|-------|------------------|--------------|--------------------|-----------|---------|-----|------------------|--------------------|-----------|---------|-----|------------------|
|             |       |                  |              |                    | 133297    |         | MPR | Tune-up<br>Limit |                    | 133297    |         | MPR | Tune-up<br>Limit |
|             |       |                  |              |                    | 680.5 MHz |         |     |                  |                    | 680.5 MHz |         |     |                  |
| 20 MHz      | QPSK  | 1                | 0            |                    | 23.97     |         | 0   | 24.50            |                    | 23.97     |         | 0   | 24.50            |
|             |       | 1                | 49           |                    | 24.50     |         | 0   | 24.50            |                    | 24.50     |         | 0   | 24.50            |
|             |       | 1                | 99           |                    | 23.94     |         | 0   | 24.50            |                    | 23.94     |         | 0   | 24.50            |
|             |       | 50               | 0            |                    | 22.75     |         | 1   | 23.50            |                    | 22.75     |         | 1   | 23.50            |
|             |       | 50               | 24           |                    | 23.50     |         | 1   | 23.50            |                    | 23.50     |         | 1   | 23.50            |
|             |       | 50               | 50           |                    | 22.94     |         | 1   | 23.50            |                    | 22.94     |         | 1   | 23.50            |
|             |       | 100              | 0            |                    | 23.50     |         | 1   | 23.50            |                    | 23.50     |         | 1   | 23.50            |
|             | 16QAM | 1                | 0            |                    | 22.46     |         | 1   | 23.50            |                    | 22.46     |         | 1   | 23.50            |
|             |       | 1                | 49           |                    | 22.21     |         | 1   | 23.50            |                    | 22.21     |         | 1   | 23.50            |
|             |       | 1                | 99           |                    | 22.45     |         | 1   | 23.50            |                    | 22.45     |         | 1   | 23.50            |
|             |       | 50               | 0            |                    | 21.78     |         | 2   | 22.50            |                    | 21.78     |         | 2   | 22.50            |
|             |       | 50               | 24           |                    | 21.85     |         | 2   | 22.50            |                    | 21.85     |         | 2   | 22.50            |
|             |       | 50               | 50           |                    | 21.98     |         | 2   | 22.50            |                    | 21.98     |         | 2   | 22.50            |
|             |       | 100              | 0            |                    | 21.92     |         | 2   | 22.50            |                    | 21.92     |         | 2   | 22.50            |
|             | 64QAM | 1                | 0            |                    | 22.09     |         | 2   | 22.50            |                    | 22.09     |         | 2   | 22.50            |
|             |       | 1                | 49           |                    | 21.71     |         | 2   | 22.50            |                    | 21.71     |         | 2   | 22.50            |
|             |       | 1                | 99           |                    | 22.04     |         | 2   | 22.50            |                    | 22.04     |         | 2   | 22.50            |
|             |       | 50               | 0            |                    | 20.41     |         | 3   | 21.50            |                    | 20.41     |         | 3   | 21.50            |
|             |       | 50               | 24           |                    | 20.40     |         | 3   | 21.50            |                    | 20.40     |         | 3   | 21.50            |
|             |       | 50               | 50           |                    | 20.72     |         | 3   | 21.50            |                    | 20.72     |         | 3   | 21.50            |
|             |       | 100              | 0            |                    | 20.5      |         | 3   | 21.50            |                    | 20.49     |         | 3   | 21.50            |
| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |           |         |     |                  | Power Mode B (dBm) |           |         |     |                  |
|             |       |                  |              |                    | 133297    |         | MPR | Tune-up<br>Limit |                    | 133297    |         | MPR | Tune-up<br>Limit |
|             |       |                  |              |                    | 680.5 MHz |         |     |                  |                    | 680.5 MHz |         |     |                  |
| 15 MHz      | QPSK  | 1                | 0            |                    | 23.98     |         | 0   | 24.50            |                    | 23.98     |         | 0   | 24.50            |
|             |       | 1                | 37           |                    | 23.95     |         | 0   | 24.50            |                    | 23.95     |         | 0   | 24.50            |
|             |       | 1                | 74           |                    | 23.84     |         | 0   | 24.50            |                    | 23.84     |         | 0   | 24.50            |
|             |       | 36               | 0            |                    | 22.95     |         | 1   | 23.50            |                    | 22.95     |         | 1   | 23.50            |
|             |       | 36               | 20           |                    | 22.95     |         | 1   | 23.50            |                    | 22.95     |         | 1   | 23.50            |
|             |       | 36               | 39           |                    | 22.87     |         | 1   | 23.50            |                    | 22.87     |         | 1   | 23.50            |
|             |       | 75               | 0            |                    | 22.97     |         | 1   | 23.50            |                    | 22.97     |         | 1   | 23.50            |
|             | 16QAM | 1                | 0            |                    | 22.93     |         | 1   | 23.50            |                    | 22.93     |         | 1   | 23.50            |
|             |       | 1                | 37           |                    | 22.97     |         | 1   | 23.50            |                    | 22.97     |         | 1   | 23.50            |
|             |       | 1                | 74           |                    | 22.95     |         | 1   | 23.50            |                    | 22.95     |         | 1   | 23.50            |
|             |       | 36               | 0            |                    | 21.95     |         | 2   | 22.50            |                    | 21.95     |         | 2   | 22.50            |
|             |       | 36               | 20           |                    | 21.97     |         | 2   | 22.50            |                    | 21.97     |         | 2   | 22.50            |
|             |       | 36               | 39           |                    | 21.90     |         | 2   | 22.50            |                    | 21.90     |         | 2   | 22.50            |
|             |       | 75               | 0            |                    | 21.96     |         | 2   | 22.50            |                    | 21.96     |         | 2   | 22.50            |
|             | 64QAM | 1                | 0            |                    | 21.98     |         | 2   | 22.50            |                    | 21.98     |         | 2   | 22.50            |
|             |       | 1                | 37           |                    | 21.85     |         | 2   | 22.50            |                    | 21.85     |         | 2   | 22.50            |
|             |       | 1                | 74           |                    | 21.75     |         | 2   | 22.50            |                    | 21.75     |         | 2   | 22.50            |
|             |       | 36               | 0            |                    | 20.59     |         | 3   | 21.50            |                    | 20.59     |         | 3   | 21.50            |
|             |       | 36               | 20           |                    | 20.66     |         | 3   | 21.50            |                    | 20.66     |         | 3   | 21.50            |
|             |       | 36               | 39           |                    | 20.65     |         | 3   | 21.50            |                    | 20.65     |         | 3   | 21.50            |
|             |       | 75               | 0            |                    | 20.63     |         | 3   | 21.50            |                    | 20.63     |         | 3   | 21.50            |
| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |           |         |     |                  | Power Mode B (dBm) |           |         |     |                  |
|             |       |                  |              | 133172             | 133297    | 133422  | MPR | Tune-up<br>Limit | 133172             | 133297    | 133422  | MPR | Tune-up<br>Limit |
|             |       |                  |              | 668 MHz            | 680.5 MHz | 693 MHz |     |                  | 668 MHz            | 680.5 MHz | 693 MHz |     |                  |
| 10 MHz      | QPSK  | 1                | 0            |                    | 23.84     | 23.94   | 0   | 24.50            | 23.84              | 23.94     | 23.90   | 0   | 24.50            |
|             |       | 1                | 25           |                    | 23.88     | 23.96   | 0   | 24.50            | 23.88              | 23.96     | 23.92   | 0   | 24.50            |
|             |       | 1                | 49           |                    | 23.92     | 23.92   | 0   | 24.50            | 23.92              | 23.92     | 24.00   | 0   | 24.50            |
|             |       | 25               | 0            |                    | 22.93     | 22.95   | 1   | 23.50            | 22.93              | 22.95     | 22.89   | 1   | 23.50            |
|             |       | 25               | 12           |                    | 22.85     | 22.93   | 1   | 23.50            | 22.85              | 22.93     | 22.87   | 1   | 23.50            |
|             |       | 25               | 25           |                    | 22.90     | 22.94   | 1   | 23.50            | 22.90              | 22.94     | 22.96   | 1   | 23.50            |
|             |       | 50               | 0            |                    | 22.86     | 22.96   | 1   | 23.50            | 22.86              | 22.96     | 22.97   | 1   | 23.50            |
|             | 16QAM | 1                | 0            |                    | 22.91     | 23.00   | 1   | 23.50            | 22.91              | 23.00     | 22.92   | 1   | 23.50            |
|             |       | 1                | 25           |                    | 22.99     | 22.95   | 1   | 23.50            | 22.99              | 22.95     | 22.99   | 1   | 23.50            |
|             |       | 1                | 49           |                    | 22.96     | 22.92   | 1   | 23.50            | 22.96              | 22.92     | 22.96   | 1   | 23.50            |
|             |       | 25               | 0            |                    | 21.93     | 21.98   | 2   | 22.50            | 21.93              | 21.98     | 21.91   | 2   | 22.50            |
|             |       | 25               | 12           |                    | 21.87     | 21.99   | 2   | 22.50            | 21.87              | 21.99     | 21.86   | 2   | 22.50            |
|             |       | 25               | 25           |                    | 21.91     | 21.95   | 2   | 22.50            | 21.91              | 21.95     | 21.91   | 2   | 22.50            |
|             |       | 50               | 0            |                    | 21.87     | 21.93   | 2   | 22.50            | 21.87              | 21.93     | 21.96   | 2   | 22.50            |
|             | 64QAM | 1                | 0            |                    | 22.42     | 22.41   | 2   | 22.50            | 22.42              | 22.41     | 22.29   | 2   | 22.50            |
|             |       | 1                | 25           |                    | 22.26     | 22.45   | 2   | 22.50            | 22.26              | 22.45     | 22.28   | 2   | 22.50            |
|             |       | 1                | 49           |                    | 22.41     | 22.45   | 2   | 22.50            | 22.41              | 22.45     | 22.35   | 2   | 22.50            |
|             |       | 25               | 0            |                    | 21.22     | 21.32   | 3   | 21.50            | 21.22              | 21.32     | 21.05   | 3   | 21.50            |
|             |       | 25               | 12           |                    | 21.14     | 21.17   | 3   | 21.50            | 21.14              | 21.17     | 21.10   | 3   | 21.50            |
|             |       | 25               | 25           |                    | 21.25     | 21.19   | 3   | 21.50            | 21.25              | 21.19     | 21.19   | 3   | 21.50            |
|             |       | 50               | 0            |                    | 21.10     | 21.12   | 3   | 21.50            | 21.10              | 21.12     | 21.11   | 3   | 21.50            |

**LTE Band 71 Measured Results (ANT2) (continued)**

| BW<br>(MHz) | Mode  | RB<br>Allocation | RB<br>offset | Power Mode A (dBm) |           |           |     |                  | Power Mode B (dBm) |           |           |     |                  |
|-------------|-------|------------------|--------------|--------------------|-----------|-----------|-----|------------------|--------------------|-----------|-----------|-----|------------------|
|             |       |                  |              | 133147             | 133297    | 133447    | MPR | Tune-up<br>Limit | 133147             | 133297    | 133447    | MPR | Tune-up<br>Limit |
|             |       |                  |              | 665.5 MHz          | 680.5 MHz | 695.5 MHz |     |                  | 665.5 MHz          | 680.5 MHz | 695.5 MHz |     |                  |
| 5 MHz       | QPSK  | 1                | 0            | 23.98              | 23.95     | 23.95     | 0   | 24.50            | 23.98              | 23.95     | 23.95     | 0   | 24.50            |
|             |       | 1                | 12           | 23.94              | 23.93     | 23.99     | 0   | 24.50            | 23.94              | 23.93     | 23.99     | 0   | 24.50            |
|             |       | 1                | 24           | 23.90              | 23.94     | 23.94     | 0   | 24.50            | 23.90              | 23.94     | 23.94     | 0   | 24.50            |
|             |       | 12               | 0            | 22.92              | 22.91     | 22.87     | 1   | 23.50            | 22.92              | 22.91     | 22.87     | 1   | 23.50            |
|             |       | 12               | 7            | 22.85              | 22.90     | 22.85     | 1   | 23.50            | 22.85              | 22.90     | 22.85     | 1   | 23.50            |
|             |       | 12               | 13           | 22.84              | 22.89     | 22.82     | 1   | 23.50            | 22.84              | 22.89     | 22.82     | 1   | 23.50            |
|             |       | 25               | 0            | 22.84              | 22.91     | 22.90     | 1   | 23.50            | 22.84              | 22.91     | 22.90     | 1   | 23.50            |
|             | 16QAM | 1                | 0            | 22.99              | 22.98     | 22.91     | 1   | 23.50            | 22.99              | 22.98     | 22.91     | 1   | 23.50            |
|             |       | 1                | 12           | 22.93              | 22.97     | 22.91     | 1   | 23.50            | 22.93              | 22.97     | 22.91     | 1   | 23.50            |
|             |       | 1                | 24           | 22.97              | 22.98     | 22.93     | 1   | 23.50            | 22.97              | 22.98     | 22.93     | 1   | 23.50            |
|             |       | 12               | 0            | 21.91              | 21.94     | 21.92     | 2   | 22.50            | 21.91              | 21.94     | 21.92     | 2   | 22.50            |
|             |       | 12               | 7            | 21.81              | 21.97     | 21.94     | 2   | 22.50            | 21.81              | 21.97     | 21.94     | 2   | 22.50            |
|             |       | 12               | 13           | 21.80              | 21.98     | 21.88     | 2   | 22.50            | 21.80              | 21.98     | 21.88     | 2   | 22.50            |
|             |       | 25               | 0            | 21.81              | 21.95     | 21.90     | 2   | 22.50            | 21.81              | 21.95     | 21.90     | 2   | 22.50            |
|             | 64QAM | 1                | 0            | 22.47              | 22.35     | 22.33     | 2   | 22.50            | 22.47              | 22.35     | 22.33     | 2   | 22.50            |
|             |       | 1                | 12           | 22.46              | 22.42     | 22.39     | 2   | 22.50            | 22.46              | 22.42     | 22.39     | 2   | 22.50            |
|             |       | 1                | 24           | 22.39              | 22.30     | 22.43     | 2   | 22.50            | 22.39              | 22.30     | 22.43     | 2   | 22.50            |
|             |       | 12               | 0            | 21.27              | 21.01     | 21.07     | 3   | 21.50            | 21.27              | 21.01     | 21.07     | 3   | 21.50            |
|             |       | 12               | 7            | 21.08              | 21.03     | 21.07     | 3   | 21.50            | 21.08              | 21.03     | 21.07     | 3   | 21.50            |
|             |       | 12               | 13           | 21.04              | 21.03     | 21.04     | 3   | 21.50            | 21.04              | 21.03     | 21.04     | 3   | 21.50            |
|             |       | 25               | 0            | 21.07              | 21.02     | 21.11     | 3   | 21.50            | 21.07              | 21.02     | 21.11     | 3   | 21.50            |

## 9.5. LTE Up-Link Carrier Aggregation

The following tests were conducted according to the test requirements outlined in section 6.2 of the 3GPP TS36.101 specification.

For inter-band carrier aggregation with uplink assigned to one E-UTRA band (Table 5.6A-1), the requirements in subclause 6.2.3 apply.

For inter-band carrier aggregation with one component carrier per operating band and the uplink active in two E-UTRA bands, the requirements in subclause 6.2.3 apply for each uplink component carrier.

For intra-band contiguous carrier aggregation the allowed Maximum Power Reduction (MPR) for the maximum output power applicable to the DUT in table below. In case the modulation format is different on different component carriers then the MPR is determined by the rules applied to higher order of those modulations.

| Modulation | CA bandwidth Class B and C / Smallest Component Carrier Transmission Bandwidth Configuration |                                                         |                                                         |                                                         | MPR (dB) |
|------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------|----------|
|            | 25 RB                                                                                        | 50 RB                                                   | 75 RB                                                   | 100 RB                                                  |          |
| QPSK       | > 8 and ≤ 25                                                                                 | > 12 and ≤ 50                                           | > 16 and ≤ 75                                           | > 18 and ≤ 100                                          | ≤ 1      |
| QPSK       | > 25                                                                                         | > 50                                                    | > 75                                                    | > 100                                                   | ≤ 2      |
| 16 QAM     | ≤ 8                                                                                          | ≤ 12                                                    | ≤ 16                                                    | ≤ 18                                                    | ≤ 1      |
| 16 QAM     | > 8 and ≤ 25                                                                                 | > 12 and ≤ 50                                           | > 16 and ≤ 75                                           | > 18 and ≤ 100                                          | ≤ 2      |
| 16 QAM     | > 25                                                                                         | > 50                                                    | > 75                                                    | > 100                                                   | ≤ 3      |
| 64 QAM     | ≤ 8 and allocation wholly contained within a single CC                                       | ≤ 12 and allocation wholly contained within a single CC | ≤ 16 and allocation wholly contained within a single CC | ≤ 18 and allocation wholly contained within a single CC | ≤ 2      |
| 64 QAM     | > 8 or allocation extends across two CC's                                                    | > 12 or allocation extends across two CC's              | > 16 or allocation extends across two CC's              | > 18 or allocation extends across two CC's              | ≤ 3      |

For PUCCH and SRS transmissions, the allowed MPR is according to that specified for PUSCH WPKD modulation for the corresponding transmission bandwidth.

For intra-band contiguous carrier aggregation bandwidth class C with non-contiguous resource allocation, the allowed Maximum Power Reduction (MPR) for the maximum output power in Table 6.2.2A-1 is specified as follows

$$\text{MPR} = \text{CEIL} \{ \min(M_A, M_{IM5}), 0.5 \}$$

Where  $M_A$  is defined as follows

$$M_A = \begin{cases} 8.2 & ; 0 \leq A < 0.025 \\ 9.2 - 40A & ; 0.025 \leq A < 0.05 \\ 8 - 16A & ; 0.05 \leq A < 0.25 \\ 4.83 - 3.33A & ; 0.25 \leq A \leq 0.4 \end{cases}$$

$$3.83 - 0.83A \quad ; 0.4 \leq A \leq 1$$

and  $M_{IM5}$  is defined as follows

$$M_{IM5} = \begin{aligned} &4.5 \quad ; \Delta_{IM5} < 1.5 * BW_{Channel\_CA} \\ &6.0 \quad ; 1.5 * BW_{Channel\_CA} \leq \Delta_{IM5} < BW_{Channel\_CA}/2 + \Delta f_{00B} \\ &M_A \quad ; \Delta_{IM5} \geq BW_{Channel\_CA}/2 + \Delta f_{00B} \end{aligned}$$

Where

$$A = N_{RB\_alloc} / N_{RB\_agg}$$

$$\Delta_{IM5} = \max(|F_{C\_agg} - (3 * F_{agg\_alloc\_low} - 2 * F_{agg\_alloc\_high})|, |F_{C\_agg} - (3 * F_{agg\_alloc\_high} - 2 * F_{agg\_alloc\_low})|)$$

$CEIL\{M_A, 0.5\}$  means rounding upwards to closest 0.5dB, i.e.  $MPR \in [3.0, 3.5, 4.0, 4.5, 5.0, 5.5, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5]$

For intra-band carrier aggregation, the MPR is evaluated per slot and given by the maximum value taken over the transmission(s) on all component carriers within the slot; the maximum MPR over the two slots is then applied for the entire subframe.

For intra-band non-contiguous carrier aggregation with one uplink carrier on the PCC, the requirements in the subclause 6.2.3 apply. For intra-band non-contiguous aggregation with two uplink carriers the MPR is defined for those E-UTRA bands where maximum possible  $W_{GAP} \leq 42.2$  MHz as follows

$$MPR = CEIL\{M_A, 0.5\}$$

Where  $M_N$  is defined as follows

$$M_N = \begin{aligned} &-0.125N + 18.25 \quad ; 2 \leq N \leq 50 \\ &-0.0333 N + 13.67 \quad ; 50 < N \leq 200 \end{aligned}$$

Where  $N = N_{RB\_alloc}$  is the number of allocated resource blocks.

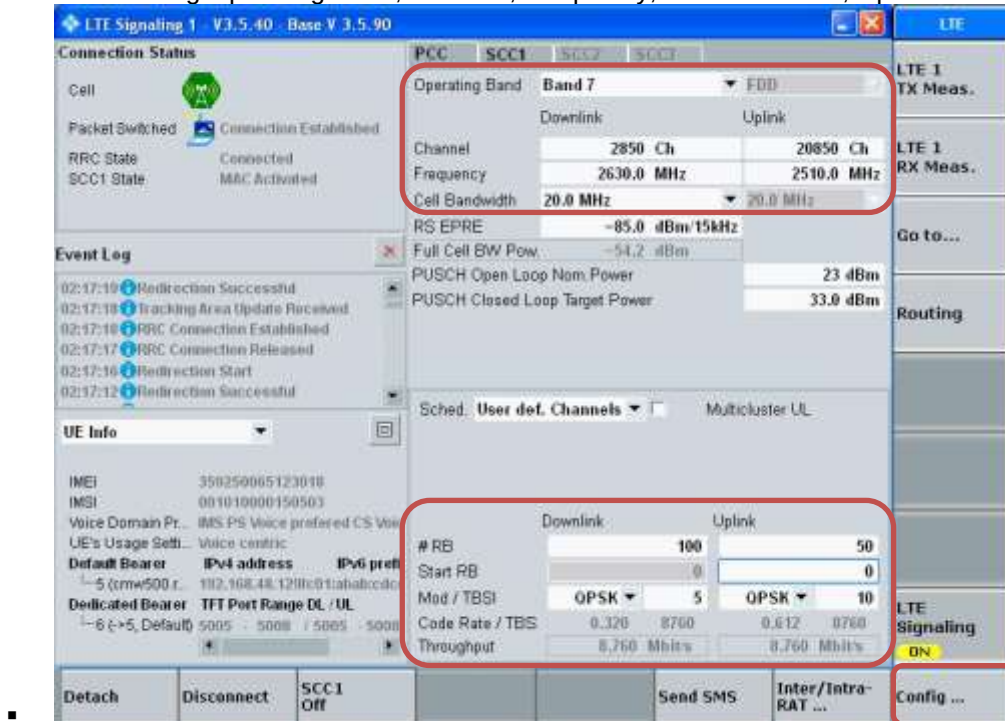
For the UE maximum output power modified by MPR, the power limits specified in subclause 6.2.5A apply.

**LTE Carrier Aggregation Test Signal Set-up Procedure**

(Use normal LTE set-up procedure in addition with the following steps)

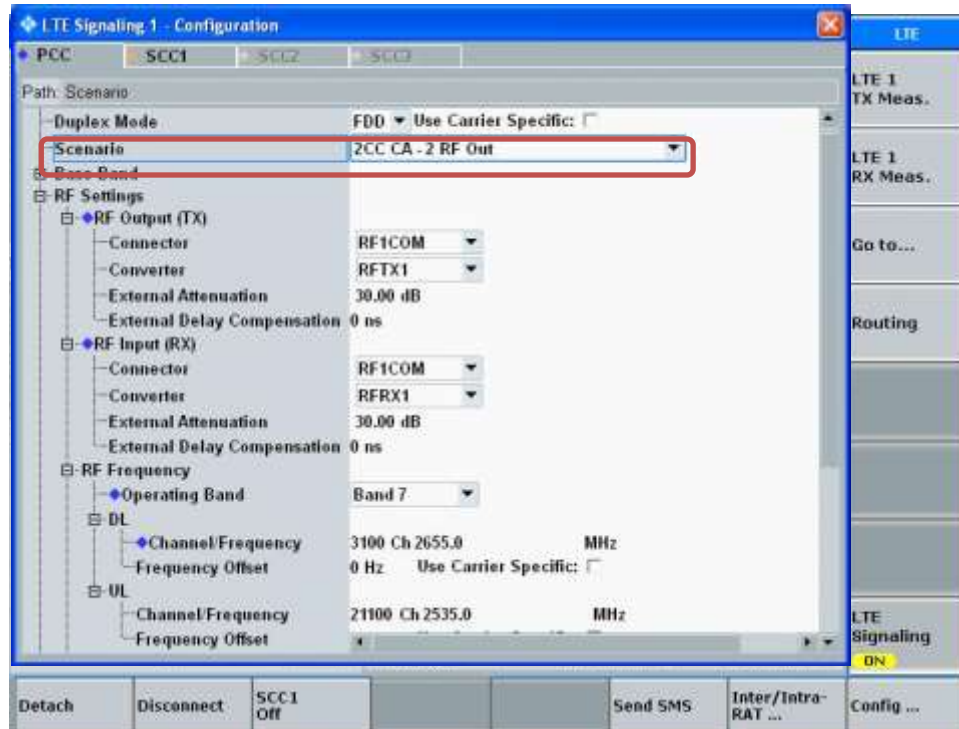
Set to CMW-500 with following parameters:

- PCC tab:
  - Select the testing Operating Band, Channel, Frequency, Cell Bandwidth, Uplink RBs

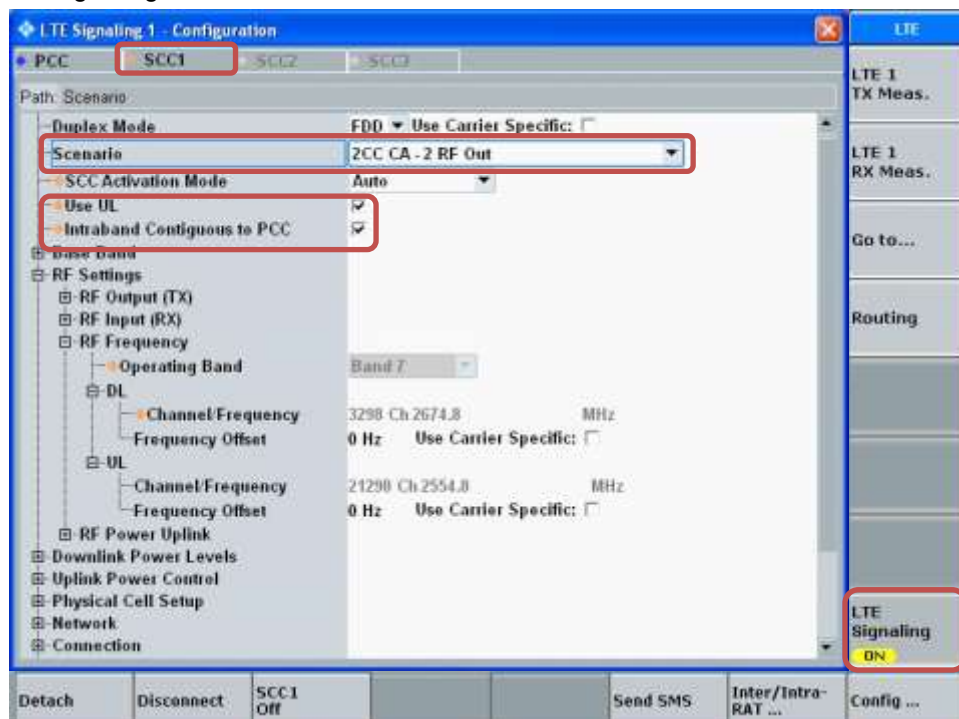


- Go to "Config...."

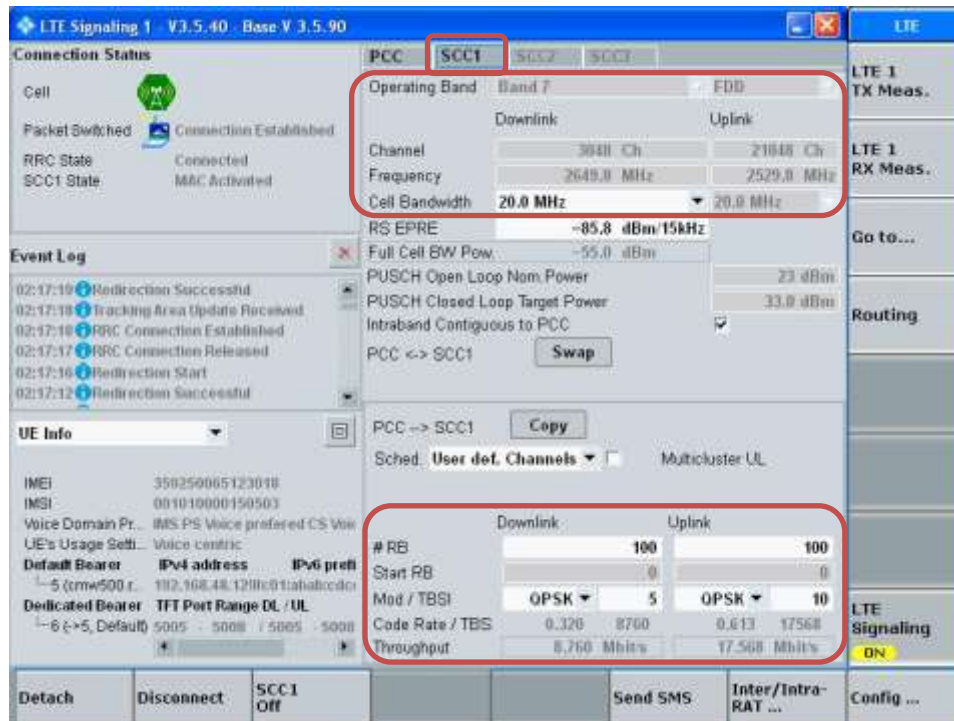
- Go to “Scenario”
- Set to “2CC CA – 2 RF Out”



- Select “SCC1” tab
- Go to “Scenario”
- Set to “2CC CA – 2 RF Out”
- Enable “Use UL”
- Enable “Intraband Contiguous to PCC”
- Select “LTE Signaling” button

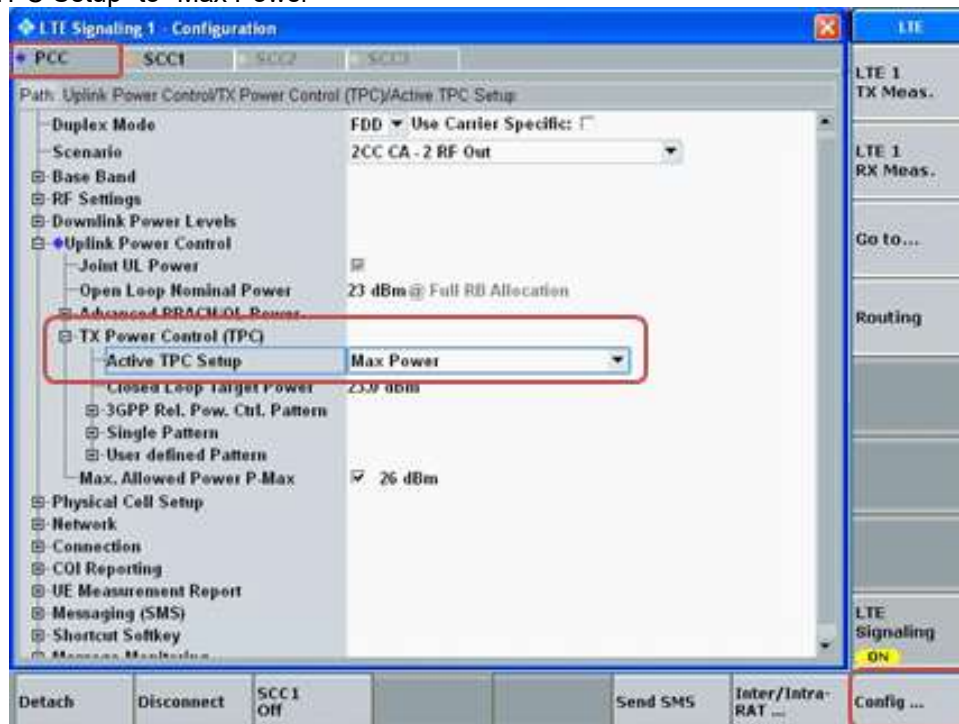


- Select “SCC1” tab
  - Select the testing Cell Bandwidth, Uplink RBs

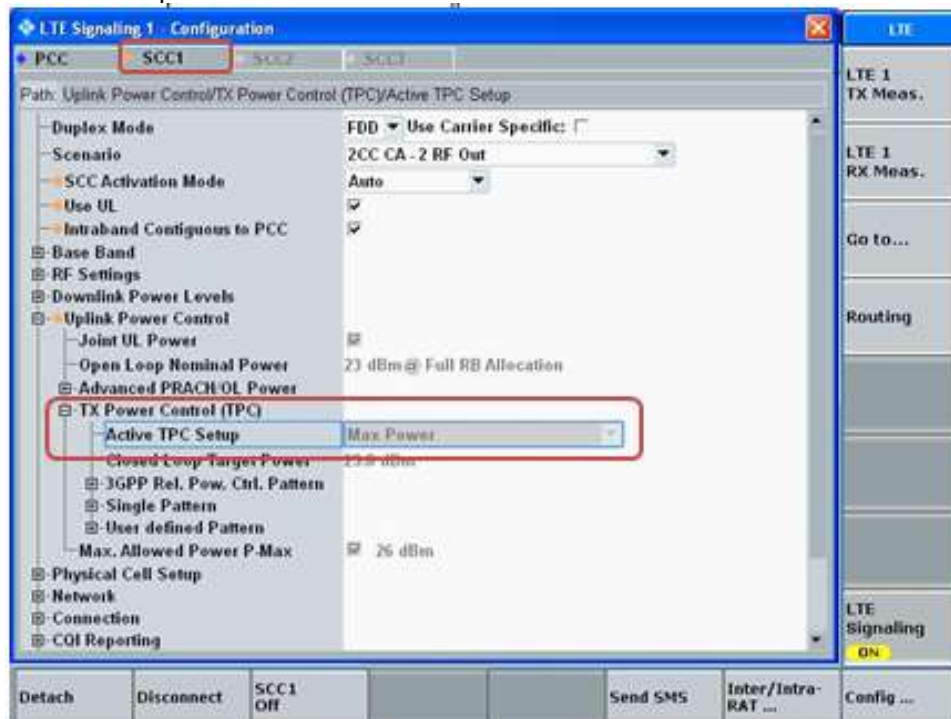


**Max Power Setting**

- Select “Config ...” button
- Select PCC tab
- Set “Active TPC Setup” to “Max Power”

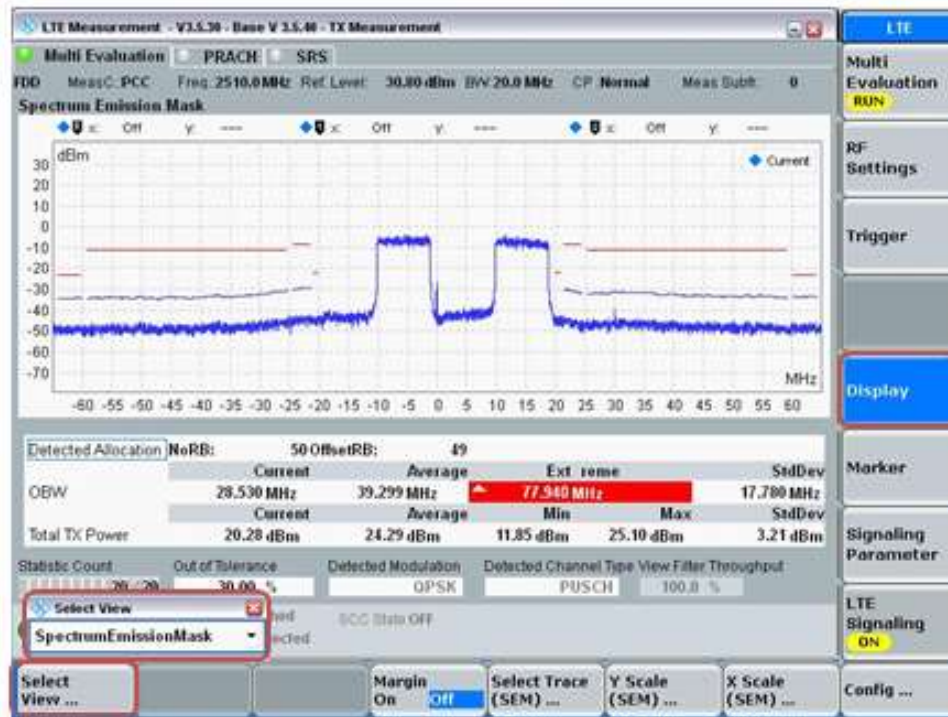


- Select SCC1 tab
- Verify that “Active TPC Setup” is set to “Max Power”



**View TX Power**

- Go to “Display”
- Select “Select View...”
- Select “Spectrum Emission Mask”



**LTE Intra-Band Contiguous Carrier Aggregation**

UL CA shall be tested based on the worst-case SAR configuration determined from non-CA SAR testing result. The channel BW, channel number, RB allocation, etc. would be selected to allow contiguous CA of PCC and SCC. Uplink output power for UL CA is the total power measured across the PCC and SCC.

UL CA power measurements were performed for each antennas (ANT1, ANT2, ANT3 and ANT4) at with QPSK modulation based on the worst-case standalone SAR.

The UL CA mode power measurements represent the total power across both carriers. Measurements were made for all supported PCC bandwidths using the channel/RB combination resulting in the highest standalone output power at the least MPR (0 dB). SCCs were set to use configurations similar to the PCC to establish conservative or worst case equivalent SAR test conditions (highest maximum power with MPR of 0 dB).

The standalone power measurement is the power for the PCC in the non-CA mode (i.e. single carrier power). In all cases the UL CA power is less than or equal to the standalone power, which is in accordance with the tune-up limits in table below.

According to November 2017 TCB workshop, Uplink CA SAR Test Guidance as follows:

- a) When the maximum output for UL CA is  $\leq$  standalone LTE mode (without CA)
  - PCC is configured according to the highest standalone SAR configuration tested
  - SCC and subsequent CCs are configured according to procedures used for power measurement and parameters (BW, RB etc.) similar to that used for the PCC
- b) When the Reported SAR for UL CA configuration, described above, is  $> 1.2$  W/kg, UL CA SAR is also required for all required test channels(PCC based)
- c) UL CA SAR is also required for standalone SAR configurations  $> 1.2$  W/kg when they are scaled to the UL CA power level

**Maximum Output Power (Tune-up Limit) for LTE UL Carrier Aggregation**

| Intra-Band Contiguous | Mode | Maximum Output Power (Tune-up Limit)<br>(dBm) |        |        |        |        |        |        |        |
|-----------------------|------|-----------------------------------------------|--------|--------|--------|--------|--------|--------|--------|
|                       |      | ANT1                                          |        | ANT2   |        | ANT3   |        | ANT4   |        |
|                       |      | Mode A                                        | Mode B | Mode A | Mode B | Mode A | Mode B | Mode A | Mode B |
| CA_5B                 | QPSK | 25.00                                         | 25.00  | 23.50  | 23.50  |        |        |        |        |
| CA_7C                 | QPSK | 25.00                                         | 21.75  | 18.75  | 20.50  | 24.50  | 21.75  | 17.00  | 18.25  |
| CA_41C (PC3)          | QPSK | 25.00                                         | 24.00  | 20.00  | 21.50  | 24.50  | 24.50  | 19.25  | 21.00  |
| CA_41C (PC2)          | QPSK | 27.00                                         | 24.00  | 20.00  | 22.75  | 26.50  | 25.00  | 19.25  | 21.00  |

**LTE CA 5B Measured Results**

| Antenna | Power Mode | Modulation | PCC      |       |    |        | SCC      |       |    |        | Standalone Power    |                      | (PCC + SCC) UL CA Power |                    |       |
|---------|------------|------------|----------|-------|----|--------|----------|-------|----|--------|---------------------|----------------------|-------------------------|--------------------|-------|
|         |            |            | BW (MHz) | Freq  | RB | Offset | BW (MHz) | Freq  | RB | Offset | Tune-Up Limit (dBm) | UL CA Inactive (dBm) | Tune-Up Limit (dBm)     | UL CA active (dBm) | Delta |
| ANT 1   | Mode A     | QPSK       | 10       | 836.5 | 1  | 49     | 5        | 843.9 | 1  | 0      | 25.70               | 25.20                | 25.00                   | 24.67              | -0.5  |
| ANT 1   | Mode B     | QPSK       | 10       | 836.5 | 1  | 49     | 5        | 843.9 | 1  | 0      | 25.70               | 25.20                | 25.00                   | 24.50              | -0.7  |
| ANT 2   | Mode A     | QPSK       | 10       | 836.5 | 1  | 49     | 5        | 843.9 | 1  | 0      | 24.50               | 24.00                | 23.50                   | 23.23              | -0.8  |
| ANT 2   | Mode B     | QPSK       | 10       | 836.5 | 1  | 49     | 5        | 843.9 | 1  | 0      | 24.50               | 24.00                | 23.50                   | 23.26              | -0.7  |

**Note(s):**

PCC RB allocation setting for UL CA has been adjusted based on the worst-case power.

**LTE CA 7C Measured Results**

| Antenna | Power Mode | Modulation | PCC      |      |    |        | SCC      |        |    |        | Standalone Power    |                      | (PCC + SCC) UL CA Power |                    |       |
|---------|------------|------------|----------|------|----|--------|----------|--------|----|--------|---------------------|----------------------|-------------------------|--------------------|-------|
|         |            |            | BW (MHz) | Freq | RB | Offset | BW (MHz) | Freq   | RB | Offset | Tune-Up Limit (dBm) | UL CA Inactive (dBm) | Tune-Up Limit (dBm)     | UL CA active (dBm) | Delta |
| ANT 1   | Mode A     | QPSK       | 20       | 2535 | 1  | 99     | 20       | 2554.8 | 1  | 0      | 25.70               | 25.40                | 25.00                   | 24.95              | -0.4  |
| ANT 1   | Mode B     | QPSK       | 20       | 2535 | 1  | 99     | 20       | 2554.8 | 1  | 0      | 21.75               | 21.70                | 21.75                   | 21.70              | 0.0   |
| ANT 2   | Mode A     | QPSK       | 20       | 2510 | 1  | 99     | 20       | 2529.8 | 1  | 0      | 18.75               | 18.60                | 18.75                   | 18.50              | -0.1  |
| ANT 2   | Mode B     | QPSK       | 20       | 2535 | 1  | 99     | 20       | 2554.8 | 1  | 0      | 20.50               | 20.50                | 20.50                   | 20.31              | -0.2  |
| ANT 3   | Mode A     | QPSK       | 20       | 2535 | 1  | 99     | 20       | 2554.8 | 1  | 0      | 25.00               | 24.50                | 24.50                   | 24.50              | 0.0   |
| ANT 3   | Mode B     | QPSK       | 20       | 2535 | 1  | 99     | 20       | 2554.8 | 1  | 0      | 21.75               | 21.50                | 21.75                   | 21.75              | 0.3   |
| ANT 4   | Mode A     | QPSK       | 20       | 2560 | 1  | 0      | 20       | 2540.2 | 1  | 99     | 17.00               | 16.80                | 17.00                   | 16.95              | 0.1   |
| ANT 4   | Mode B     | QPSK       | 20       | 2535 | 1  | 99     | 20       | 2554.8 | 1  | 0      | 18.25               | 17.80                | 18.25                   | 18.20              | 0.4   |

**Note(s):**

PCC RB allocation setting for UL CA has been adjusted based on the worst-case power.

**LTE CA 41C (PC3) Measured Results**

| Antenna | Power Mode | Modulation | PCC      |        |    |        | SCC      |        |    |        | Standalone Power    |                      | (PCC + SCC) UL CA Power |                    |       |
|---------|------------|------------|----------|--------|----|--------|----------|--------|----|--------|---------------------|----------------------|-------------------------|--------------------|-------|
|         |            |            | BW (MHz) | Freq   | RB | Offset | BW (MHz) | Freq   | RB | Offset | Tune-Up Limit (dBm) | UL CA Inactive (dBm) | Tune-Up Limit (dBm)     | UL CA active (dBm) | Delta |
| ANT 1   | Mode A     | QPSK       | 20       | 2593   | 1  | 99     | 20       | 2612.8 | 1  | 0      | 25.70               | 25.60                | 25.00                   | 24.87              | -0.7  |
| ANT 1   | Mode B     | QPSK       | 20       | 2506   | 1  | 99     | 20       | 2525.8 | 1  | 0      | 24.00               | 23.75                | 24.00                   | 23.89              | 0.1   |
| ANT 2   | Mode A     | QPSK       | 20       | 2593   | 1  | 99     | 20       | 2612.8 | 1  | 0      | 20.00               | 19.75                | 20.00                   | 19.63              | -0.1  |
| ANT 2   | Mode B     | QPSK       | 20       | 2506   | 1  | 99     | 20       | 2525.8 | 1  | 0      | 22.75               | 22.75                | 21.50                   | 21.47              | -1.3  |
| ANT 3   | Mode A     | QPSK       | 20       | 2593   | 1  | 99     | 20       | 2612.8 | 1  | 0      | 25.50               | 25.47                | 24.50                   | 24.41              | -1.1  |
| ANT 3   | Mode B     | QPSK       | 20       | 2680   | 1  | 0      | 20       | 2660.2 | 1  | 99     | 24.50               | 24.35                | 24.50                   | 24.00              | -0.4  |
| ANT 4   | Mode A     | QPSK       | 20       | 2636.5 | 1  | 99     | 20       | 2656.3 | 1  | 0      | 19.25               | 19.10                | 19.25                   | 19.25              | 0.1   |
| ANT 4   | Mode B     | QPSK       | 20       | 2680   | 1  | 0      | 20       | 2660.2 | 1  | 99     | 21.00               | 20.70                | 21.00                   | 20.94              | 0.2   |

**Note(s):**

1. PCC RB allocation setting for UL CA has been adjusted based on the worst-case power.
2. Additional SAR for UL CA PC2 is not required. Test reduction has been applied base on standalone SAR.
3. SAR evaluation for PC2 is only required when its Maximum output power (Tune-up Limit) is higher from PC3.

**LTE Inter-Band Carrier Aggregation**

According to October 2018 TCB workshop, Uplink CA SAR Test Guidance as follows:

- Provide the single uplink SAR values you have obtained for the relevant SAR configurations and frequency bands that employ inter-band uplink carrier aggregation.
- If the single uplink 1-g SAR values for each band are both less than 0.8 W/kg and the algebraic summation of the 1-g SAR values are less than 1.45 W/kg no additional measurements need to be performed.
- If one of the single uplink 1-g SAR values is greater than 0.8 W/kg, instead of algebraically summing the 1-g SAR values, sum up the SAR distributions, similar to the enlarged zoom scan (volume scan) procedures found in FCC KDB Publication 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04.
- If the algebraic sum of the 1-g SAR values is > 1.45 W/kg additional measurements may have to be made. Submit a KDB inquiry for additional guidance.

**Maximum Output Power (Tune-up Limit) and SAR test exemption for LTE UL Carrier Aggregation**

Test positions and test channels used for the testing below are based on the standalone worst-case SAR results. UL CA is reduced by 3dB therefore power and SAR was estimated based on standalone results.

| UL CA inter-bands | RF Exposure Conditions | Antenna Ports |    |      |     | Standalone worst-case position |       |                         |       | UL CA                      |       |                         |       |              |
|-------------------|------------------------|---------------|----|------|-----|--------------------------------|-------|-------------------------|-------|----------------------------|-------|-------------------------|-------|--------------|
|                   |                        |               |    |      |     | Tune-up Limit (dBm)            |       | Reported 1-g SAR (W/kg) |       | Tune-up Limit (-3dB) (dBm) |       | Reported 1-g SAR (W/kg) |       |              |
|                   |                        | CC1           |    | CC2  |     | CC1                            | CC2   | CC1                     | CC2   | CC1                        | CC2   | CC1                     | CC2   | CC1+CC2      |
| CA_2A-5A          | Head                   | ANT1          | 2A | ANT2 | 5A  | 25.70                          | 24.50 | 0.607                   | 0.542 | 22.70                      | 21.50 | 0.304                   | 0.272 | <b>0.576</b> |
|                   |                        | ANT2          | 2A | ANT1 | 5A  | 20.50                          | 25.70 | 0.899                   | 0.289 | 17.50                      | 22.70 | 0.451                   | 0.145 | <b>0.595</b> |
|                   |                        | ANT3          | 2A | ANT1 | 5A  | 25.00                          | 25.70 | 0.368                   | 0.289 | 22.00                      | 22.70 | 0.184                   | 0.145 | <b>0.329</b> |
|                   |                        | ANT3          | 2A | ANT2 | 5A  | 25.00                          | 24.50 | 0.368                   | 0.542 | 22.00                      | 21.50 | 0.184                   | 0.272 | <b>0.456</b> |
|                   |                        | ANT4          | 2A | ANT1 | 5A  | 18.75                          | 25.70 | 0.893                   | 0.289 | 15.75                      | 22.70 | 0.448                   | 0.145 | <b>0.592</b> |
|                   |                        | ANT4          | 2A | ANT2 | 5A  | 18.75                          | 24.50 | 0.893                   | 0.542 | 15.75                      | 21.50 | 0.448                   | 0.272 | <b>0.719</b> |
|                   | Body                   | ANT1          | 2A | ANT2 | 5A  | 21.75                          | 24.50 | 0.997                   | 0.412 | 18.75                      | 21.50 | 0.500                   | 0.206 | <b>0.706</b> |
|                   |                        | ANT2          | 2A | ANT1 | 5A  | 18.50                          | 25.70 | 0.877                   | 0.596 | 15.50                      | 22.70 | 0.440                   | 0.299 | <b>0.738</b> |
|                   |                        | ANT3          | 2A | ANT1 | 5A  | 19.75                          | 25.70 | 0.967                   | 0.596 | 16.75                      | 22.70 | 0.485                   | 0.299 | <b>0.783</b> |
|                   |                        | ANT3          | 2A | ANT2 | 5A  | 19.75                          | 24.50 | 0.967                   | 0.412 | 16.75                      | 21.50 | 0.485                   | 0.206 | <b>0.691</b> |
|                   |                        | ANT4          | 2A | ANT1 | 5A  | 20.00                          | 25.70 | 0.892                   | 0.596 | 17.00                      | 22.70 | 0.447                   | 0.299 | <b>0.746</b> |
|                   |                        | ANT4          | 2A | ANT2 | 5A  | 20.00                          | 24.50 | 0.892                   | 0.412 | 17.00                      | 21.50 | 0.447                   | 0.206 | <b>0.654</b> |
| CA_2A-12A         | Head                   | ANT1          | 2A | ANT2 | 12A | 25.70                          | 24.50 | 0.607                   | 0.554 | 22.70                      | 21.50 | 0.304                   | 0.278 | <b>0.582</b> |
|                   |                        | ANT2          | 2A | ANT1 | 12A | 20.50                          | 25.70 | 0.899                   | 0.180 | 17.50                      | 22.70 | 0.451                   | 0.090 | <b>0.541</b> |
|                   |                        | ANT3          | 2A | ANT1 | 12A | 25.00                          | 25.70 | 0.368                   | 0.180 | 22.00                      | 22.70 | 0.184                   | 0.090 | <b>0.275</b> |
|                   |                        | ANT3          | 2A | ANT2 | 12A | 25.00                          | 24.50 | 0.368                   | 0.554 | 22.00                      | 21.50 | 0.184                   | 0.278 | <b>0.462</b> |
|                   |                        | ANT4          | 2A | ANT1 | 12A | 18.75                          | 25.70 | 0.893                   | 0.180 | 15.75                      | 22.70 | 0.448                   | 0.090 | <b>0.538</b> |
|                   |                        | ANT4          | 2A | ANT2 | 12A | 18.75                          | 24.50 | 0.893                   | 0.554 | 15.75                      | 21.50 | 0.448                   | 0.278 | <b>0.725</b> |
|                   | Body                   | ANT1          | 2A | ANT2 | 12A | 21.75                          | 24.50 | 0.997                   | 0.435 | 18.75                      | 21.50 | 0.500                   | 0.218 | <b>0.718</b> |
|                   |                        | ANT2          | 2A | ANT1 | 12A | 18.50                          | 25.70 | 0.877                   | 0.700 | 15.50                      | 22.70 | 0.440                   | 0.351 | <b>0.790</b> |
|                   |                        | ANT3          | 2A | ANT1 | 12A | 19.75                          | 25.70 | 0.967                   | 0.700 | 16.75                      | 22.70 | 0.485                   | 0.351 | <b>0.835</b> |
|                   |                        | ANT3          | 2A | ANT2 | 12A | 19.75                          | 24.50 | 0.967                   | 0.435 | 16.75                      | 21.50 | 0.485                   | 0.218 | <b>0.703</b> |
|                   |                        | ANT4          | 2A | ANT1 | 12A | 20.00                          | 25.70 | 0.892                   | 0.700 | 17.00                      | 22.70 | 0.447                   | 0.351 | <b>0.798</b> |
|                   |                        | ANT4          | 2A | ANT2 | 12A | 20.00                          | 24.50 | 0.892                   | 0.435 | 17.00                      | 21.50 | 0.447                   | 0.218 | <b>0.665</b> |
| CA_2A-13A         | Head                   | ANT1          | 2A | ANT2 | 13A | 25.70                          | 24.50 | 0.607                   | 0.499 | 22.70                      | 21.50 | 0.304                   | 0.250 | <b>0.554</b> |
|                   |                        | ANT2          | 2A | ANT1 | 13A | 20.50                          | 25.70 | 0.899                   | 0.194 | 17.50                      | 22.70 | 0.451                   | 0.097 | <b>0.548</b> |
|                   |                        | ANT3          | 2A | ANT1 | 13A | 25.00                          | 25.70 | 0.368                   | 0.194 | 22.00                      | 22.70 | 0.184                   | 0.097 | <b>0.282</b> |
|                   |                        | ANT3          | 2A | ANT2 | 13A | 25.00                          | 24.50 | 0.368                   | 0.499 | 22.00                      | 21.50 | 0.184                   | 0.250 | <b>0.435</b> |
|                   |                        | ANT4          | 2A | ANT1 | 13A | 18.75                          | 25.70 | 0.893                   | 0.194 | 15.75                      | 22.70 | 0.448                   | 0.097 | <b>0.545</b> |
|                   |                        | ANT4          | 2A | ANT2 | 13A | 18.75                          | 24.50 | 0.893                   | 0.499 | 15.75                      | 21.50 | 0.448                   | 0.250 | <b>0.698</b> |
|                   | Body                   | ANT1          | 2A | ANT2 | 13A | 21.75                          | 24.50 | 0.997                   | 0.405 | 18.75                      | 21.50 | 0.500                   | 0.203 | <b>0.703</b> |
|                   |                        | ANT2          | 2A | ANT1 | 13A | 18.50                          | 25.70 | 0.877                   | 0.743 | 15.50                      | 22.70 | 0.440                   | 0.372 | <b>0.812</b> |
|                   |                        | ANT3          | 2A | ANT1 | 13A | 19.75                          | 25.70 | 0.967                   | 0.743 | 16.75                      | 22.70 | 0.485                   | 0.372 | <b>0.857</b> |
|                   |                        | ANT3          | 2A | ANT2 | 13A | 19.75                          | 24.50 | 0.967                   | 0.405 | 16.75                      | 21.50 | 0.485                   | 0.203 | <b>0.688</b> |
|                   |                        | ANT4          | 2A | ANT1 | 13A | 20.00                          | 25.70 | 0.892                   | 0.743 | 17.00                      | 22.70 | 0.447                   | 0.372 | <b>0.819</b> |
|                   |                        | ANT4          | 2A | ANT2 | 13A | 20.00                          | 24.50 | 0.892                   | 0.405 | 17.00                      | 21.50 | 0.447                   | 0.203 | <b>0.650</b> |

| UL CA inter-bands | RF Exposure Conditions | Antenna Ports |    |      |     | Standalone worst-case position |       |                         |       | UL CA                      |       |                         |       |         |
|-------------------|------------------------|---------------|----|------|-----|--------------------------------|-------|-------------------------|-------|----------------------------|-------|-------------------------|-------|---------|
|                   |                        |               |    |      |     | Tune-up Limit (dBm)            |       | Reported 1-g SAR (W/kg) |       | Tune-up Limit (-3dB) (dBm) |       | Reported 1-g SAR (W/kg) |       |         |
|                   |                        | CC1           |    | CC2  |     | CC1                            | CC2   | CC1                     | CC2   | CC1                        | CC2   | CC1                     | CC2   | CC1+CC2 |
| CA_2A-14A         | Head                   | ANT1          | 2A | ANT2 | 14A | 25.70                          | 24.50 | 0.607                   | 0.397 | 22.70                      | 21.50 | 0.304                   | 0.199 | 0.503   |
|                   |                        | ANT2          | 2A | ANT1 | 14A | 20.50                          | 25.70 | 0.899                   | 0.223 | 17.50                      | 22.70 | 0.451                   | 0.112 | 0.562   |
|                   |                        | ANT3          | 2A | ANT1 | 14A | 25.00                          | 25.70 | 0.368                   | 0.223 | 22.00                      | 22.70 | 0.184                   | 0.112 | 0.296   |
|                   |                        | ANT3          | 2A | ANT2 | 14A | 25.00                          | 24.50 | 0.368                   | 0.397 | 22.00                      | 21.50 | 0.184                   | 0.199 | 0.383   |
|                   |                        | ANT4          | 2A | ANT1 | 14A | 18.75                          | 25.70 | 0.893                   | 0.223 | 15.75                      | 22.70 | 0.448                   | 0.112 | 0.559   |
|                   | Body                   | ANT4          | 2A | ANT2 | 14A | 18.75                          | 24.50 | 0.893                   | 0.397 | 15.75                      | 21.50 | 0.448                   | 0.199 | 0.647   |
|                   |                        | ANT1          | 2A | ANT2 | 14A | 21.75                          | 24.50 | 0.997                   | 0.376 | 18.75                      | 21.50 | 0.500                   | 0.188 | 0.688   |
|                   |                        | ANT2          | 2A | ANT1 | 14A | 18.50                          | 25.70 | 0.877                   | 0.847 | 15.50                      | 22.70 | 0.440                   | 0.425 | 0.864   |
|                   |                        | ANT3          | 2A | ANT1 | 14A | 19.75                          | 25.70 | 0.967                   | 0.847 | 16.75                      | 22.70 | 0.485                   | 0.425 | 0.909   |
|                   |                        | ANT3          | 2A | ANT2 | 14A | 19.75                          | 24.50 | 0.967                   | 0.376 | 16.75                      | 21.50 | 0.485                   | 0.188 | 0.673   |
| CA_4A-5A          | Head                   | ANT4          | 2A | ANT1 | 14A | 20.00                          | 25.70 | 0.892                   | 0.847 | 17.00                      | 22.70 | 0.447                   | 0.425 | 0.872   |
|                   |                        | ANT4          | 2A | ANT2 | 14A | 20.00                          | 24.50 | 0.892                   | 0.376 | 17.00                      | 21.50 | 0.447                   | 0.188 | 0.636   |
|                   | Body                   | ANT1          | 4A | ANT2 | 5A  | 25.70                          | 24.50 | 0.230                   | 0.542 | 22.70                      | 21.50 | 0.115                   | 0.272 | 0.387   |
|                   |                        | ANT2          | 4A | ANT1 | 5A  | 22.00                          | 25.70 | 0.892                   | 0.289 | 19.00                      | 22.70 | 0.447                   | 0.145 | 0.592   |
|                   |                        | ANT3          | 4A | ANT1 | 5A  | 25.00                          | 25.70 | 0.317                   | 0.289 | 22.00                      | 22.70 | 0.159                   | 0.145 | 0.304   |
|                   | Body                   | ANT3          | 4A | ANT2 | 5A  | 25.00                          | 24.50 | 0.317                   | 0.542 | 22.00                      | 21.50 | 0.159                   | 0.272 | 0.431   |
|                   |                        | ANT4          | 4A | ANT1 | 5A  | 21.00                          | 25.70 | 0.872                   | 0.289 | 18.00                      | 22.70 | 0.437                   | 0.145 | 0.582   |
|                   |                        | ANT4          | 4A | ANT2 | 5A  | 21.00                          | 24.50 | 0.872                   | 0.542 | 18.00                      | 21.50 | 0.437                   | 0.272 | 0.709   |
|                   |                        | ANT1          | 4A | ANT2 | 5A  | 18.00                          | 24.50 | 0.946                   | 0.412 | 15.00                      | 21.50 | 0.474                   | 0.206 | 0.681   |
|                   |                        | ANT2          | 4A | ANT1 | 5A  | 20.00                          | 25.70 | 0.881                   | 0.596 | 17.00                      | 22.70 | 0.442                   | 0.299 | 0.740   |
|                   |                        | ANT3          | 4A | ANT1 | 5A  | 21.75                          | 25.70 | 0.942                   | 0.596 | 18.75                      | 22.70 | 0.472                   | 0.299 | 0.771   |
| CA_4A-12A         | Head                   | ANT3          | 4A | ANT2 | 5A  | 21.75                          | 24.50 | 0.942                   | 0.412 | 18.75                      | 21.50 | 0.472                   | 0.206 | 0.679   |
|                   |                        | ANT4          | 4A | ANT1 | 5A  | 22.25                          | 25.70 | 0.899                   | 0.596 | 19.25                      | 22.70 | 0.451                   | 0.299 | 0.749   |
|                   |                        | ANT4          | 4A | ANT2 | 5A  | 22.25                          | 24.50 | 0.899                   | 0.412 | 19.25                      | 21.50 | 0.451                   | 0.206 | 0.657   |
|                   | Body                   | ANT1          | 4A | ANT2 | 12A | 25.70                          | 24.50 | 0.230                   | 0.554 | 22.70                      | 21.50 | 0.115                   | 0.278 | 0.393   |
|                   |                        | ANT2          | 4A | ANT1 | 12A | 22.00                          | 25.70 | 0.892                   | 0.180 | 19.00                      | 22.70 | 0.447                   | 0.090 | 0.537   |
|                   |                        | ANT3          | 4A | ANT1 | 12A | 25.00                          | 25.70 | 0.317                   | 0.180 | 22.00                      | 22.70 | 0.159                   | 0.090 | 0.249   |
|                   |                        | ANT3          | 4A | ANT2 | 12A | 25.00                          | 24.50 | 0.317                   | 0.554 | 22.00                      | 21.50 | 0.159                   | 0.278 | 0.437   |
|                   |                        | ANT4          | 4A | ANT1 | 12A | 21.00                          | 25.70 | 0.872                   | 0.180 | 18.00                      | 22.70 | 0.437                   | 0.090 | 0.527   |
|                   | Body                   | ANT4          | 4A | ANT2 | 12A | 21.00                          | 24.50 | 0.872                   | 0.554 | 18.00                      | 21.50 | 0.437                   | 0.278 | 0.715   |
|                   |                        | ANT1          | 4A | ANT2 | 12A | 18.00                          | 24.50 | 0.946                   | 0.435 | 15.00                      | 21.50 | 0.474                   | 0.218 | 0.692   |
|                   |                        | ANT2          | 4A | ANT1 | 12A | 20.00                          | 25.70 | 0.881                   | 0.700 | 17.00                      | 22.70 | 0.442                   | 0.351 | 0.792   |
|                   |                        | ANT3          | 4A | ANT1 | 12A | 21.75                          | 25.70 | 0.942                   | 0.700 | 18.75                      | 22.70 | 0.472                   | 0.351 | 0.823   |
|                   |                        | ANT3          | 4A | ANT2 | 12A | 21.75                          | 24.50 | 0.942                   | 0.435 | 18.75                      | 21.50 | 0.472                   | 0.218 | 0.690   |
| CA_4A-13A         | Head                   | ANT4          | 4A | ANT1 | 12A | 22.25                          | 25.70 | 0.899                   | 0.700 | 19.25                      | 22.70 | 0.451                   | 0.351 | 0.801   |
|                   |                        | ANT4          | 4A | ANT2 | 12A | 22.25                          | 24.50 | 0.899                   | 0.435 | 19.25                      | 21.50 | 0.451                   | 0.218 | 0.669   |
|                   | Body                   | ANT1          | 4A | ANT2 | 13A | 25.70                          | 24.50 | 0.230                   | 0.499 | 22.70                      | 21.50 | 0.115                   | 0.250 | 0.365   |
|                   |                        | ANT2          | 4A | ANT1 | 13A | 22.00                          | 25.70 | 0.892                   | 0.194 | 19.00                      | 22.70 | 0.447                   | 0.097 | 0.544   |
|                   |                        | ANT3          | 4A | ANT1 | 13A | 25.00                          | 25.70 | 0.317                   | 0.194 | 22.00                      | 22.70 | 0.159                   | 0.097 | 0.256   |
|                   |                        | ANT3          | 4A | ANT2 | 13A | 25.00                          | 24.50 | 0.317                   | 0.499 | 22.00                      | 21.50 | 0.159                   | 0.250 | 0.409   |
|                   |                        | ANT4          | 4A | ANT1 | 13A | 21.00                          | 25.70 | 0.872                   | 0.194 | 18.00                      | 22.70 | 0.437                   | 0.097 | 0.534   |
|                   | Body                   | ANT4          | 4A | ANT2 | 13A | 21.00                          | 24.50 | 0.872                   | 0.499 | 18.00                      | 21.50 | 0.437                   | 0.250 | 0.687   |
|                   |                        | ANT1          | 4A | ANT2 | 13A | 18.00                          | 24.50 | 0.946                   | 0.405 | 15.00                      | 21.50 | 0.474                   | 0.203 | 0.677   |
|                   |                        | ANT2          | 4A | ANT1 | 13A | 20.00                          | 25.70 | 0.881                   | 0.743 | 17.00                      | 22.70 | 0.442                   | 0.372 | 0.814   |
|                   |                        | ANT3          | 4A | ANT1 | 13A | 21.75                          | 25.70 | 0.942                   | 0.743 | 18.75                      | 22.70 | 0.472                   | 0.372 | 0.845   |
| CA_5A-7A          | Head                   | ANT3          | 4A | ANT2 | 13A | 21.75                          | 24.50 | 0.942                   | 0.405 | 18.75                      | 21.50 | 0.472                   | 0.203 | 0.675   |
|                   |                        | ANT4          | 4A | ANT1 | 13A | 22.25                          | 25.70 | 0.899                   | 0.743 | 19.25                      | 22.70 | 0.451                   | 0.372 | 0.823   |
|                   |                        | ANT4          | 4A | ANT2 | 13A | 22.25                          | 24.50 | 0.899                   | 0.405 | 19.25                      | 21.50 | 0.451                   | 0.203 | 0.654   |
|                   | Body                   | ANT1          | 5A | ANT2 | 7A  | 25.70                          | 18.75 | 0.289                   | 0.886 | 22.70                      | 15.75 | 0.145                   | 0.444 | 0.589   |
|                   |                        | ANT1          | 5A | ANT3 | 7A  | 25.70                          | 25.00 | 0.289                   | 0.480 | 22.70                      | 22.00 | 0.145                   | 0.241 | 0.385   |
|                   |                        | ANT1          | 5A | ANT4 | 7A  | 25.70                          | 17.00 | 0.289                   | 0.897 | 22.70                      | 14.00 | 0.145                   | 0.450 | 0.594   |
|                   |                        | ANT2          | 5A | ANT1 | 7A  | 24.50                          | 25.70 | 0.542                   | 0.264 | 21.50                      | 22.70 | 0.272                   | 0.132 | 0.404   |
|                   |                        | ANT2          | 5A | ANT3 | 7A  | 24.50                          | 25.00 | 0.542                   | 0.480 | 21.50                      | 22.00 | 0.272                   | 0.241 | 0.512   |
|                   | Body                   | ANT2          | 5A | ANT4 | 7A  | 24.50                          | 17.00 | 0.542                   | 0.897 | 21.50                      | 14.00 | 0.272                   | 0.450 | 0.721   |
|                   |                        | ANT1          | 5A | ANT2 | 7A  | 25.70                          | 20.50 | 0.596                   | 0.899 | 22.70                      | 17.50 | 0.299                   | 0.451 | 0.749   |
|                   |                        | ANT1          | 5A | ANT3 | 7A  | 25.70                          | 21.75 | 0.596                   | 0.996 | 22.70                      | 18.75 | 0.299                   | 0.499 | 0.798   |
|                   |                        | ANT1          | 5A | ANT4 | 7A  | 25.70                          | 18.25 | 0.596                   | 0.897 | 22.70                      | 15.25 | 0.299                   | 0.450 | 0.748   |
|                   |                        | ANT2          | 5A | ANT1 | 7A  | 24.50                          | 21.75 | 0.412                   | 0.984 | 21.50                      | 18.75 | 0.206                   | 0.493 | 0.700   |
|                   | Body                   | ANT2          | 5A | ANT3 | 7A  | 24.50                          | 21.75 | 0.412                   | 0.996 | 21.50                      | 18.75 | 0.206                   | 0.499 | 0.706   |
|                   |                        | ANT2          | 5A | ANT4 | 7A  | 24.50                          | 18.25 | 0.412                   | 0.897 | 21.50                      | 15.25 | 0.206                   | 0.450 | 0.656   |

| UL CA inter-bands | RF Exposure Conditions | Antenna Ports |     |      |     | Standalone worst-case position |       |                         |       | UL CA                      |       |                         |       |         |
|-------------------|------------------------|---------------|-----|------|-----|--------------------------------|-------|-------------------------|-------|----------------------------|-------|-------------------------|-------|---------|
|                   |                        |               |     |      |     | Tune-up Limit (dBm)            |       | Reported 1-g SAR (W/kg) |       | Tune-up Limit (-3dB) (dBm) |       | Reported 1-g SAR (W/kg) |       |         |
|                   |                        | CC1           |     | CC2  |     | CC1                            | CC2   | CC1                     | CC2   | CC1                        | CC2   | CC1                     | CC2   | CC1+CC2 |
| CA_5A-66A         | Head                   | ANT1          | 5A  | ANT2 | 66A | 25.70                          | 22.00 | 0.289                   | 0.892 | 22.70                      | 19.00 | 0.145                   | 0.447 | 0.592   |
|                   |                        | ANT1          | 5A  | ANT3 | 66A | 25.70                          | 25.00 | 0.289                   | 0.317 | 22.70                      | 22.00 | 0.145                   | 0.159 | 0.304   |
|                   |                        | ANT1          | 5A  | ANT4 | 66A | 25.70                          | 21.00 | 0.289                   | 0.872 | 22.70                      | 18.00 | 0.145                   | 0.437 | 0.582   |
|                   |                        | ANT2          | 5A  | ANT1 | 66A | 24.50                          | 25.70 | 0.542                   | 0.230 | 21.50                      | 22.70 | 0.272                   | 0.115 | 0.387   |
|                   |                        | ANT2          | 5A  | ANT3 | 66A | 24.50                          | 25.00 | 0.542                   | 0.317 | 21.50                      | 22.00 | 0.272                   | 0.159 | 0.431   |
|                   | Body                   | ANT2          | 5A  | ANT4 | 66A | 24.50                          | 21.00 | 0.542                   | 0.872 | 21.50                      | 18.00 | 0.272                   | 0.437 | 0.709   |
|                   |                        | ANT1          | 5A  | ANT2 | 66A | 25.70                          | 20.00 | 0.596                   | 0.881 | 22.70                      | 17.00 | 0.299                   | 0.442 | 0.740   |
|                   |                        | ANT1          | 5A  | ANT3 | 66A | 25.70                          | 21.75 | 0.596                   | 0.942 | 22.70                      | 18.75 | 0.299                   | 0.472 | 0.771   |
|                   |                        | ANT1          | 5A  | ANT4 | 66A | 25.70                          | 22.25 | 0.596                   | 0.899 | 22.70                      | 19.25 | 0.299                   | 0.451 | 0.749   |
|                   |                        | ANT2          | 5A  | ANT1 | 66A | 24.50                          | 18.00 | 0.412                   | 0.946 | 21.50                      | 15.00 | 0.206                   | 0.474 | 0.681   |
| CA_12A-30A        | Head                   | ANT2          | 5A  | ANT3 | 66A | 24.50                          | 21.75 | 0.412                   | 0.942 | 21.50                      | 18.75 | 0.206                   | 0.472 | 0.679   |
|                   |                        | ANT2          | 5A  | ANT4 | 66A | 24.50                          | 22.25 | 0.412                   | 0.899 | 21.50                      | 19.25 | 0.206                   | 0.451 | 0.657   |
|                   | Body                   | ANT1          | 12A | ANT2 | 30A | 25.70                          | 21.00 | 0.180                   | 0.844 | 22.70                      | 18.00 | 0.090                   | 0.423 | 0.513   |
|                   |                        | ANT1          | 12A | ANT3 | 30A | 25.70                          | 24.50 | 0.180                   | 0.475 | 22.70                      | 21.50 | 0.090                   | 0.238 | 0.328   |
|                   |                        | ANT1          | 12A | ANT4 | 30A | 25.70                          | 17.50 | 0.180                   | 0.844 | 22.70                      | 14.50 | 0.090                   | 0.423 | 0.513   |
|                   |                        | ANT2          | 12A | ANT1 | 30A | 24.50                          | 25.70 | 0.554                   | 0.510 | 21.50                      | 22.70 | 0.278                   | 0.256 | 0.533   |
|                   |                        | ANT2          | 12A | ANT3 | 30A | 24.50                          | 24.50 | 0.554                   | 0.475 | 21.50                      | 21.50 | 0.278                   | 0.238 | 0.516   |
| CA_12A-66A        | Head                   | ANT2          | 12A | ANT4 | 30A | 24.50                          | 17.50 | 0.554                   | 0.844 | 21.50                      | 14.50 | 0.278                   | 0.423 | 0.701   |
|                   |                        | ANT1          | 12A | ANT2 | 30A | 25.70                          | 20.50 | 0.700                   | 0.866 | 22.70                      | 17.50 | 0.351                   | 0.434 | 0.785   |
|                   |                        | ANT1          | 12A | ANT3 | 30A | 25.70                          | 20.75 | 0.700                   | 0.991 | 22.70                      | 17.75 | 0.351                   | 0.497 | 0.848   |
|                   |                        | ANT1          | 12A | ANT4 | 30A | 25.70                          | 19.00 | 0.700                   | 0.895 | 22.70                      | 16.00 | 0.351                   | 0.449 | 0.799   |
|                   |                        | ANT2          | 12A | ANT1 | 30A | 24.50                          | 22.00 | 0.435                   | 0.981 | 21.50                      | 19.00 | 0.218                   | 0.492 | 0.710   |
|                   | Body                   | ANT2          | 12A | ANT3 | 30A | 24.50                          | 20.75 | 0.435                   | 0.991 | 21.50                      | 17.75 | 0.218                   | 0.497 | 0.715   |
|                   |                        | ANT2          | 12A | ANT4 | 30A | 24.50                          | 19.00 | 0.435                   | 0.895 | 21.50                      | 16.00 | 0.218                   | 0.449 | 0.667   |
|                   |                        | ANT1          | 12A | ANT2 | 66A | 25.70                          | 22.00 | 0.180                   | 0.892 | 22.70                      | 19.00 | 0.090                   | 0.447 | 0.537   |
|                   |                        | ANT1          | 12A | ANT3 | 66A | 25.70                          | 25.00 | 0.180                   | 0.317 | 22.70                      | 22.00 | 0.090                   | 0.159 | 0.249   |
|                   |                        | ANT1          | 12A | ANT4 | 66A | 25.70                          | 21.00 | 0.180                   | 0.872 | 22.70                      | 18.00 | 0.090                   | 0.437 | 0.527   |
| CA_13A-66A        | Head                   | ANT2          | 12A | ANT1 | 66A | 24.50                          | 25.70 | 0.554                   | 0.230 | 21.50                      | 22.70 | 0.278                   | 0.115 | 0.393   |
|                   |                        | ANT2          | 12A | ANT3 | 66A | 24.50                          | 25.00 | 0.554                   | 0.317 | 21.50                      | 22.00 | 0.278                   | 0.159 | 0.437   |
|                   |                        | ANT2          | 12A | ANT4 | 66A | 24.50                          | 21.00 | 0.554                   | 0.872 | 21.50                      | 18.00 | 0.278                   | 0.437 | 0.715   |
|                   |                        | ANT1          | 12A | ANT2 | 66A | 25.70                          | 20.00 | 0.700                   | 0.881 | 22.70                      | 17.00 | 0.351                   | 0.442 | 0.792   |
|                   |                        | ANT1          | 12A | ANT3 | 66A | 25.70                          | 21.75 | 0.700                   | 0.942 | 22.70                      | 18.75 | 0.351                   | 0.472 | 0.823   |
|                   | Body                   | ANT1          | 12A | ANT4 | 66A | 25.70                          | 22.25 | 0.700                   | 0.899 | 22.70                      | 19.25 | 0.351                   | 0.451 | 0.801   |
|                   |                        | ANT2          | 12A | ANT1 | 66A | 24.50                          | 18.00 | 0.435                   | 0.946 | 21.50                      | 15.00 | 0.218                   | 0.474 | 0.692   |
|                   |                        | ANT2          | 12A | ANT3 | 66A | 24.50                          | 21.75 | 0.435                   | 0.942 | 21.50                      | 18.75 | 0.218                   | 0.472 | 0.690   |
|                   |                        | ANT2          | 12A | ANT4 | 66A | 24.50                          | 22.25 | 0.435                   | 0.899 | 21.50                      | 19.25 | 0.218                   | 0.451 | 0.669   |
|                   |                        | ANT1          | 13A | ANT2 | 66A | 25.70                          | 22.00 | 0.194                   | 0.892 | 22.70                      | 19.00 | 0.097                   | 0.447 | 0.544   |
| CA_14A-30A        | Head                   | ANT1          | 13A | ANT3 | 66A | 25.70                          | 25.00 | 0.194                   | 0.317 | 22.70                      | 22.00 | 0.097                   | 0.159 | 0.256   |
|                   |                        | ANT1          | 13A | ANT4 | 66A | 25.70                          | 21.00 | 0.194                   | 0.872 | 22.70                      | 18.00 | 0.097                   | 0.437 | 0.534   |
|                   |                        | ANT2          | 13A | ANT1 | 66A | 24.50                          | 25.70 | 0.499                   | 0.230 | 21.50                      | 22.70 | 0.250                   | 0.115 | 0.365   |
|                   |                        | ANT2          | 13A | ANT3 | 66A | 24.50                          | 25.00 | 0.499                   | 0.317 | 21.50                      | 22.00 | 0.250                   | 0.159 | 0.409   |
|                   |                        | ANT2          | 13A | ANT4 | 66A | 24.50                          | 21.00 | 0.499                   | 0.872 | 21.50                      | 18.00 | 0.250                   | 0.437 | 0.687   |
|                   | Body                   | ANT1          | 13A | ANT2 | 66A | 25.70                          | 20.00 | 0.743                   | 0.881 | 22.70                      | 17.00 | 0.372                   | 0.442 | 0.814   |
|                   |                        | ANT1          | 13A | ANT3 | 66A | 25.70                          | 21.75 | 0.743                   | 0.942 | 22.70                      | 18.75 | 0.372                   | 0.472 | 0.845   |
|                   |                        | ANT1          | 13A | ANT4 | 66A | 25.70                          | 22.25 | 0.743                   | 0.899 | 22.70                      | 19.25 | 0.372                   | 0.451 | 0.823   |
|                   |                        | ANT2          | 13A | ANT1 | 66A | 24.50                          | 18.00 | 0.405                   | 0.946 | 21.50                      | 15.00 | 0.203                   | 0.474 | 0.677   |
|                   |                        | ANT2          | 13A | ANT3 | 66A | 24.50                          | 21.75 | 0.405                   | 0.942 | 21.50                      | 18.75 | 0.203                   | 0.472 | 0.675   |
| CA_14A-66A        | Head                   | ANT2          | 13A | ANT4 | 66A | 24.50                          | 22.25 | 0.405                   | 0.899 | 21.50                      | 19.25 | 0.203                   | 0.451 | 0.654   |
|                   |                        | ANT1          | 14A | ANT2 | 30A | 25.70                          | 21.00 | 0.223                   | 0.844 | 22.70                      | 18.00 | 0.112                   | 0.423 | 0.535   |
|                   |                        | ANT1          | 14A | ANT3 | 30A | 25.70                          | 24.50 | 0.223                   | 0.475 | 22.70                      | 21.50 | 0.112                   | 0.238 | 0.350   |
|                   |                        | ANT1          | 14A | ANT4 | 30A | 25.70                          | 17.50 | 0.223                   | 0.844 | 22.70                      | 14.50 | 0.112                   | 0.423 | 0.535   |
|                   |                        | ANT2          | 14A | ANT1 | 30A | 24.50                          | 25.70 | 0.397                   | 0.510 | 21.50                      | 22.70 | 0.199                   | 0.256 | 0.455   |
|                   | Body                   | ANT2          | 14A | ANT3 | 30A | 24.50                          | 24.50 | 0.397                   | 0.475 | 21.50                      | 21.50 | 0.199                   | 0.238 | 0.437   |
|                   |                        | ANT2          | 14A | ANT4 | 30A | 24.50                          | 17.50 | 0.397                   | 0.844 | 21.50                      | 14.50 | 0.199                   | 0.423 | 0.622   |
|                   |                        | ANT1          | 14A | ANT2 | 30A | 25.70                          | 20.50 | 0.847                   | 0.866 | 22.70                      | 17.50 | 0.425                   | 0.434 | 0.859   |
|                   |                        | ANT1          | 14A | ANT3 | 30A | 25.70                          | 20.75 | 0.847                   | 0.991 | 22.70                      | 17.75 | 0.425                   | 0.497 | 0.921   |
|                   |                        | ANT1          | 14A | ANT4 | 30A | 25.70                          | 19.00 | 0.847                   | 0.895 | 22.70                      | 16.00 | 0.425                   | 0.449 | 0.873   |
| CA_14A-66A        | Head                   | ANT2          | 14A | ANT1 | 30A | 24.50                          | 22.00 | 0.376                   | 0.981 | 21.50                      | 19.00 | 0.188                   | 0.492 | 0.680   |
|                   |                        | ANT2          | 14A | ANT3 | 30A | 24.50                          | 20.75 | 0.376                   | 0.991 | 21.50                      | 17.75 | 0.188                   | 0.497 | 0.685   |
|                   |                        | ANT2          | 14A | ANT4 | 30A | 24.50                          | 19.00 | 0.376                   | 0.895 | 21.50                      | 16.00 | 0.188                   | 0.449 | 0.637   |
|                   |                        | ANT1          | 14A | ANT2 | 30A | 25.70                          | 21.00 | 0.223                   | 0.844 | 22.70                      | 18.00 | 0.112                   | 0.423 | 0.535   |
|                   |                        | ANT1          | 14A | ANT3 | 30A | 25.70                          | 24.50 | 0.223                   | 0.475 | 22.70                      | 21.50 | 0.112                   | 0.238 | 0.350   |
|                   | Body                   | ANT1          | 14A | ANT4 | 30A | 25.70                          | 17.50 | 0.223                   | 0.844 | 22.70                      | 14.50 | 0.112                   | 0.423 | 0.535   |
|                   |                        | ANT2          | 14A | ANT1 | 30A | 24.50                          | 25.70 | 0.397                   | 0.510 | 21.50                      | 22.70 | 0.199                   | 0.256 | 0.455   |
|                   |                        | ANT2          | 14A | ANT3 | 30A | 24.50                          | 24.50 | 0.397                   | 0.475 | 21.50                      | 21.50 | 0.199                   | 0.238 | 0.437   |
|                   |                        | ANT2          | 14A | ANT4 | 30A | 24.50                          | 17.50 | 0.397                   | 0.844 | 21.50                      | 14.50 | 0.199                   | 0.423 | 0.622   |
|                   |                        | ANT1          | 14A | ANT2 | 30A | 25.70                          | 20.50 | 0.847                   | 0.866 | 22.70                      | 17.50 | 0.425                   | 0.434 | 0.859   |

| UL CA<br>inter-bands | RF<br>Exposure<br>Conditions | Antenna Ports |     |      |     | Standalone worst-case position |       |                            |       | UL CA                         |       |                            |       |              |
|----------------------|------------------------------|---------------|-----|------|-----|--------------------------------|-------|----------------------------|-------|-------------------------------|-------|----------------------------|-------|--------------|
|                      |                              |               |     |      |     | Tune-up Limit<br>(dBm)         |       | Reported 1-g SAR<br>(W/kg) |       | Tune-up Limit (-3dB)<br>(dBm) |       | Reported 1-g SAR<br>(W/kg) |       |              |
|                      |                              | CC1           |     | CC2  |     | CC1                            | CC2   | CC1                        | CC2   | CC1                           | CC2   | CC1                        | CC2   | CC1+CC2      |
| CA_14A-66A           | Head                         | ANT1          | 14A | ANT2 | 66A | 25.70                          | 22.00 | 0.223                      | 0.892 | 22.70                         | 19.00 | 0.112                      | 0.447 | <b>0.559</b> |
|                      |                              | ANT1          | 14A | ANT3 | 66A | 25.70                          | 25.00 | 0.223                      | 0.317 | 22.70                         | 22.00 | 0.112                      | 0.159 | <b>0.271</b> |
|                      |                              | ANT1          | 14A | ANT4 | 66A | 25.70                          | 21.00 | 0.223                      | 0.872 | 22.70                         | 18.00 | 0.112                      | 0.437 | <b>0.549</b> |
|                      |                              | ANT2          | 14A | ANT1 | 66A | 24.50                          | 25.70 | 0.397                      | 0.230 | 21.50                         | 22.70 | 0.199                      | 0.115 | <b>0.314</b> |
|                      |                              | ANT2          | 14A | ANT3 | 66A | 24.50                          | 25.00 | 0.397                      | 0.317 | 21.50                         | 22.00 | 0.199                      | 0.159 | <b>0.358</b> |
|                      | Body                         | ANT2          | 14A | ANT4 | 66A | 24.50                          | 21.00 | 0.397                      | 0.872 | 21.50                         | 18.00 | 0.199                      | 0.437 | <b>0.636</b> |
|                      |                              | ANT1          | 14A | ANT2 | 66A | 25.70                          | 20.00 | 0.847                      | 0.881 | 22.70                         | 17.00 | 0.425                      | 0.442 | <b>0.866</b> |
|                      |                              | ANT1          | 14A | ANT3 | 66A | 25.70                          | 21.75 | 0.847                      | 0.942 | 22.70                         | 18.75 | 0.425                      | 0.472 | <b>0.897</b> |
|                      |                              | ANT1          | 14A | ANT4 | 66A | 25.70                          | 22.25 | 0.847                      | 0.899 | 22.70                         | 19.25 | 0.425                      | 0.451 | <b>0.875</b> |
|                      |                              | ANT2          | 14A | ANT1 | 66A | 24.50                          | 18.00 | 0.376                      | 0.946 | 21.50                         | 15.00 | 0.188                      | 0.474 | <b>0.663</b> |
|                      |                              | ANT2          | 14A | ANT3 | 66A | 24.50                          | 21.75 | 0.376                      | 0.942 | 21.50                         | 18.75 | 0.188                      | 0.472 | <b>0.661</b> |
|                      |                              | ANT2          | 14A | ANT4 | 66A | 24.50                          | 22.25 | 0.376                      | 0.899 | 21.50                         | 19.25 | 0.188                      | 0.451 | <b>0.639</b> |

**Conclusion:**

The single uplink 1-g SAR values for each band are both less than 0.8 W/kg and the algebraic summation of the 1-g SAR values are less than 1.45 W/kg. Therefore, no additional measurements are required.

**9.6. LTE Down-Link Carrier Aggregation**

This device supports LTE downlink carrier aggregation (CA). The tables appendix G is show the supported frequency bands of the device for DL Inter-band and DL Intra-band combinations.

## 9.7. Wi-Fi 2.4GHz (DTS Band)

### Wi-Fi 2.4 GHz ( $P_{\text{cell\_OFF}}$ and $P_{\text{cell\_ON}}$ )

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

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  $<1.6\text{W/kg}$  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.

For 2.4 GHz band, there are two use cases:

- $P_{\text{Cell\_ON}}$ : This will be used when both WWAN and Wi-Fi radios are ON.
- $P_{\text{Cell\_OFF}}$ : This will be used when only Wi-Fi radio is ON

| Mode                                      | Channel | Frequency | Pcell OFF |        |        |        | Pcell ON |        |        |        |
|-------------------------------------------|---------|-----------|-----------|--------|--------|--------|----------|--------|--------|--------|
|                                           |         |           | ANT3      |        | ANT4   |        | ANT3     |        | ANT4   |        |
|                                           |         |           | Mode A    | Mode B | Mode A | Mode B | Mode A   | Mode B | Mode A | Mode B |
| 802.11b<br>DSSS<br>(SISO)                 | 1       | 2412      | 20.50     | 20.50  | 17.00  | 18.75  | 20.50    | 17.75  | 13.50  | 15.25  |
|                                           | 2       | 2417      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                           | 3       | 2422      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                           | 4       | 2427      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                           | 5       | 2432      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                           | 6       | 2437      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                           | 7       | 2442      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                           | 8       | 2447      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                           | 9       | 2452      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                           | 10      | 2457      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                           | 11      | 2462      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                           | 12      | 2467      | 20.50     | 20.50  | 17.00  | 18.75  | 20.50    | 17.75  | 13.50  | 15.25  |
|                                           | 13      | 2472      | 18.00     | 18.00  | 17.00  | 18.00  | 18.00    | 17.75  | 13.50  | 15.25  |
| Mode                                      | Channel | Frequency | Pcell OFF |        |        |        | Pcell ON |        |        |        |
|                                           |         |           | ANT3      |        | ANT4   |        | ANT3     |        | ANT4   |        |
|                                           |         |           | Mode A    | Mode B | Mode A | Mode B | Mode A   | Mode B | Mode A | Mode B |
| 802.11g/n/ac<br>OFDM<br>(SISO)            | 1       | 2412      | 17.50     | 17.50  | 17.00  | 17.50  | 17.50    | 17.50  | 13.50  | 15.25  |
|                                           | 2       | 2417      | 19.50     | 19.50  | 17.00  | 18.75  | 19.50    | 17.75  | 13.50  | 15.25  |
|                                           | 3       | 2422      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                           | 4       | 2427      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                           | 5       | 2432      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                           | 6       | 2437      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                           | 7       | 2442      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                           | 8       | 2447      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                           | 9       | 2452      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                           | 10      | 2457      | 19.50     | 19.50  | 17.00  | 18.75  | 19.50    | 17.75  | 13.50  | 15.25  |
|                                           | 11      | 2462      | 17.50     | 17.50  | 17.00  | 17.50  | 17.50    | 17.50  | 13.50  | 15.25  |
|                                           | 12      | 2467      | 15.50     | 15.50  | 15.50  | 15.50  | 15.50    | 15.50  | 13.50  | 15.25  |
|                                           | 13      | 2472      | 7.50      | 7.50   | 7.50   | 7.50   | 7.50     | 7.50   | 7.50   | 7.50   |
| Mode                                      | Channel | Frequency | Pcell OFF |        |        |        | Pcell ON |        |        |        |
|                                           |         |           | ANT3      |        | ANT4   |        | ANT3     |        | ANT4   |        |
|                                           |         |           | Mode A    | Mode B | Mode A | Mode B | Mode A   | Mode B | Mode A | Mode B |
| 802.11ax<br>HE20<br>SU<br>OFDMA<br>(SISO) | 1       | 2412      | 16.00     | 16.00  | 16.00  | 16.00  | 16.00    | 16.00  | 13.50  | 15.25  |
|                                           | 2       | 2417      | 18.00     | 18.00  | 17.00  | 18.00  | 18.00    | 17.75  | 13.50  | 15.25  |
|                                           | 3       | 2422      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                           | 4       | 2427      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                           | 5       | 2432      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                           | 6       | 2437      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                           | 7       | 2442      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                           | 8       | 2447      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                           | 9       | 2452      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                           | 10      | 2457      | 18.00     | 18.00  | 17.00  | 18.00  | 18.00    | 17.75  | 13.50  | 15.25  |
|                                           | 11      | 2462      | 16.00     | 16.00  | 16.00  | 16.00  | 16.00    | 16.00  | 13.50  | 15.25  |
|                                           | 12      | 2467      | 14.00     | 14.00  | 14.00  | 14.00  | 14.00    | 14.00  | 13.50  | 14.00  |
|                                           | 13      | 2472      | 6.50      | 6.50   | 6.50   | 6.50   | 6.50     | 6.50   | 6.50   | 6.50   |

| Mode                                             | Channel | Frequency | Pcell OFF |        |        |        | Pcell ON |        |        |        |
|--------------------------------------------------|---------|-----------|-----------|--------|--------|--------|----------|--------|--------|--------|
|                                                  |         |           | ANT3      |        | ANT4   |        | ANT3     |        | ANT4   |        |
|                                                  |         |           | Mode A    | Mode B | Mode A | Mode B | Mode A   | Mode B | Mode A | Mode B |
| 802.11ax<br>HE20<br>RU106<br>OFDMA<br>(SISO)     | 1       | 2412      | 16.00     | 16.00  | 16.00  | 16.00  | 16.00    | 16.00  | 13.50  | 15.25  |
|                                                  | 2       | 2417      | 18.00     | 18.00  | 17.00  | 18.00  | 18.00    | 17.75  | 13.50  | 15.25  |
|                                                  | 3       | 2422      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                                  | 4       | 2427      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                                  | 5       | 2432      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                                  | 6       | 2437      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                                  | 7       | 2442      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                                  | 8       | 2447      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                                  | 9       | 2452      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                                  | 10      | 2457      | 18.00     | 18.00  | 17.00  | 18.00  | 18.00    | 17.75  | 13.50  | 15.25  |
|                                                  | 11      | 2462      | 16.00     | 16.00  | 16.00  | 16.00  | 16.00    | 16.00  | 13.50  | 15.25  |
|                                                  | 12      | 2467      | 14.00     | 14.00  | 14.00  | 14.00  | 14.00    | 14.00  | 13.50  | 14.00  |
|                                                  | 13      | 2472      | 2.50      | 2.50   | 2.50   | 2.50   | 2.50     | 2.50   | 2.50   | 2.50   |
| Mode                                             | Channel | Frequency | Pcell OFF |        |        |        | Pcell ON |        |        |        |
|                                                  |         |           | ANT3      |        | ANT4   |        | ANT3     |        | ANT4   |        |
|                                                  |         |           | Mode A    | Mode B | Mode A | Mode B | Mode A   | Mode B | Mode A | Mode B |
| 802.11ax<br>HE20<br>RU52/RU26<br>OFDMA<br>(SISO) | 1       | 2412      | 16.00     | 16.00  | 16.00  | 16.00  | 16.00    | 16.00  | 13.50  | 15.25  |
|                                                  | 2       | 2417      | 18.00     | 18.00  | 17.00  | 18.00  | 18.00    | 17.75  | 13.50  | 15.25  |
|                                                  | 3       | 2422      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                                  | 4       | 2427      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                                  | 5       | 2432      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                                  | 6       | 2437      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                                  | 7       | 2442      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                                  | 8       | 2447      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                                  | 9       | 2452      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                                  | 10      | 2457      | 18.00     | 18.00  | 17.00  | 18.00  | 18.00    | 17.75  | 13.50  | 15.25  |
|                                                  | 11      | 2462      | 16.00     | 16.00  | 16.00  | 16.00  | 16.00    | 16.00  | 13.50  | 15.25  |
|                                                  | 12      | 2467      | 14.00     | 14.00  | 14.00  | 14.00  | 14.00    | 14.00  | 13.50  | 14.00  |
|                                                  | 13      | 2472      | 0.00      | 0.00   | 0.00   | 0.00   | 0.00     | 0.00   | 0.00   | 0.00   |
| Mode                                             | Channel | Frequency | Pcell OFF |        |        |        | Pcell ON |        |        |        |
|                                                  |         |           | ANT3      |        | ANT4   |        | ANT3     |        | ANT4   |        |
|                                                  |         |           | Mode A    | Mode B | Mode A | Mode B | Mode A   | Mode B | Mode A | Mode B |
| 802.11n/ac<br>OFDM<br>(MIMO)                     | 1       | 2412      | 16.50     | 16.50  | 16.50  | 16.50  | 16.50    | 16.50  | 13.50  | 15.25  |
|                                                  | 2       | 2417      | 18.50     | 18.50  | 17.00  | 18.50  | 18.50    | 17.75  | 13.50  | 15.25  |
|                                                  | 3       | 2422      | 20.00     | 20.00  | 17.00  | 18.75  | 20.00    | 17.75  | 13.50  | 15.25  |
|                                                  | 4       | 2427      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                                  | 5       | 2432      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                                  | 6       | 2437      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                                  | 7       | 2442      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                                  | 8       | 2447      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                                  | 9       | 2452      | 19.50     | 19.50  | 17.00  | 18.75  | 19.50    | 17.75  | 13.50  | 15.25  |
|                                                  | 10      | 2457      | 18.50     | 18.50  | 17.00  | 18.50  | 18.50    | 17.75  | 13.50  | 15.25  |
|                                                  | 11      | 2462      | 16.50     | 16.50  | 16.50  | 16.50  | 16.50    | 16.50  | 13.50  | 15.25  |
|                                                  | 12      | 2467      | 14.00     | 14.00  | 14.00  | 14.00  | 14.00    | 14.00  | 13.50  | 14.00  |
|                                                  | 13      | 2472      | 5.50      | 5.50   | 5.50   | 5.50   | 5.50     | 5.50   | 5.50   | 5.50   |

| Mode                                         | Channel | Frequency | Pcell OFF |        |        |        | Pcell ON |        |        |        |
|----------------------------------------------|---------|-----------|-----------|--------|--------|--------|----------|--------|--------|--------|
|                                              |         |           | ANT3      |        | ANT4   |        | ANT3     |        | ANT4   |        |
|                                              |         |           | Mode A    | Mode B | Mode A | Mode B | Mode A   | Mode B | Mode A | Mode B |
| 802.11ax<br>HE20<br>SU<br>OFDMA<br>(MIMO)    | 1       | 2412      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 15.00  | 13.50  | 15.00  |
|                                              | 2       | 2417      | 17.00     | 17.00  | 17.00  | 17.00  | 17.00    | 17.00  | 13.50  | 15.25  |
|                                              | 3       | 2422      | 19.00     | 19.00  | 17.00  | 18.75  | 19.00    | 17.75  | 13.50  | 15.25  |
|                                              | 4       | 2427      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                              | 5       | 2432      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                              | 6       | 2437      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                              | 7       | 2442      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                              | 8       | 2447      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                              | 9       | 2452      | 18.50     | 18.50  | 17.00  | 18.50  | 18.50    | 17.75  | 13.50  | 15.25  |
|                                              | 10      | 2457      | 17.00     | 17.00  | 17.00  | 17.00  | 17.00    | 17.00  | 13.50  | 15.25  |
|                                              | 11      | 2462      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 15.00  | 13.50  | 15.00  |
|                                              | 12      | 2467      | 13.00     | 13.00  | 13.00  | 13.00  | 13.00    | 13.00  | 13.00  | 13.00  |
|                                              | 13      | 2472      | 4.50      | 4.50   | 4.50   | 4.50   | 4.50     | 4.50   | 4.50   | 4.50   |
| Mode                                         | Channel | Frequency | Pcell OFF |        |        |        | Pcell ON |        |        |        |
|                                              |         |           | ANT3      |        | ANT4   |        | ANT3     |        | ANT4   |        |
|                                              |         |           | Mode A    | Mode B | Mode A | Mode B | Mode A   | Mode B | Mode A | Mode B |
| 802.11ax<br>HE20<br>RU106<br>OFDMA<br>(MIMO) | 1       | 2412      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 15.00  | 13.50  | 15.00  |
|                                              | 2       | 2417      | 17.00     | 17.00  | 17.00  | 17.00  | 17.00    | 17.00  | 13.50  | 15.25  |
|                                              | 3       | 2422      | 19.00     | 19.00  | 17.00  | 18.75  | 19.00    | 17.75  | 13.50  | 15.25  |
|                                              | 4       | 2427      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                              | 5       | 2432      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                              | 6       | 2437      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                              | 7       | 2442      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                              | 8       | 2447      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                              | 9       | 2452      | 18.50     | 18.50  | 17.00  | 18.50  | 18.50    | 17.75  | 13.50  | 15.25  |
|                                              | 10      | 2457      | 17.00     | 17.00  | 17.00  | 17.00  | 17.00    | 17.00  | 13.50  | 15.25  |
|                                              | 11      | 2462      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 15.00  | 13.50  | 15.00  |
|                                              | 12      | 2467      | 13.00     | 13.00  | 13.00  | 13.00  | 13.00    | 13.00  | 13.00  | 13.00  |
|                                              | 13      | 2472      | 2.50      | 2.50   | 2.50   | 2.50   | 2.50     | 2.50   | 2.50   | 2.50   |
| Mode                                         | Channel | Frequency | Pcell OFF |        |        |        | Pcell ON |        |        |        |
|                                              |         |           | ANT3      |        | ANT4   |        | ANT3     |        | ANT4   |        |
|                                              |         |           | Mode A    | Mode B | Mode A | Mode B | Mode A   | Mode B | Mode A | Mode B |
| 802.11ax<br>HE20<br>RU52<br>OFDMA<br>(MIMO)  | 1       | 2412      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 15.00  | 13.50  | 15.00  |
|                                              | 2       | 2417      | 17.00     | 17.00  | 17.00  | 17.00  | 17.00    | 17.00  | 13.50  | 15.25  |
|                                              | 3       | 2422      | 19.00     | 19.00  | 17.00  | 18.75  | 19.00    | 17.75  | 13.50  | 15.25  |
|                                              | 4       | 2427      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                              | 5       | 2432      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                              | 6       | 2437      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                              | 7       | 2442      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                              | 8       | 2447      | 21.50     | 21.50  | 17.00  | 18.75  | 21.50    | 17.75  | 13.50  | 15.25  |
|                                              | 9       | 2452      | 18.50     | 18.50  | 17.00  | 18.50  | 18.50    | 17.75  | 13.50  | 15.25  |
|                                              | 10      | 2457      | 17.00     | 17.00  | 17.00  | 17.00  | 17.00    | 17.00  | 13.50  | 15.25  |
|                                              | 11      | 2462      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 15.00  | 13.50  | 15.00  |
|                                              | 12      | 2467      | 13.00     | 13.00  | 13.00  | 13.00  | 13.00    | 13.00  | 13.00  | 13.00  |
|                                              | 13      | 2472      | 0.00      | 0.00   | 0.00   | 0.00   | 0.00     | 0.00   | 0.00   | 0.00   |

| Mode                                        | Channel | Frequency | Pcell OFF |        |        |        | Pcell ON |        |        |        |
|---------------------------------------------|---------|-----------|-----------|--------|--------|--------|----------|--------|--------|--------|
|                                             |         |           | ANT3      |        | ANT4   |        | ANT3     |        | ANT4   |        |
|                                             |         |           | Mode A    | Mode B | Mode A | Mode B | Mode A   | Mode B | Mode A | Mode B |
| 802.11ax<br>HE20<br>RU26<br>OFDMA<br>(MIMO) | 1       | 2412      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 15.00  | 13.50  | 15.00  |
|                                             | 2       | 2417      | 17.00     | 17.00  | 17.00  | 17.00  | 17.00    | 17.00  | 13.50  | 15.25  |
|                                             | 3       | 2422      | 19.00     | 19.00  | 17.00  | 18.75  | 19.00    | 17.75  | 13.50  | 15.25  |
|                                             | 4       | 2427      | 20.00     | 20.00  | 17.00  | 18.75  | 20.00    | 17.75  | 13.50  | 15.25  |
|                                             | 5       | 2432      | 20.00     | 20.00  | 17.00  | 18.75  | 20.00    | 17.75  | 13.50  | 15.25  |
|                                             | 6       | 2437      | 20.00     | 20.00  | 17.00  | 18.75  | 20.00    | 17.75  | 13.50  | 15.25  |
|                                             | 7       | 2442      | 20.00     | 20.00  | 17.00  | 18.75  | 20.00    | 17.75  | 13.50  | 15.25  |
|                                             | 8       | 2447      | 20.00     | 20.00  | 17.00  | 18.75  | 20.00    | 17.75  | 13.50  | 15.25  |
|                                             | 9       | 2452      | 18.50     | 18.50  | 17.00  | 18.50  | 18.50    | 17.75  | 13.50  | 15.25  |
|                                             | 10      | 2457      | 17.00     | 17.00  | 17.00  | 17.00  | 17.00    | 17.00  | 13.50  | 15.25  |
|                                             | 11      | 2462      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 15.00  | 13.50  | 15.00  |
|                                             | 12      | 2467      | 13.00     | 13.00  | 13.00  | 13.00  | 13.00    | 13.00  | 13.00  | 13.00  |
|                                             | 13      | 2472      | 0.00      | 0.00   | 0.00   | 0.00   | 0.00     | 0.00   | 0.00   | 0.00   |

**Wi-Fi 2.4GHz Measured Results**

The maximum output power specified for production units are determined for all applicable 802.11 transmission modes in each standalone and aggregated frequency band. Maximum output power is measured for the highest maximum output power configuration(s) in each frequency band according to the default power measurement procedures.

SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11g/n/ac/ax mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band. Additional output power measurements were not deemed necessary.

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

| Power Mode | Antenna | Mode         | Data Rate | Ch # | Freq. (MHz) | Power Mode A (dBm) |         |                   | Power Mode B (dBm) |         |                   |
|------------|---------|--------------|-----------|------|-------------|--------------------|---------|-------------------|--------------------|---------|-------------------|
|            |         |              |           |      |             | Meas Pwr           | Tune-up | SAR Test (Yes/No) | Meas Pwr           | Tune-up | SAR Test (Yes/No) |
| Pcell OFF  | ANT3    | DSSS 802.11b | 1 Mbps    | 1    | 2412        | 20.50              | 20.50   | Yes               | 20.50              | 20.50   | Yes               |
|            |         |              |           | 2    | 2417        | 21.50              | 21.50   |                   | 21.50              | 21.50   |                   |
|            |         |              |           | 6    | 2437        | 21.50              | 21.50   |                   | 21.50              | 21.50   |                   |
|            |         |              |           | 11   | 2462        | 21.50              | 21.50   |                   | 21.50              | 21.50   |                   |
|            |         |              |           | 12   | 2467        | 20.50              | 20.50   |                   | 20.50              | 20.50   |                   |
|            | ANT4    | DSSS 802.11b | 1 Mbps    | 13   | 2472        | 18.00              | 18.00   | Yes               | 18.00              | 18.00   | Yes               |
|            |         |              |           | 1    | 2412        | 17.00              | 17.00   |                   | 18.75              | 18.75   |                   |
|            |         |              |           | 6    | 2437        | 17.00              | 17.00   |                   | 18.75              | 18.75   |                   |
|            |         |              |           | 11   | 2462        | 17.00              | 17.00   |                   | 18.75              | 18.75   |                   |
|            |         |              |           | 12   | 2467        | 17.00              | 17.00   |                   | 18.75              | 18.75   |                   |
|            |         |              |           | 13   | 2472        | 17.00              | 17.00   |                   | 18.00              | 18.00   |                   |
|            |         |              |           |      |             |                    |         |                   |                    |         |                   |
| Power Mode | Antenna | Mode         | Data Rate | Ch # | Freq. (MHz) | Power Mode A (dBm) |         |                   | Power Mode B (dBm) |         |                   |
|            |         |              |           |      |             | Meas Pwr           | Tune-up | SAR Test (Yes/No) | Meas Pwr           | Tune-up | SAR Test (Yes/No) |
| Pcell ON   | ANT3    | DSSS 802.11b | 1 Mbps    | 1    | 2412        | 20.50              | 20.50   | Yes               | 17.75              | 17.75   | Yes               |
|            |         |              |           | 2    | 2417        | 21.50              | 21.50   |                   | 17.75              | 17.75   |                   |
|            |         |              |           | 6    | 2437        | 21.50              | 21.50   |                   | 17.75              | 17.75   |                   |
|            |         |              |           | 11   | 2462        | 21.50              | 21.50   |                   | 17.75              | 17.75   |                   |
|            |         |              |           | 12   | 2467        | 20.50              | 20.50   |                   | 17.75              | 17.75   |                   |
|            | ANT4    | DSSS 802.11b | 1 Mbps    | 13   | 2472        | 18.00              | 18.00   | Yes               | 17.75              | 17.75   | Yes               |
|            |         |              |           | 1    | 2412        | 13.50              | 13.50   |                   | 15.25              | 15.25   |                   |
|            |         |              |           | 6    | 2437        | 13.50              | 13.50   |                   | 15.25              | 15.25   |                   |
|            |         |              |           | 11   | 2462        | 13.50              | 13.50   |                   | 15.25              | 15.25   |                   |
|            |         |              |           | 12   | 2467        | 13.50              | 13.50   |                   | 15.25              | 15.25   |                   |
|            |         |              |           | 13   | 2472        | 13.50              | 13.50   |                   | 15.25              | 15.25   |                   |
|            |         |              |           |      |             |                    |         |                   |                    |         |                   |

**Note(s):**

SAR is not required for channel 12 and 13 because the tune-up limit and the measured output power for these two channels are not greater than those for the default test channels. Refer to KDB 248227 D01 section 3.1

## 9.8. Wi-Fi 5GHz (U-NII Bands)

### Wi-Fi 5 GHz ( $P_{\text{cell\_OFF}}$ and $P_{\text{cell\_ON}}$ )

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, g, n then ac) 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 publication 248227 D01, simultaneous SAR provisions in KDB Publication 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.

For 5GHz band, there are two use cases:

- $P_{\text{Cell\_ON}}$ : This will be used when both WWAN and Wi-Fi radios are ON.
- $P_{\text{Cell\_OFF}}$ : This will be used when only Wi-Fi radio is ON

| Mode                          | Bandwidth              | Channel | Frequency | Pcell OFF |        |        |        | Pcell ON |        |        |        |
|-------------------------------|------------------------|---------|-----------|-----------|--------|--------|--------|----------|--------|--------|--------|
|                               |                        |         |           | ANT5      |        | ANT6   |        | ANT5     |        | ANT6   |        |
|                               |                        |         |           | Mode A    | Mode B | Mode A | Mode B | Mode A   | Mode B | Mode A | Mode B |
| U-NII-1<br>5.2 GHz<br>(SISO)  | 802.11a/n/ac<br>20 MHz | 36      | 5180      | 19.00     | 19.00  | 19.00  | 19.00  | 19.00    | 17.00  | 19.00  | 17.75  |
|                               |                        | 40      | 5200      | 21.00     | 21.00  | 21.00  | 21.00  | 21.00    | 17.00  | 20.75  | 17.75  |
|                               |                        | 44      | 5220      | 21.00     | 21.00  | 21.00  | 21.00  | 21.00    | 17.00  | 20.75  | 17.75  |
|                               |                        | 48      | 5240      | 21.00     | 21.00  | 21.00  | 21.00  | 21.00    | 17.00  | 20.75  | 17.75  |
|                               | 802.11n/ac<br>40 MHz   | 38      | 5190      | 17.50     | 17.50  | 17.50  | 17.50  | 17.50    | 17.00  | 17.50  | 17.50  |
|                               |                        | 46      | 5230      | 21.50     | 21.50  | 21.50  | 21.50  | 21.50    | 17.00  | 20.75  | 17.75  |
|                               | 802.11ac<br>80 MHz     | 42      | 5210      | 17.50     | 17.50  | 17.50  | 17.50  | 17.50    | 17.00  | 17.50  | 17.50  |
| U-NII-2A<br>5.3 GHz<br>(SISO) | 802.11a/n/ac<br>20 MHz | 52      | 5260      | 21.00     | 19.50  | 20.75  | 20.00  | 21.00    | 14.25  | 16.50  | 15.75  |
|                               |                        | 56      | 5280      | 21.00     | 19.50  | 20.75  | 20.00  | 21.00    | 14.25  | 16.50  | 15.75  |
|                               |                        | 60      | 5300      | 21.00     | 19.50  | 20.75  | 20.00  | 21.00    | 14.25  | 16.50  | 15.75  |
|                               |                        | 64      | 5320      | 19.00     | 19.00  | 19.00  | 19.00  | 19.00    | 14.25  | 16.50  | 15.75  |
|                               | 802.11n/ac<br>40 MHz   | 54      | 5270      | 21.50     | 19.50  | 20.75  | 20.00  | 21.50    | 14.25  | 16.50  | 15.75  |
|                               |                        | 62      | 5310      | 17.50     | 17.50  | 17.50  | 17.50  | 17.50    | 14.25  | 16.50  | 15.75  |
|                               | 802.11ac<br>80 MHz     | 58      | 5290      | 17.50     | 17.50  | 17.50  | 17.50  | 17.50    | 14.25  | 16.50  | 15.75  |
| Mode                          | Bandwidth              | Channel | Frequency | Pcell OFF |        |        |        | Pcell ON |        |        |        |
|                               |                        |         |           | ANT5      |        | ANT6   |        | ANT5     |        | ANT6   |        |
|                               |                        |         |           | Mode A    | Mode B | Mode A | Mode B | Mode A   | Mode B | Mode A | Mode B |
| U-NII-2C<br>5.5 GHz<br>(SISO) | 802.11a/n/ac<br>20 MHz | 100     | 5500      | 19.00     | 19.00  | 19.00  | 18.75  | 19.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 104     | 5520      | 21.00     | 20.00  | 19.25  | 18.75  | 21.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 108     | 5540      | 21.00     | 20.00  | 19.25  | 18.75  | 21.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 112     | 5560      | 21.00     | 20.00  | 19.25  | 18.75  | 21.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 116     | 5580      | 21.00     | 20.00  | 20.00  | 18.75  | 21.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 120     | 5600      | 21.00     | 20.00  | 20.00  | 18.75  | 21.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 124     | 5620      | 21.00     | 20.00  | 20.00  | 18.75  | 21.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 128     | 5640      | 21.00     | 20.00  | 20.00  | 18.75  | 21.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 132     | 5660      | 21.00     | 20.00  | 21.00  | 18.75  | 21.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 136     | 5680      | 21.00     | 20.00  | 21.00  | 18.75  | 21.00    | 14.75  | 17.00  | 14.50  |
|                               | 802.11n/ac<br>40 MHz   | 140     | 5700      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 144     | 5720      | 21.00     | 20.00  | 21.00  | 18.75  | 21.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 102     | 5510      | 17.50     | 17.50  | 17.50  | 17.50  | 17.50    | 14.75  | 17.00  | 14.50  |
|                               |                        | 110     | 5550      | 21.50     | 20.00  | 19.25  | 18.75  | 21.50    | 14.75  | 17.00  | 14.50  |
|                               |                        | 118     | 5590      | 21.50     | 20.00  | 20.00  | 18.75  | 21.50    | 14.75  | 17.00  | 14.50  |
|                               |                        | 126     | 5630      | 21.50     | 20.00  | 20.00  | 18.75  | 21.50    | 14.75  | 17.00  | 14.50  |
|                               | 802.11ac<br>80 MHz     | 134     | 5670      | 20.50     | 20.00  | 20.50  | 18.75  | 20.50    | 14.75  | 17.00  | 14.50  |
|                               |                        | 142     | 5710      | 21.50     | 20.00  | 21.50  | 18.75  | 21.50    | 14.75  | 17.00  | 14.50  |
| 106                           |                        | 5530    | 16.50     | 16.50     | 16.50  | 16.50  | 16.50  | 14.75    | 16.50  | 14.50  |        |
| 122                           |                        | 5610    | 21.50     | 20.00     | 20.00  | 18.75  | 21.50  | 14.75    | 17.00  | 14.50  |        |
|                               |                        | 138     | 5690      | 21.50     | 20.00  | 21.50  | 18.75  | 21.50    | 14.75  | 17.00  | 14.50  |
| Mode                          | Bandwidth              | Channel | Frequency | Pcell OFF |        |        |        | Pcell ON |        |        |        |
|                               |                        |         |           | ANT5      |        | ANT6   |        | ANT5     |        | ANT6   |        |
|                               |                        |         |           | Mode A    | Mode B | Mode A | Mode B | Mode A   | Mode B | Mode A | Mode B |
| U-NII-3<br>5.8 GHz<br>(SISO)  | 802.11a/n/ac<br>20 MHz | 149     | 5745      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                        | 153     | 5765      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                        | 157     | 5785      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                        | 161     | 5805      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               | 802.11n/ac<br>40 MHz   | 165     | 5825      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                        | 151     | 5755      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               | 802.11ac<br>80 MHz     | 159     | 5795      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                        | 155     | 5775      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |

| Mode                          | Bandwidth           | Channel | Frequency | Pcell OFF |        |        |        | Pcell ON |        |        |        |
|-------------------------------|---------------------|---------|-----------|-----------|--------|--------|--------|----------|--------|--------|--------|
|                               |                     |         |           | ANT5      |        | ANT6   |        | ANT5     |        | ANT6   |        |
|                               |                     |         |           | Mode A    | Mode B | Mode A | Mode B | Mode A   | Mode B | Mode A | Mode B |
| U-NII-1<br>5.2 GHz<br>(SISO)  | 802.11ax<br>HE20/SU | 36      | 5180      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 17.00  | 18.00  | 17.75  |
|                               |                     | 40      | 5200      | 21.00     | 21.00  | 21.00  | 21.00  | 21.00    | 17.00  | 20.75  | 17.75  |
|                               |                     | 44      | 5220      | 21.00     | 21.00  | 21.00  | 21.00  | 21.00    | 17.00  | 20.75  | 17.75  |
|                               |                     | 48      | 5240      | 21.00     | 21.00  | 21.00  | 21.00  | 21.00    | 17.00  | 20.75  | 17.75  |
|                               | 802.11ax<br>HE40/SU | 38      | 5190      | 16.00     | 16.00  | 16.00  | 16.00  | 16.00    | 16.00  | 16.00  | 16.00  |
|                               |                     | 46      | 5230      | 21.50     | 21.50  | 21.50  | 21.50  | 21.50    | 17.00  | 20.75  | 17.75  |
| U-NII-2A<br>5.3 GHz<br>(SISO) | 802.11ax<br>HE20/SU | 42      | 5210      | 16.00     | 16.00  | 16.00  | 16.00  | 16.00    | 16.00  | 16.00  | 16.00  |
|                               |                     | 52      | 5260      | 21.00     | 19.50  | 20.75  | 20.00  | 21.00    | 14.25  | 16.50  | 15.75  |
|                               |                     | 56      | 5280      | 21.00     | 19.50  | 20.75  | 20.00  | 21.00    | 14.25  | 16.50  | 15.75  |
|                               |                     | 60      | 5300      | 21.00     | 19.50  | 20.75  | 20.00  | 21.00    | 14.25  | 16.50  | 15.75  |
|                               | 802.11ax<br>HE40/SU | 64      | 5320      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.25  | 16.50  | 15.75  |
|                               |                     | 54      | 5270      | 21.50     | 19.50  | 20.75  | 20.00  | 21.50    | 14.25  | 16.50  | 15.75  |
| U-NII-2C<br>5.5 GHz<br>(SISO) | 802.11ax<br>HE20/SU | 62      | 5310      | 16.00     | 16.00  | 16.00  | 16.00  | 16.00    | 14.25  | 16.00  | 15.75  |
|                               |                     | 58      | 5290      | 16.00     | 16.00  | 16.00  | 16.00  | 16.00    | 14.25  | 16.00  | 15.75  |
|                               |                     | 100     | 5500      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.75  | 17.00  | 14.50  |
|                               |                     | 104     | 5520      | 21.00     | 20.00  | 19.25  | 18.75  | 21.00    | 14.75  | 17.00  | 14.50  |
|                               | 802.11ax<br>HE40/SU | 108     | 5540      | 21.00     | 20.00  | 19.25  | 18.75  | 21.00    | 14.75  | 17.00  | 14.50  |
|                               |                     | 112     | 5560      | 21.00     | 20.00  | 19.25  | 18.75  | 21.00    | 14.75  | 17.00  | 14.50  |
| 116                           |                     | 5580    | 21.00     | 20.00     | 20.00  | 18.75  | 21.00  | 14.75    | 17.00  | 14.50  |        |
| 120                           |                     | 5600    | 21.00     | 20.00     | 20.00  | 18.75  | 21.00  | 14.75    | 17.00  | 14.50  |        |
| 124                           |                     | 5620    | 21.00     | 20.00     | 20.00  | 18.75  | 21.00  | 14.75    | 17.00  | 14.50  |        |
| 128                           |                     | 5640    | 21.00     | 20.00     | 20.00  | 18.75  | 21.00  | 14.75    | 17.00  | 14.50  |        |
| 132                           |                     | 5660    | 21.00     | 20.00     | 21.00  | 18.75  | 21.00  | 14.75    | 17.00  | 14.50  |        |
| 136                           |                     | 5680    | 21.00     | 20.00     | 21.00  | 18.75  | 21.00  | 14.75    | 17.00  | 14.50  |        |
| 802.11ax<br>HE80/SU           | 140                 | 5700    | 16.50     | 16.50     | 16.50  | 16.50  | 16.50  | 14.75    | 16.50  | 14.50  |        |
|                               | 144                 | 5720    | 21.00     | 20.00     | 21.00  | 18.75  | 21.00  | 14.75    | 17.00  | 14.50  |        |
|                               | 102                 | 5510    | 16.00     | 16.00     | 16.00  | 16.00  | 16.00  | 14.75    | 16.00  | 14.50  |        |
|                               | 110                 | 5550    | 21.50     | 20.00     | 19.25  | 18.75  | 21.50  | 14.75    | 17.00  | 14.50  |        |
|                               | 118                 | 5590    | 21.50     | 20.00     | 20.00  | 18.75  | 21.50  | 14.75    | 17.00  | 14.50  |        |
|                               | 126                 | 5630    | 21.50     | 20.00     | 20.00  | 18.75  | 21.50  | 14.75    | 17.00  | 14.50  |        |
| U-NII-3<br>5.8 GHz<br>(SISO)  | 802.11ax<br>HE20/SU | 134     | 5670      | 19.00     | 19.00  | 19.00  | 18.75  | 19.00    | 14.75  | 17.00  | 14.50  |
|                               |                     | 142     | 5710      | 21.50     | 20.00  | 21.50  | 18.75  | 21.50    | 14.75  | 17.00  | 14.50  |
|                               |                     | 106     | 5530      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                     | 122     | 5610      | 21.50     | 20.00  | 20.00  | 18.75  | 21.50    | 14.75  | 17.00  | 14.50  |
|                               | 802.11ax<br>HE40/SU | 138     | 5690      | 21.50     | 20.00  | 21.50  | 18.75  | 21.50    | 14.75  | 17.00  | 14.50  |
|                               |                     | 149     | 5745      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
| U-NII-3<br>5.8 GHz<br>(SISO)  | 802.11ax<br>HE20/SU | 153     | 5765      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                     | 157     | 5785      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                     | 161     | 5805      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                     | 165     | 5825      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               | 802.11ax<br>HE40/SU | 151     | 5755      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                     | 159     | 5795      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
| U-NII-3<br>5.8 GHz<br>(SISO)  | 802.11ax<br>HE80/SU | 155     | 5775      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                     |         |           |           |        |        |        |          |        |        |        |

**Note(s):**

The powers in the table above are for the fully loaded channels. When operating on partially loaded channels the power levels for HE80 RU484 are the same or lower than the equivalent HE40 SU power for the mode (A or B, Pcell\_ON or Pcell\_OFF); the power levels for HE80 RU242 and for HE40 RU242 are the same or lower than the equivalent HE20 SU power; the power levels for all other RU allocations for all bandwidths (RU106, RU52 and RU26) are all the same or lower than HE20 SU power.

| Mode                          | Bandwidth              | Channel | Frequency | Pcell OFF |        |        |        | Pcell ON |        |        |        |
|-------------------------------|------------------------|---------|-----------|-----------|--------|--------|--------|----------|--------|--------|--------|
|                               |                        |         |           | ANT5      |        | ANT6   |        | ANT5     |        | ANT6   |        |
|                               |                        |         |           | Mode A    | Mode B | Mode A | Mode B | Mode A   | Mode B | Mode A | Mode B |
| U-NII-1<br>5.2 GHz<br>(SISO)  | 802.11ax<br>HE20/RU106 | 36      | 5180      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 17.00  | 18.00  | 17.75  |
|                               |                        | 40      | 5200      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 17.00  | 18.00  | 17.75  |
|                               |                        | 44      | 5220      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 17.00  | 18.00  | 17.75  |
|                               |                        | 48      | 5240      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 17.00  | 18.00  | 17.75  |
|                               | 802.11ax<br>HE40/RU106 | 38      | 5190      | 16.00     | 16.00  | 16.00  | 16.00  | 16.00    | 16.00  | 16.00  | 16.00  |
|                               |                        | 46      | 5230      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 17.00  | 18.00  | 17.75  |
| U-NII-2A<br>5.2 GHz<br>(SISO) | 802.11ax<br>HE20/RU106 | 52      | 5260      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.25  | 16.50  | 15.75  |
|                               |                        | 56      | 5280      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.25  | 16.50  | 15.75  |
|                               |                        | 60      | 5300      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.25  | 16.50  | 15.75  |
|                               |                        | 64      | 5320      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.25  | 16.50  | 15.75  |
|                               | 802.11ax<br>HE40/RU106 | 54      | 5270      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.25  | 16.50  | 15.75  |
|                               |                        | 62      | 5310      | 16.00     | 16.00  | 16.00  | 16.00  | 16.00    | 14.25  | 16.00  | 15.75  |
| U-NII-2C<br>5.3 GHz<br>(SISO) | 802.11ax<br>HE20/RU106 | 100     | 5500      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 104     | 5520      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 108     | 5540      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 112     | 5560      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 116     | 5580      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 120     | 5600      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 124     | 5620      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 128     | 5640      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 132     | 5660      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 136     | 5680      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.75  | 17.00  | 14.50  |
|                               | 802.11ax<br>HE40/RU106 | 140     | 5700      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 144     | 5720      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 102     | 5510      | 16.00     | 16.00  | 16.00  | 16.00  | 16.00    | 14.75  | 16.00  | 14.50  |
|                               |                        | 110     | 5550      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 118     | 5590      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 126     | 5630      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.75  | 17.00  | 14.50  |
|                               | 802.11ax<br>HE80/RU106 | 134     | 5670      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 142     | 5710      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.75  | 17.00  | 14.50  |
| U-NII-3<br>5.8 GHz<br>(SISO)  | 802.11ax<br>HE20/RU106 | 106     | 5530      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                        | 122     | 5610      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 138     | 5690      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 149     | 5745      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                        | 153     | 5765      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               | 802.11ax<br>HE40/RU106 | 157     | 5785      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                        | 161     | 5805      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                        | 165     | 5825      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               | 802.11ax<br>HE80/RU106 | 151     | 5755      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                        | 159     | 5795      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
| U-NII-3<br>5.8 GHz<br>(SISO)  | 802.11ax<br>HE20/RU106 | 155     | 5775      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                        | 149     | 5745      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                        | 153     | 5765      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                        | 157     | 5785      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                        | 161     | 5805      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               | 802.11ax<br>HE40/RU106 | 165     | 5825      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                        | 151     | 5755      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                        | 159     | 5795      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               | 802.11ax<br>HE80/RU106 | 155     | 5775      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                        | 149     | 5745      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |

| Mode                          | Bandwidth             | Channel | Frequency | Pcell OFF |        |        |        | Pcell ON |        |        |        |
|-------------------------------|-----------------------|---------|-----------|-----------|--------|--------|--------|----------|--------|--------|--------|
|                               |                       |         |           | ANT5      |        | ANT6   |        | ANT5     |        | ANT6   |        |
|                               |                       |         |           | Mode A    | Mode B | Mode A | Mode B | Mode A   | Mode B | Mode A | Mode B |
| U-NII-1<br>5.2 GHz<br>(SISO)  | 802.11ax<br>HE20/RU52 | 36      | 5180      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 15.00  | 15.00  | 15.00  |
|                               |                       | 40      | 5200      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 15.00  | 15.00  | 15.00  |
|                               |                       | 44      | 5220      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 15.00  | 15.00  | 15.00  |
|                               |                       | 48      | 5240      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 15.00  | 15.00  | 15.00  |
|                               | 802.11ax<br>HE40/RU52 | 38      | 5190      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 15.00  | 15.00  | 15.00  |
|                               |                       | 46      | 5230      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 15.00  | 15.00  | 15.00  |
| U-NII-2A<br>5.2 GHz<br>(SISO) | 802.11ax<br>HE20/RU52 | 52      | 5260      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.25  | 15.00  | 15.00  |
|                               |                       | 56      | 5280      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.25  | 15.00  | 15.00  |
|                               |                       | 60      | 5300      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.25  | 15.00  | 15.00  |
|                               |                       | 64      | 5320      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.25  | 15.00  | 15.00  |
|                               | 802.11ax<br>HE40/RU52 | 54      | 5270      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.25  | 15.00  | 15.00  |
|                               |                       | 62      | 5310      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.25  | 15.00  | 15.00  |
| U-NII-2C<br>5.3 GHz<br>(SISO) | 802.11ax<br>HE20/RU52 | 58      | 5290      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.25  | 15.00  | 15.00  |
|                               |                       | 100     | 5500      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                       | 104     | 5520      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                       | 108     | 5540      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                       | 112     | 5560      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                       | 116     | 5580      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                       | 120     | 5600      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                       | 124     | 5620      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                       | 128     | 5640      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                       | 132     | 5660      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               | 802.11ax<br>HE40/RU52 | 136     | 5680      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                       | 140     | 5700      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                       | 144     | 5720      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                       | 102     | 5510      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                       | 110     | 5550      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                       | 118     | 5590      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               | 802.11ax<br>HE80/RU52 | 126     | 5630      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                       | 134     | 5670      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
| U-NII-3<br>5.8 GHz<br>(SISO)  | 802.11ax<br>HE20/RU52 | 142     | 5710      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                       | 106     | 5530      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                       | 122     | 5610      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                       | 138     | 5690      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                       | 149     | 5745      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               | 802.11ax<br>HE40/RU52 | 153     | 5765      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                       | 157     | 5785      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                       | 161     | 5805      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                       | 165     | 5825      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               | 802.11ax<br>HE80/RU52 | 151     | 5755      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                       | 159     | 5795      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               | 802.11ax<br>HE80/RU52 | 155     | 5775      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |

| Mode                          | Bandwidth             | Channel | Frequency | Pcell OFF |        |        |        | Pcell ON |        |        |        |
|-------------------------------|-----------------------|---------|-----------|-----------|--------|--------|--------|----------|--------|--------|--------|
|                               |                       |         |           | ANT5      |        | ANT6   |        | ANT5     |        | ANT6   |        |
|                               |                       |         |           | Mode A    | Mode B | Mode A | Mode B | Mode A   | Mode B | Mode A | Mode B |
| U-NII-1<br>5.2 GHz<br>(SISO)  | 802.11ax<br>HE20/RU26 | 36      | 5180      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 40      | 5200      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 44      | 5220      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 48      | 5240      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               | 802.11ax<br>HE40/RU26 | 38      | 5190      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 46      | 5230      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
| U-NII-2A<br>5.3 GHz<br>(SISO) | 802.11ax<br>HE20/RU26 | 52      | 5260      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 56      | 5280      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 60      | 5300      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 64      | 5320      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               | 802.11ax<br>HE40/RU26 | 54      | 5270      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 62      | 5310      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
| U-NII-2C<br>5.5 GHz<br>(SISO) | 802.11ax<br>HE20/RU26 | 100     | 5500      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 104     | 5520      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 108     | 5540      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 112     | 5560      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 116     | 5580      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 120     | 5600      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 124     | 5620      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 128     | 5640      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 132     | 5660      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 136     | 5680      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               | 802.11ax<br>HE40/RU26 | 140     | 5700      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 144     | 5720      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 102     | 5510      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 110     | 5550      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 118     | 5590      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 126     | 5630      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               | 802.11ax<br>HE80/RU26 | 134     | 5670      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 142     | 5710      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 106     | 5530      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 122     | 5610      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 138     | 5690      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
| Mode                          | Bandwidth             | Channel | Frequency | Pcell OFF |        |        |        | Pcell ON |        |        |        |
|                               |                       |         |           | ANT5      |        | ANT6   |        | ANT5     |        | ANT6   |        |
|                               |                       |         |           | Mode A    | Mode B | Mode A | Mode B | Mode A   | Mode B | Mode A | Mode B |
| U-NII-3<br>5.8 GHz<br>(SISO)  | 802.11ax<br>HE20/RU26 | 149     | 5745      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                       | 153     | 5765      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                       | 157     | 5785      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                       | 161     | 5805      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                       | 165     | 5825      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               | 802.11ax<br>HE40/RU26 | 151     | 5755      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                       | 159     | 5795      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               | 802.11ax<br>HE80/RU26 | 155     | 5775      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |

| Mode                          | Bandwidth              | Channel | Frequency | Pcell OFF |        |        |        | Pcell ON |        |        |        |
|-------------------------------|------------------------|---------|-----------|-----------|--------|--------|--------|----------|--------|--------|--------|
|                               |                        |         |           | ANT5      |        | ANT6   |        | ANT5     |        | ANT6   |        |
|                               |                        |         |           | Mode A    | Mode B | Mode A | Mode B | Mode A   | Mode B | Mode A | Mode B |
| U-NII-1<br>5.2 GHz<br>(MIMO)  | 802.11a/n/ac<br>20 MHz | 36      | 5180      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 17.00  | 18.00  | 17.75  |
|                               |                        | 40      | 5200      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 17.00  | 18.00  | 17.75  |
|                               |                        | 44      | 5220      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 17.00  | 18.00  | 17.75  |
|                               |                        | 48      | 5240      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 17.00  | 18.00  | 17.75  |
|                               | 802.11n/ac<br>40 MHz   | 38      | 5190      | 17.00     | 17.00  | 17.00  | 17.00  | 17.00    | 17.00  | 17.00  | 17.00  |
|                               |                        | 46      | 5230      | 20.00     | 20.00  | 20.00  | 20.00  | 20.00    | 17.00  | 20.00  | 17.75  |
| U-NII-2A<br>5.2 GHz<br>(MIMO) | 802.11a/n/ac<br>20 MHz | 42      | 5210      | 16.50     | 16.50  | 16.50  | 16.50  | 16.50    | 16.50  | 16.50  | 16.50  |
|                               |                        | 52      | 5260      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.25  | 16.50  | 15.75  |
|                               |                        | 56      | 5280      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.25  | 16.50  | 15.75  |
|                               |                        | 60      | 5300      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.25  | 16.50  | 15.75  |
|                               | 802.11n/ac<br>40 MHz   | 64      | 5320      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.25  | 16.50  | 15.75  |
|                               |                        | 54      | 5270      | 20.00     | 19.50  | 20.00  | 20.00  | 20.00    | 14.25  | 16.50  | 15.75  |
| U-NII-2C<br>5.3 GHz<br>(MIMO) | 802.11a/n/ac<br>20 MHz | 62      | 5310      | 17.00     | 17.00  | 17.00  | 17.00  | 17.00    | 14.25  | 16.50  | 15.75  |
|                               |                        | 58      | 5290      | 16.50     | 16.50  | 16.50  | 16.50  | 16.50    | 14.25  | 16.50  | 15.75  |
|                               |                        | 100     | 5500      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 104     | 5520      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 108     | 5540      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 112     | 5560      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 116     | 5580      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 120     | 5600      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 124     | 5620      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 128     | 5640      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.75  | 17.00  | 14.50  |
|                               | 802.11n/ac<br>40 MHz   | 132     | 5660      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 136     | 5680      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 140     | 5700      | 17.50     | 17.50  | 17.50  | 17.50  | 17.50    | 14.75  | 17.00  | 14.50  |
|                               |                        | 144     | 5720      | 18.00     | 18.00  | 18.00  | 18.00  | 18.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 102     | 5510      | 17.00     | 17.00  | 17.00  | 17.00  | 17.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 110     | 5550      | 20.00     | 20.00  | 20.00  | 18.75  | 20.00    | 14.75  | 17.00  | 14.50  |
|                               | 802.11ac<br>80 MHz     | 118     | 5590      | 20.00     | 20.00  | 20.00  | 18.75  | 20.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 126     | 5630      | 20.00     | 20.00  | 20.00  | 18.75  | 20.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 134     | 5670      | 20.00     | 20.00  | 20.00  | 18.75  | 20.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 142     | 5710      | 20.00     | 20.00  | 20.00  | 18.75  | 20.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 106     | 5530      | 15.50     | 15.50  | 15.50  | 15.50  | 15.50    | 14.75  | 15.50  | 14.50  |
|                               |                        | 122     | 5610      | 20.00     | 20.00  | 20.00  | 18.75  | 20.00    | 14.75  | 17.00  | 14.50  |
| U-NII-3<br>5.8 GHz<br>(MIMO)  | 802.11a/n/ac<br>20 MHz | 138     | 5690      | 20.00     | 20.00  | 20.00  | 18.75  | 20.00    | 14.75  | 17.00  | 14.50  |
|                               |                        | 149     | 5745      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                        | 153     | 5765      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                        | 157     | 5785      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                        | 161     | 5805      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               | 802.11n/ac<br>40 MHz   | 165     | 5825      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                        | 151     | 5755      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                        | 159     | 5795      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               | 802.11ac<br>80 MHz     | 155     | 5775      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                        |         |           |           |        |        |        |          |        |        |        |
|                               |                        |         |           |           |        |        |        |          |        |        |        |
|                               |                        |         |           |           |        |        |        |          |        |        |        |

| Mode                          | Bandwidth           | Channel             | Frequency | Pcell OFF |           |           |        | Pcell ON |        |          |        |       |
|-------------------------------|---------------------|---------------------|-----------|-----------|-----------|-----------|--------|----------|--------|----------|--------|-------|
|                               |                     |                     |           | ANT5      |           | ANT6      |        | ANT5     |        | ANT6     |        |       |
|                               |                     |                     |           | Mode A    | Mode B    | Mode A    | Mode B | Mode A   | Mode B | Mode A   | Mode B |       |
| U-NII-1<br>5.2 GHz<br>(MIMO)  | 802.11ax<br>HE20/SU | 36                  | 5180      | 17.00     | 17.00     | 17.00     | 17.00  | 17.00    | 17.00  | 17.00    | 17.00  |       |
|                               |                     | 40                  | 5200      | 18.00     | 18.00     | 18.00     | 18.00  | 18.00    | 17.00  | 18.00    | 17.75  |       |
|                               |                     | 44                  | 5220      | 18.00     | 18.00     | 18.00     | 18.00  | 18.00    | 17.00  | 18.00    | 17.75  |       |
|                               |                     | 48                  | 5240      | 18.00     | 18.00     | 18.00     | 18.00  | 18.00    | 17.00  | 18.00    | 17.75  |       |
|                               | 802.11ax<br>HE40/SU | 38                  | 5190      | 15.50     | 15.50     | 15.50     | 15.50  | 15.50    | 15.50  | 15.50    | 15.50  |       |
|                               |                     | 46                  | 5230      | 20.00     | 20.00     | 20.00     | 20.00  | 20.00    | 17.00  | 20.00    | 17.75  |       |
| U-NII-2A<br>5.3 GHz<br>(MIMO) | 802.11ax<br>HE20/SU | 52                  | 5260      | 18.00     | 18.00     | 18.00     | 18.00  | 18.00    | 14.25  | 16.50    | 15.75  |       |
|                               |                     | 56                  | 5280      | 18.00     | 18.00     | 18.00     | 18.00  | 18.00    | 14.25  | 16.50    | 15.75  |       |
|                               |                     | 60                  | 5300      | 18.00     | 18.00     | 18.00     | 18.00  | 18.00    | 14.25  | 16.50    | 15.75  |       |
|                               |                     | 64                  | 5320      | 17.00     | 17.00     | 17.00     | 17.00  | 17.00    | 14.25  | 16.50    | 15.75  |       |
|                               | 802.11ax<br>HE40/SU | 54                  | 5270      | 20.00     | 19.50     | 20.00     | 20.00  | 20.00    | 14.25  | 16.50    | 15.75  |       |
|                               |                     | 62                  | 5310      | 15.50     | 15.50     | 15.50     | 15.50  | 15.50    | 14.25  | 15.50    | 15.50  |       |
| U-NII-2C<br>5.5 GHz<br>(MIMO) | 802.11ax<br>HE20/SU | 100                 | 5500      | 17.00     | 17.00     | 17.00     | 17.00  | 17.00    | 14.75  | 17.00    | 14.50  |       |
|                               |                     | 104                 | 5520      | 18.00     | 18.00     | 18.00     | 18.00  | 18.00    | 14.75  | 17.00    | 14.50  |       |
|                               |                     | 108                 | 5540      | 18.00     | 18.00     | 18.00     | 18.00  | 18.00    | 14.75  | 17.00    | 14.50  |       |
|                               |                     | 112                 | 5560      | 18.00     | 18.00     | 18.00     | 18.00  | 18.00    | 14.75  | 17.00    | 14.50  |       |
|                               | 802.11ax<br>HE40/SU | 116                 | 5580      | 18.00     | 18.00     | 18.00     | 18.00  | 18.00    | 14.75  | 17.00    | 14.50  |       |
|                               |                     | 120                 | 5600      | 18.00     | 18.00     | 18.00     | 18.00  | 18.00    | 14.75  | 17.00    | 14.50  |       |
| 124                           |                     | 5620                | 18.00     | 18.00     | 18.00     | 18.00     | 18.00  | 14.75    | 17.00  | 14.50    |        |       |
| 128                           |                     | 5640                | 18.00     | 18.00     | 18.00     | 18.00     | 18.00  | 14.75    | 17.00  | 14.50    |        |       |
| 132                           |                     | 5660                | 18.00     | 18.00     | 18.00     | 18.00     | 18.00  | 14.75    | 17.00  | 14.50    |        |       |
| 136                           |                     | 5680                | 18.00     | 18.00     | 18.00     | 18.00     | 18.00  | 14.75    | 17.00  | 14.50    |        |       |
| U-NII-3<br>5.8 GHz<br>(MIMO)  | 802.11ax<br>HE20/SU | 140                 | 5700      | 16.00     | 16.00     | 16.00     | 16.00  | 16.00    | 14.75  | 16.00    | 14.50  |       |
|                               |                     | 144                 | 5720      | 18.00     | 18.00     | 18.00     | 18.00  | 18.00    | 14.75  | 17.00    | 14.50  |       |
|                               |                     | 102                 | 5510      | 15.50     | 15.50     | 15.50     | 15.50  | 15.50    | 14.75  | 15.50    | 14.50  |       |
|                               |                     | 110                 | 5550      | 20.00     | 20.00     | 19.25     | 18.75  | 20.00    | 14.75  | 17.00    | 14.50  |       |
|                               | 802.11ax<br>HE40/SU | 118                 | 5590      | 20.00     | 20.00     | 20.00     | 18.75  | 20.00    | 14.75  | 17.00    | 14.50  |       |
|                               |                     | 126                 | 5630      | 20.00     | 20.00     | 20.00     | 18.75  | 20.00    | 14.75  | 17.00    | 14.50  |       |
| U-NII-3<br>5.8 GHz<br>(MIMO)  | 802.11ax<br>HE40/SU | 134                 | 5670      | 18.50     | 18.50     | 18.50     | 18.50  | 18.50    | 14.75  | 17.00    | 14.50  |       |
|                               |                     | 142                 | 5710      | 20.00     | 20.00     | 20.00     | 18.75  | 20.00    | 14.75  | 17.00    | 14.50  |       |
|                               |                     | 802.11ax<br>HE80/SU | 106       | 5530      | 14.00     | 14.00     | 14.00  | 14.00    | 14.00  | 14.00    | 14.00  | 14.00 |
|                               |                     |                     | 122       | 5610      | 20.00     | 20.00     | 20.00  | 18.75    | 20.00  | 14.75    | 17.00  | 14.50 |
|                               | 802.11ax<br>HE80/SU | 138                 | 5690      | 20.00     | 20.00     | 20.00     | 18.75  | 20.00    | 14.75  | 17.00    | 14.50  |       |
|                               |                     | Mode                | Bandwidth | Channel   | Frequency | Pcell OFF |        |          |        | Pcell ON |        |       |
| ANT5                          |                     |                     |           |           |           | ANT6      |        | ANT5     |        | ANT6     |        |       |
| Mode A                        | Mode B              |                     |           |           |           | Mode A    | Mode B | Mode A   | Mode B | Mode A   | Mode B |       |
| U-NII-3<br>5.8 GHz<br>(MIMO)  | 802.11ax<br>HE20/SU | 149                 | 5745      | 21.50     | 18.00     | 21.50     | 20.25  | 21.50    | 12.50  | 17.50    | 16.00  |       |
|                               |                     | 153                 | 5765      | 21.50     | 18.00     | 21.50     | 20.25  | 21.50    | 12.50  | 17.50    | 16.00  |       |
|                               |                     | 157                 | 5785      | 21.50     | 18.00     | 21.50     | 20.25  | 21.50    | 12.50  | 17.50    | 16.00  |       |
|                               |                     | 161                 | 5805      | 21.50     | 18.00     | 21.50     | 20.25  | 21.50    | 12.50  | 17.50    | 16.00  |       |
|                               | 802.11ax<br>HE40/SU | 165                 | 5825      | 21.50     | 18.00     | 21.50     | 20.25  | 21.50    | 12.50  | 17.50    | 16.00  |       |
|                               |                     | 151                 | 5755      | 21.50     | 18.00     | 21.50     | 20.25  | 21.50    | 12.50  | 17.50    | 16.00  |       |
|                               | 802.11ax<br>HE80/SU | 159                 | 5795      | 21.50     | 18.00     | 21.50     | 20.25  | 21.50    | 12.50  | 17.50    | 16.00  |       |
|                               |                     | 155                 | 5775      | 20.00     | 18.00     | 20.00     | 20.00  | 20.00    | 12.50  | 17.50    | 16.00  |       |

**Note(s):**

The powers in the table above are for the fully loaded channels. When operating on partially loaded channels the power levels for HE80 RU484 are the same or lower than the equivalent HE40 SU power for the mode (A or B, Pcell\_ON or Pcell\_OFF); the power levels for HE80 RU242 and for HE40 RU242 are the same or lower than the equivalent HE20 SU power; the power levels for all other RU allocations for all bandwidths (RU106, RU52 and RU26) are all the same or lower than HE20 SU power.

| Mode                          | Bandwidth              | Channel | Frequency | Pcell OFF |        |        |        | Pcell ON |        |        |        |
|-------------------------------|------------------------|---------|-----------|-----------|--------|--------|--------|----------|--------|--------|--------|
|                               |                        |         |           | ANT5      |        | ANT6   |        | ANT5     |        | ANT6   |        |
|                               |                        |         |           | Mode A    | Mode B | Mode A | Mode B | Mode A   | Mode B | Mode A | Mode B |
| U-NII-1<br>5.2 GHz<br>(MIMO)  | 802.11ax<br>HE20/RU106 | 36      | 5180      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 15.00  | 15.00  | 15.00  |
|                               |                        | 40      | 5200      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 15.00  | 15.00  | 15.00  |
|                               |                        | 44      | 5220      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 15.00  | 15.00  | 15.00  |
|                               |                        | 48      | 5240      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 15.00  | 15.00  | 15.00  |
|                               | 802.11ax<br>HE40/RU106 | 38      | 5190      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 15.00  | 15.00  | 15.00  |
|                               |                        | 46      | 5230      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 15.00  | 15.00  | 15.00  |
| U-NII-2A<br>5.2 GHz<br>(MIMO) | 802.11ax<br>HE20/RU106 | 42      | 5210      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 15.00  | 15.00  | 15.00  |
|                               |                        | 52      | 5260      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.25  | 15.00  | 15.00  |
|                               |                        | 56      | 5280      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.25  | 15.00  | 15.00  |
|                               |                        | 60      | 5300      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.25  | 15.00  | 15.00  |
|                               | 802.11ax<br>HE40/RU106 | 64      | 5320      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.25  | 15.00  | 15.00  |
|                               |                        | 54      | 5270      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.25  | 15.00  | 15.00  |
| U-NII-2C<br>5.3 GHz<br>(MIMO) | 802.11ax<br>HE20/RU106 | 62      | 5310      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.25  | 15.00  | 15.00  |
|                               |                        | 58      | 5290      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.25  | 15.00  | 15.00  |
|                               |                        | 100     | 5500      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                        | 104     | 5520      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                        | 108     | 5540      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                        | 112     | 5560      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                        | 116     | 5580      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                        | 120     | 5600      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                        | 124     | 5620      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                        | 128     | 5640      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               | 802.11ax<br>HE40/RU106 | 132     | 5660      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                        | 136     | 5680      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                        | 140     | 5700      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                        | 144     | 5720      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                        | 102     | 5510      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                        | 110     | 5550      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               | 802.11ax<br>HE80/RU106 | 118     | 5590      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                        | 126     | 5630      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                        | 134     | 5670      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                        | 142     | 5710      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
| U-NII-3<br>5.8 GHz<br>(MIMO)  | 802.11ax<br>HE20/RU106 | 106     | 5530      | 14.00     | 14.00  | 14.00  | 14.00  | 14.00    | 14.00  | 14.00  | 14.00  |
|                               |                        | 122     | 5610      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                        | 138     | 5690      | 15.00     | 15.00  | 15.00  | 15.00  | 15.00    | 14.75  | 15.00  | 14.50  |
|                               |                        | 149     | 5745      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                        | 153     | 5765      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               | 802.11ax<br>HE40/RU106 | 157     | 5785      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                        | 161     | 5805      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               | 802.11ax<br>HE80/RU106 | 165     | 5825      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                        | 151     | 5755      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                        | 159     | 5795      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                        | 155     | 5775      | 20.00     | 18.00  | 20.00  | 20.00  | 20.00    | 12.50  | 17.50  | 16.00  |

| Mode                          | Bandwidth             | Channel | Frequency | Pcell OFF |        |        |        | Pcell ON |        |        |        |
|-------------------------------|-----------------------|---------|-----------|-----------|--------|--------|--------|----------|--------|--------|--------|
|                               |                       |         |           | ANT5      |        | ANT6   |        | ANT5     |        | ANT6   |        |
|                               |                       |         |           | Mode A    | Mode B | Mode A | Mode B | Mode A   | Mode B | Mode A | Mode B |
| U-NII-1<br>5.2 GHz<br>(MIMO)  | 802.11ax<br>HE20/RU52 | 36      | 5180      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 40      | 5200      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 44      | 5220      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 48      | 5240      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               | 802.11ax<br>HE40/RU52 | 38      | 5190      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 46      | 5230      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
| U-NII-2A<br>5.3 GHz<br>(MIMO) | 802.11ax<br>HE20/RU52 | 52      | 5260      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 56      | 5280      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 60      | 5300      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 64      | 5320      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               | 802.11ax<br>HE40/RU52 | 54      | 5270      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 62      | 5310      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
| U-NII-2C<br>5.5 GHz<br>(MIMO) | 802.11ax<br>HE20/RU52 | 100     | 5500      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 104     | 5520      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 108     | 5540      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 112     | 5560      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 116     | 5580      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 120     | 5600      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 124     | 5620      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 128     | 5640      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 132     | 5660      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 136     | 5680      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               | 802.11ax<br>HE40/RU52 | 140     | 5700      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 144     | 5720      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 102     | 5510      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 110     | 5550      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 118     | 5590      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 126     | 5630      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               | 802.11ax<br>HE80/RU52 | 134     | 5670      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 142     | 5710      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 106     | 5530      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 122     | 5610      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
|                               |                       | 138     | 5690      | 12.00     | 12.00  | 12.00  | 12.00  | 12.00    | 12.00  | 12.00  | 12.00  |
| Mode                          | Bandwidth             | Channel | Frequency | Pcell OFF |        |        |        | Pcell ON |        |        |        |
|                               |                       |         |           | ANT5      |        | ANT6   |        | ANT5     |        | ANT6   |        |
|                               |                       |         |           | Mode A    | Mode B | Mode A | Mode B | Mode A   | Mode B | Mode A | Mode B |
| U-NII-3<br>5.8 GHz<br>(MIMO)  | 802.11ax<br>HE20/RU52 | 149     | 5745      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                       | 153     | 5765      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                       | 157     | 5785      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                       | 161     | 5805      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                       | 165     | 5825      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               | 802.11ax<br>HE40/RU52 | 151     | 5755      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                       | 159     | 5795      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               | 802.11ax<br>HE80/RU52 | 155     | 5775      | 20.00     | 18.00  | 20.00  | 20.00  | 20.00    | 12.50  | 17.50  | 16.00  |

| Mode                          | Bandwidth             | Channel | Frequency | Pcell OFF |        |        |        | Pcell ON |        |        |        |
|-------------------------------|-----------------------|---------|-----------|-----------|--------|--------|--------|----------|--------|--------|--------|
|                               |                       |         |           | ANT5      |        | ANT6   |        | ANT5     |        | ANT6   |        |
|                               |                       |         |           | Mode A    | Mode B | Mode A | Mode B | Mode A   | Mode B | Mode A | Mode B |
| U-NII-1<br>5.2 GHz<br>(MIMO)  | 802.11ax<br>HE20/RU26 | 36      | 5180      | 9.00      | 9.00   | 9.00   | 9.00   | 9.00     | 9.00   | 9.00   | 9.00   |
|                               |                       | 40      | 5200      | 9.00      | 9.00   | 9.00   | 9.00   | 9.00     | 9.00   | 9.00   | 9.00   |
|                               |                       | 44      | 5220      | 9.00      | 9.00   | 9.00   | 9.00   | 9.00     | 9.00   | 9.00   | 9.00   |
|                               |                       | 48      | 5240      | 9.00      | 9.00   | 9.00   | 9.00   | 9.00     | 9.00   | 9.00   | 9.00   |
|                               | 802.11ax<br>HE40/RU26 | 38      | 5190      | 9.00      | 9.00   | 9.00   | 9.00   | 9.00     | 9.00   | 9.00   | 9.00   |
|                               |                       | 46      | 5230      | 9.00      | 9.00   | 9.00   | 9.00   | 9.00     | 9.00   | 9.00   | 9.00   |
| U-NII-2A<br>5.2 GHz<br>(MIMO) | 802.11ax<br>HE20/RU26 | 52      | 5260      | 9.00      | 9.00   | 9.00   | 9.00   | 9.00     | 9.00   | 9.00   | 9.00   |
|                               |                       | 56      | 5280      | 9.00      | 9.00   | 9.00   | 9.00   | 9.00     | 9.00   | 9.00   | 9.00   |
|                               |                       | 60      | 5300      | 9.00      | 9.00   | 9.00   | 9.00   | 9.00     | 9.00   | 9.00   | 9.00   |
|                               |                       | 64      | 5320      | 9.00      | 9.00   | 9.00   | 9.00   | 9.00     | 9.00   | 9.00   | 9.00   |
|                               | 802.11ax<br>HE40/RU26 | 54      | 5270      | 9.00      | 9.00   | 9.00   | 9.00   | 9.00     | 9.00   | 9.00   | 9.00   |
|                               |                       | 62      | 5310      | 9.00      | 9.00   | 9.00   | 9.00   | 9.00     | 9.00   | 9.00   | 9.00   |
| U-NII-2C<br>5.3 GHz<br>(MIMO) | 802.11ax<br>HE20/RU26 | 100     | 5500      | 9.00      | 9.00   | 9.00   | 9.00   | 9.00     | 9.00   | 9.00   | 9.00   |
|                               |                       | 104     | 5520      | 9.00      | 9.00   | 9.00   | 9.00   | 9.00     | 9.00   | 9.00   | 9.00   |
|                               |                       | 108     | 5540      | 9.00      | 9.00   | 9.00   | 9.00   | 9.00     | 9.00   | 9.00   | 9.00   |
|                               |                       | 112     | 5560      | 9.00      | 9.00   | 9.00   | 9.00   | 9.00     | 9.00   | 9.00   | 9.00   |
|                               |                       | 116     | 5580      | 9.00      | 9.00   | 9.00   | 9.00   | 9.00     | 9.00   | 9.00   | 9.00   |
|                               |                       | 120     | 5600      | 9.00      | 9.00   | 9.00   | 9.00   | 9.00     | 9.00   | 9.00   | 9.00   |
|                               |                       | 124     | 5620      | 9.00      | 9.00   | 9.00   | 9.00   | 9.00     | 9.00   | 9.00   | 9.00   |
|                               |                       | 128     | 5640      | 9.00      | 9.00   | 9.00   | 9.00   | 9.00     | 9.00   | 9.00   | 9.00   |
|                               |                       | 132     | 5660      | 9.00      | 9.00   | 9.00   | 9.00   | 9.00     | 9.00   | 9.00   | 9.00   |
|                               |                       | 136     | 5680      | 9.00      | 9.00   | 9.00   | 9.00   | 9.00     | 9.00   | 9.00   | 9.00   |
|                               | 802.11ax<br>HE40/RU26 | 140     | 5700      | 9.00      | 9.00   | 9.00   | 9.00   | 9.00     | 9.00   | 9.00   | 9.00   |
|                               |                       | 144     | 5720      | 9.00      | 9.00   | 9.00   | 9.00   | 9.00     | 9.00   | 9.00   | 9.00   |
|                               |                       | 102     | 5510      | 9.00      | 9.00   | 9.00   | 9.00   | 9.00     | 9.00   | 9.00   | 9.00   |
|                               |                       | 110     | 5550      | 9.00      | 9.00   | 9.00   | 9.00   | 9.00     | 9.00   | 9.00   | 9.00   |
|                               |                       | 118     | 5590      | 9.00      | 9.00   | 9.00   | 9.00   | 9.00     | 9.00   | 9.00   | 9.00   |
|                               |                       | 126     | 5630      | 9.00      | 9.00   | 9.00   | 9.00   | 9.00     | 9.00   | 9.00   | 9.00   |
|                               | 802.11ax<br>HE80/RU26 | 134     | 5670      | 9.00      | 9.00   | 9.00   | 9.00   | 9.00     | 9.00   | 9.00   | 9.00   |
|                               |                       | 142     | 5710      | 9.00      | 9.00   | 9.00   | 9.00   | 9.00     | 9.00   | 9.00   | 9.00   |
|                               |                       | 106     | 5530      | 9.00      | 9.00   | 9.00   | 9.00   | 9.00     | 9.00   | 9.00   | 9.00   |
|                               |                       | 122     | 5610      | 9.00      | 9.00   | 9.00   | 9.00   | 9.00     | 9.00   | 9.00   | 9.00   |
| U-NII-3<br>5.8 GHz<br>(MIMO)  | 802.11ax<br>HE20/RU26 | 149     | 5745      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                       | 153     | 5765      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                       | 157     | 5785      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                       | 161     | 5805      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                       | 165     | 5825      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               | 802.11ax<br>HE40/RU26 | 151     | 5755      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               |                       | 159     | 5795      | 21.50     | 18.00  | 21.50  | 20.25  | 21.50    | 12.50  | 17.50  | 16.00  |
|                               | 802.11ax<br>HE80/RU26 | 155     | 5775      | 20.00     | 18.00  | 20.00  | 20.00  | 20.00    | 12.50  | 17.50  | 16.00  |

**Wi-Fi 5 GHz Measured Results**

The maximum output power specified for production units are determined for all applicable 802.11 transmission modes in each standalone and aggregated frequency band. Maximum output power is measured for the highest maximum output power configuration(s) in each frequency band according to the default power measurement procedures.

When the same transmission mode configurations have the same maximum output power on the same channel for the 802.11 a/g/n/ac modes, the channel in the lower order/sequence 802.11 mode (i.e. a, g, n then ac) is selected.

SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band. Additional output power measurements were not deemed necessary.

| Power Mode | Antenna | Mode           | Mode            | Ch # | Freq. (MHz) | Power Mode A (dBm) |                    |                   | Power Mode B (dBm) |                    |                   |                   |
|------------|---------|----------------|-----------------|------|-------------|--------------------|--------------------|-------------------|--------------------|--------------------|-------------------|-------------------|
|            |         |                |                 |      |             | Meas Pwr           | Tune-up            | SAR Test (Yes/No) | Meas Pwr           | Tune-up            | SAR Test (Yes/No) |                   |
| Pcell OFF  | ANT5    | U-NII-2A       | 802.11n HT40    | 54   | 5270        | 21.50              | 21.50              | Yes               |                    |                    |                   |                   |
|            |         |                |                 | 62   | 5310        | 17.50              | 17.50              | Yes               |                    |                    |                   |                   |
|            |         | U-NII-1        | 802.11n HT40    | 38   | 5190        |                    |                    |                   | 17.50              | 17.50              | Yes               |                   |
|            |         |                |                 | 46   | 5230        |                    |                    |                   | 21.50              | 21.50              | Yes               |                   |
|            |         | U-NII-2C       | 802.11ac VHT80  | 106  | 5530        | 16.50              | 16.50              | Yes               | 16.50              | 16.50              | Yes               |                   |
|            |         |                |                 | 122  | 5610        | 21.50              | 21.50              |                   | 20.00              | 20.00              |                   |                   |
|            |         |                |                 | 138  | 5690        | 21.50              | 21.50              |                   | 20.00              | 20.00              |                   |                   |
|            |         | U-NII-3        | 802.11ac VHT80  | 155  | 5775        | 21.50              | 21.50              | Yes               | 18.00              | 18.00              | Yes               |                   |
|            | ANT6    | U-NII-1        | 802.11n HT40    | 38   | 5190        | 17.50              | 17.50              | Yes               | 17.50              | 17.50              | Yes               |                   |
|            |         |                |                 | 46   | 5230        | 21.50              | 21.50              |                   | 21.50              | 21.50              |                   |                   |
|            |         | U-NII-2C       | 802.11ac VHT80  | 106  | 5530        | 16.50              | 16.50              | Yes               | 16.50              | 16.50              | Yes               |                   |
|            |         |                |                 | 122  | 5610        | 20.00              | 20.00              |                   | 18.75              | 18.75              |                   |                   |
|            |         |                |                 | 138  | 5690        | 21.50              | 21.50              |                   | 18.75              | 18.75              |                   |                   |
|            |         | U-NII-3        | 802.11ac VHT80  | 155  | 5775        | 21.50              | 21.50              | Yes               | 20.25              | 20.25              | Yes               |                   |
| Power Mode |         | Antenna        | Mode            | Mode | Ch #        | Freq. (MHz)        | Power Mode A (dBm) |                   |                    | Power Mode B (dBm) |                   |                   |
|            |         |                |                 |      |             |                    | Meas Pwr           | Tune-up           | SAR Test (Yes/No)  | Meas Pwr           | Tune-up           | SAR Test (Yes/No) |
| Pcell ON   | ANT5    | U-NII-2A       | 802.11n/ac HT40 | 54   | 5270        | 21.50              | 21.50              | Yes               |                    |                    |                   |                   |
|            |         |                |                 | 62   | 5310        | 17.50              | 17.50              |                   |                    |                    |                   |                   |
|            |         | U-NII-1        | 802.11ac VHT80  | 42   | 5210        |                    |                    |                   | 17.00              | 17.00              | Yes               |                   |
|            |         | U-NII-2C       | 802.11ac VHT80  | 106  | 5530        | 16.50              | 16.50              | Yes               | 14.75              | 14.75              | Yes               |                   |
|            |         |                |                 | 122  | 5610        | 21.50              | 21.50              |                   | 14.75              | 14.75              |                   |                   |
|            |         |                |                 | 138  | 5690        | 21.50              | 21.50              |                   | 14.75              | 14.75              |                   |                   |
|            | U-NII-3 | 802.11ac VHT80 | 155             | 5775 | 21.50       | 21.50              | Yes                | 12.50             | 12.50              | Yes                |                   |                   |
|            | ANT6    | U-NII-1        | 802.11n/ac HT40 | 38   | 5190        | 17.50              | 17.50              | Yes               | 17.50              | 17.50              | Yes               |                   |
|            |         |                |                 | 46   | 5230        | 20.75              | 20.75              |                   | 17.75              | 17.75              |                   |                   |
|            |         | U-NII-2C       | 802.11ac VHT80  | 106  | 5530        | 16.50              | 16.50              | Yes               | 14.50              | 14.50              | Yes               |                   |
|            |         |                |                 | 122  | 5610        | 17.00              | 17.00              |                   | 14.50              | 14.50              |                   |                   |
|            |         |                |                 | 138  | 5690        | 17.00              | 17.00              |                   | 14.50              | 14.50              |                   |                   |
|            |         | U-NII-3        | 802.11ac VHT80  | 155  | 5775        | 17.50              | 17.50              | Yes               | 16.00              | 16.00              | Yes               |                   |

## 9.9. Bluetooth

From October 2016 TCB workshop, this device power and SAR measured is performed with test software, the duty cycle is 100%.

According to 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 <1.6W/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.

### Bluetooth ( $P_{low}$ , $P_{high}$ , and $P_{standalone}$ )

For Bluetooth, there are three use cases:

- Bluetooth  $P_{low}$  is used with Wi-Fi and WWAN antennas are active.
- Bluetooth  $P_{high}$  is used when Wi-Fi antenna is active and WWAN antenna is inactive or with Wi-Fi inactive and WWAN antenna is active.
- Bluetooth  $P_{standalone}$  is used with Wi-Fi and WWAN antennas are inactive.

| Mode | Maximum Output Power (Tune-up Limit)<br>(dBm) |        |        |        |                      |        |        |        |                            |        |        |        |
|------|-----------------------------------------------|--------|--------|--------|----------------------|--------|--------|--------|----------------------------|--------|--------|--------|
|      | Bluetooth $P_{low}$                           |        |        |        | Bluetooth $P_{high}$ |        |        |        | Bluetooth $P_{standalone}$ |        |        |        |
|      | ANT3                                          |        | ANT4   |        | ANT3                 |        | ANT4   |        | ANT3                       |        | ANT4   |        |
|      | Mode A                                        | Mode B | Mode A | Mode B | Mode A               | Mode B | Mode A | Mode B | Mode A                     | Mode B | Mode A | Mode B |
| GFSK | 11.00                                         | 11.00  | 8.50   | 9.00   | 19.50                | 15.00  | 12.50  | 13.00  | 19.50                      | 18.50  | 16.00  | 16.50  |
| EDR  | 11.00                                         | 11.00  | 8.50   | 9.00   | 16.00                | 15.00  | 12.50  | 13.00  | 16.00                      | 16.00  | 16.00  | 16.00  |
| LE   | 11.00                                         | 11.00  | 8.50   | 9.00   | 19.50                | 15.00  | 12.50  | 13.00  | 19.50                      | 18.50  | 16.00  | 16.50  |
| HDR  | 11.00                                         | 11.00  | 8.50   | 9.00   | 12.00                | 12.00  | 12.00  | 12.00  | 12.00                      | 12.00  | 12.00  | 12.00  |

This device supports Bluetooth beamforming. SAR measurement is not required for Beamforming when the output power is equal or less than a single chain. Please refer to BT tune-up procedure.

### Bluetooth Measured Results

SAR measurement is not required for the EDR, LE, and HDR. When the secondary mode is  $\leq \frac{1}{4}$  dB higher than the primary mode.

| Power Mode                    | Antenna | Mode | Ch # | Freq.<br>(MHz) | Power Mode A<br>(dBm) |         |                      | Power Mode B<br>(dBm) |         |                      |
|-------------------------------|---------|------|------|----------------|-----------------------|---------|----------------------|-----------------------|---------|----------------------|
|                               |         |      |      |                | Meas Pwr              | Tune-up | SAR Test<br>(Yes/No) | Meas Pwr              | Tune-up | SAR Test<br>(Yes/No) |
| Bluetooth<br>$P_{low}$        | ANT3    | GFSK | 0    | 2402           | 11.00                 | 11.00   | Yes                  | 11.00                 | 11.00   | Yes                  |
|                               |         |      | 39   | 2441           | 11.00                 | 11.00   |                      | 11.00                 | 11.00   |                      |
|                               |         |      | 78   | 2480           | 11.00                 | 11.00   |                      | 11.00                 | 11.00   |                      |
|                               | ANT4    | GFSK | 0    | 2402           | 8.50                  | 8.50    | Yes                  | 9.00                  | 9.00    | Yes                  |
|                               |         |      | 39   | 2441           | 8.50                  | 8.50    |                      | 9.00                  | 9.00    |                      |
|                               |         |      | 78   | 2480           | 8.50                  | 8.50    |                      | 9.00                  | 9.00    |                      |
| Bluetooth<br>$P_{high}$       | ANT3    | GFSK | 0    | 2402           | 19.50                 | 19.50   | Yes                  | 15.00                 | 15.00   | Yes                  |
|                               |         |      | 39   | 2441           | 19.50                 | 19.50   |                      | 15.00                 | 15.00   |                      |
|                               |         |      | 78   | 2480           | 19.50                 | 19.50   |                      | 15.00                 | 15.00   |                      |
|                               | ANT4    | GFSK | 0    | 2402           | 12.50                 | 12.50   | Yes                  | 13.00                 | 13.00   | Yes                  |
|                               |         |      | 39   | 2441           | 12.50                 | 12.50   |                      | 13.00                 | 13.00   |                      |
|                               |         |      | 78   | 2480           | 12.50                 | 12.50   |                      | 13.00                 | 13.00   |                      |
| Bluetooth<br>$P_{standalone}$ | ANT3    | GFSK | 0    | 2402           | 19.50                 | 19.50   | Yes                  | 18.50                 | 18.50   | Yes                  |
|                               |         |      | 39   | 2441           | 19.50                 | 19.50   |                      | 18.50                 | 18.50   |                      |
|                               |         |      | 78   | 2480           | 19.50                 | 19.50   |                      | 18.50                 | 18.50   |                      |
|                               | ANT4    | GFSK | 0    | 2402           | 16.00                 | 16.00   | Yes                  | 16.50                 | 16.50   | Yes                  |
|                               |         |      | 39   | 2441           | 16.00                 | 16.00   |                      | 16.50                 | 16.50   |                      |
|                               |         |      | 78   | 2480           | 16.00                 | 16.00   |                      | 16.50                 | 16.50   |                      |

**Duty Factor Measured Results**

| Mode | Type | T on (ms) | Period (ms) | Duty Cycle | Crest Factor (1/duty cycle) |
|------|------|-----------|-------------|------------|-----------------------------|
| GFSK | DH5  | 1         | 1           | 100.00%    | 1.00                        |

**Note(s):**

Duty Cycle = (T on / period) \* 100%

**Duty Cycle plots**

GFSK



## 10. Measured and Reported (Scaled) SAR Results

### SAR Test Reduction criteria are as follows:

- Reported SAR(W/kg) for WWAN = Measured SAR \* Tune-up Scaling Factor
- Reported SAR(W/kg) for Wi-Fi and Bluetooth = Measured SAR \* Tune-up scaling factor \* Duty Cycle scaling factor
- Duty Cycle scaling factor = 1 / Duty cycle (%)

### KDB 447498 D01 General RF Exposure Guidance:

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 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.

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.

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.

**10.1. GSM850**

| Antenna | RF Exposure Conditions | Mode         | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|------------------------|--------------|------------|------------|---------------|-------|-------------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |                        |              |            |            |               |       |             | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT1    | Head                   | GPRS 2 Slots | Mode A     | 0          | Left Touch    | 190   | 836.6       | 32.25         | 31.75 | 0.237          | 0.266  | 0.184           | 0.206  |          |
|         |                        |              |            |            | Left Tilt     | 190   | 836.6       | 32.25         | 31.75 | 0.126          | 0.141  | 0.097           | 0.109  |          |
|         |                        |              |            |            | Right Touch   | 190   | 836.6       | 32.25         | 31.75 | 0.253          | 0.284  | 0.197           | 0.221  | 1        |
|         |                        |              |            |            | Right Tilt    | 190   | 836.6       | 32.25         | 31.75 | 0.121          | 0.136  | 0.095           | 0.107  |          |
|         | Body & Hotspot         | GPRS 2 Slots | Mode B     | 5          | Rear          | 190   | 836.6       | 32.25         | 31.75 | 0.544          | 0.610  | 0.334           | 0.375  | 2        |
|         |                        |              |            |            | Front         | 190   | 836.6       | 32.25         | 31.75 | 0.289          | 0.324  | 0.189           | 0.212  |          |
|         | Hotspot                | GPRS 2 Slots | Mode B     | 5          | Edge 2        | 190   | 836.6       | 32.25         | 31.75 | 0.545          | 0.612  | 0.351           | 0.394  | 3        |
|         |                        |              |            |            | Edge 3        | 190   | 836.6       | 32.25         | 31.75 | 0.171          | 0.192  | 0.092           | 0.103  |          |
|         |                        |              |            |            | Edge 4        | 190   | 836.6       | 32.25         | 31.75 | 0.267          | 0.300  | 0.171           | 0.192  |          |
| Antenna | RF Exposure Conditions | Mode         | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|         |                        |              |            |            |               |       |             | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT2    | Head                   | GPRS 2 Slots | Mode A     | 0          | Left Touch    | 190   | 836.6       | 30.75         | 30.25 | 0.408          | 0.458  | 0.298           | 0.334  |          |
|         |                        |              |            |            | Left Tilt     | 190   | 836.6       | 30.75         | 30.25 | 0.281          | 0.315  | 0.170           | 0.191  |          |
|         |                        |              |            |            | Right Touch   | 190   | 836.6       | 30.75         | 30.25 | 0.489          | 0.549  | 0.335           | 0.376  | 4        |
|         |                        |              |            |            | Right Tilt    | 190   | 836.6       | 30.75         | 30.25 | 0.369          | 0.414  | 0.208           | 0.233  |          |
|         | Body & Hotspot         | GPRS 2 Slots | Mode B     | 5          | Rear          | 190   | 836.6       | 30.75         | 30.25 | 0.285          | 0.320  | 0.166           | 0.186  | 5        |
|         |                        |              |            |            | Front         | 190   | 836.6       | 30.75         | 30.25 | 0.166          | 0.186  | 0.112           | 0.126  |          |
|         | Hotspot                | GPRS 2 Slots | Mode B     | 5          | Edge 1        | 190   | 836.6       | 30.75         | 30.25 | 0.084          | 0.094  | 0.046           | 0.052  |          |
|         |                        |              |            |            | Edge 2        | 190   | 836.6       | 30.75         | 30.25 | 0.179          | 0.201  | 0.115           | 0.129  |          |
|         |                        |              |            |            | Edge 4        | 190   | 836.6       | 30.75         | 30.25 | 0.311          | 0.349  | 0.200           | 0.224  | 6        |

**10.2. GSM1900**

| Antenna | RF Exposure Conditions | Mode         | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|------------------------|--------------|------------|------------|---------------|-------|-------------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |                        |              |            |            |               |       |             | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT1    | Head                   | GPRS 2 Slots | Mode A     | 0          | Left Touch    | 661   | 1880.0      | 30.75         | 30.25 | 0.077          | 0.087  | 0.049           | 0.055  | 7        |
|         |                        |              |            |            | Left Tilt     | 661   | 1880.0      | 30.75         | 30.25 | 0.078          | 0.087  | 0.044           | 0.049  |          |
|         |                        |              |            |            | Right Touch   | 661   | 1880.0      | 30.75         | 30.25 | 0.171          | 0.192  | 0.106           | 0.119  |          |
|         |                        |              |            |            | Right Tilt    | 661   | 1880.0      | 30.75         | 30.25 | 0.066          | 0.074  | 0.040           | 0.045  |          |
|         | Body & Hotspot         | GPRS 2 Slots | Mode B     | 5          | Rear          | 512   | 1850.2      | 27.75         | 27.60 | 0.858          | 0.888  | 0.414           | 0.429  | 8        |
|         |                        |              |            |            |               | 661   | 1880.0      | 27.75         | 27.50 | 0.911          | 0.965  | 0.441           | 0.467  |          |
|         |                        |              |            |            |               | 810   | 1909.8      | 27.75         | 27.40 | 0.874          | 0.947  | 0.428           | 0.464  |          |
|         |                        |              |            |            | Front         | 661   | 1880.0      | 27.75         | 27.50 | 0.679          | 0.719  | 0.363           | 0.385  |          |
|         | Hotspot                | GPRS 2 Slots | Mode B     | 5          | Edge 2        | 512   | 1850.2      | 27.75         | 27.60 | 0.730          | 0.756  | 0.344           | 0.356  |          |
|         |                        |              |            |            |               | 661   | 1880.0      | 27.75         | 27.50 | 0.775          | 0.821  | 0.357           | 0.378  |          |
|         |                        |              |            |            |               | 810   | 1909.8      | 27.75         | 27.40 | 0.805          | 0.873  | 0.356           | 0.386  |          |
|         |                        |              |            |            | Edge 3        | 661   | 1880.0      | 27.75         | 27.50 | 0.471          | 0.499  | 0.210           | 0.222  |          |
|         |                        |              |            |            | Edge 4        | 661   | 1880.0      | 27.75         | 27.50 | 0.040          | 0.042  | 0.021           | 0.022  |          |
| Antenna | RF Exposure Conditions | Mode         | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|         |                        |              |            |            |               |       |             | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT2    | Head                   | GPRS 2 Slots | Mode A     | 0          | Left Touch    | 661   | 1880.0      | 26.50         | 26.20 | 0.293          | 0.314  | 0.151           | 0.162  |          |
|         |                        |              |            |            | Left Tilt     | 661   | 1880.0      | 26.50         | 26.20 | 0.327          | 0.350  | 0.162           | 0.174  |          |
|         |                        |              |            |            | Right Touch   | 512   | 1850.2      | 26.50         | 26.50 | 0.886          | 0.886  | 0.446           | 0.446  |          |
|         |                        |              |            |            |               | 661   | 1880.0      | 26.50         | 26.20 | 0.767          | 0.822  | 0.384           | 0.411  |          |
|         |                        |              |            |            | Right Tilt    | 810   | 1909.8      | 26.50         | 26.20 | 0.681          | 0.730  | 0.352           | 0.377  |          |
|         |                        |              |            |            |               | 512   | 1850.2      | 26.50         | 26.50 | 0.758          | 0.758  | 0.348           | 0.348  |          |
|         |                        |              |            |            |               | 661   | 1880.0      | 26.50         | 26.20 | 0.819          | 0.878  | 0.376           | 0.403  |          |
|         |                        |              |            |            |               | 810   | 1909.8      | 26.50         | 26.20 | 0.838          | 0.898  | 0.383           | 0.410  |          |
|         | Body & Hotspot         | GPRS 2 Slots | Mode B     | 5          | Rear          | 512   | 1850.2      | 25.50         | 25.25 | 0.759          | 0.804  | 0.340           | 0.360  | 10       |
|         |                        |              |            |            |               | 661   | 1880.0      | 25.50         | 25.25 | 0.830          | 0.879  | 0.370           | 0.392  |          |
|         |                        |              |            |            |               | 810   | 1909.8      | 25.50         | 25.25 | 0.807          | 0.855  | 0.350           | 0.371  |          |
|         |                        |              |            |            | Front         | 661   | 1880.0      | 25.50         | 25.25 | 0.249          | 0.264  | 0.124           | 0.131  |          |
|         | Hotspot                | GPRS 2 Slots | Mode B     | 5          | Edge 1        | 661   | 1880.0      | 25.50         | 25.25 | 0.300          | 0.318  | 0.120           | 0.127  |          |
|         |                        |              |            |            | Edge 2        | 661   | 1880.0      | 25.50         | 25.25 | 0.016          | 0.017  | 0.008           | 0.009  |          |
|         |                        |              |            |            | Edge 4        | 661   | 1880.0      | 25.50         | 25.25 | 0.207          | 0.219  | 0.108           | 0.114  |          |
| Antenna | RF Exposure Conditions | Mode         | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|         |                        |              |            |            |               |       |             | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT3    | Head                   | GPRS 2 Slots | Mode A     | 0          | Left Touch    | 661   | 1880.0      | 31.00         | 30.84 | 0.189          | 0.196  | 0.118           | 0.122  | 11       |
|         |                        |              |            |            | Left Tilt     | 661   | 1880.0      | 31.00         | 30.84 | 0.081          | 0.084  | 0.049           | 0.051  |          |
|         |                        |              |            |            | Right Touch   | 661   | 1880.0      | 31.00         | 30.84 | 0.112          | 0.116  | 0.071           | 0.074  |          |
|         |                        |              |            |            | Right Tilt    | 661   | 1880.0      | 31.00         | 30.84 | 0.075          | 0.078  | 0.042           | 0.044  |          |
|         | Body & Hotspot         | GPRS 2 Slots | Mode B     | 5          | Rear          | 512   | 1850.2      | 25.75         | 25.60 | 0.899          | 0.931  | 0.443           | 0.459  | 12       |
|         |                        |              |            |            |               | 661   | 1880.0      | 25.75         | 25.50 | 0.929          | 0.984  | 0.455           | 0.482  |          |
|         |                        |              |            |            |               | 810   | 1909.8      | 25.75         | 25.50 | 0.896          | 0.949  | 0.444           | 0.470  |          |
|         |                        |              |            |            | Front         | 661   | 1880.0      | 25.75         | 25.50 | 0.342          | 0.362  | 0.185           | 0.196  |          |
|         | Hotspot                | GPRS 2 Slots | Mode B     | 5          | Edge 3        | 661   | 1880.0      | 25.75         | 25.50 | 0.246          | 0.261  | 0.131           | 0.139  |          |
|         |                        |              |            |            | Edge 4        | 661   | 1880.0      | 25.75         | 25.50 | 0.042          | 0.044  | 0.024           | 0.025  |          |
| Antenna | RF Exposure Conditions | Mode         | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|         |                        |              |            |            |               |       |             | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT4    | Head                   | GPRS 2 Slots | Mode A     | 0          | Left Touch    | 512   | 1850.2      | 25.00         | 24.65 | 0.814          | 0.882  | 0.399           | 0.432  | 13       |
|         |                        |              |            |            |               | 661   | 1880.0      | 25.00         | 24.71 | 0.826          | 0.883  | 0.407           | 0.435  |          |
|         |                        |              |            |            |               | 810   | 1909.8      | 25.00         | 24.62 | 0.798          | 0.871  | 0.395           | 0.431  |          |
|         |                        |              |            |            | Left Tilt     | 661   | 1880.0      | 25.00         | 24.71 | 0.448          | 0.479  | 0.216           | 0.231  |          |
|         |                        |              |            |            | Right Touch   | 661   | 1880.0      | 25.00         | 24.71 | 0.184          | 0.197  | 0.110           | 0.118  |          |
|         |                        |              |            |            | Right Tilt    | 661   | 1880.0      | 25.00         | 24.71 | 0.151          | 0.161  | 0.081           | 0.087  |          |
|         | Body & Hotspot         | GPRS 2 Slots | Mode B     | 5          | Rear          | 661   | 1880.0      | 26.00         | 25.60 | 0.585          | 0.641  | 0.287           | 0.315  | 14       |
|         |                        |              |            |            | Front         | 661   | 1880.0      | 26.00         | 25.60 | 0.410          | 0.450  | 0.209           | 0.229  |          |
|         |                        |              |            |            | Edge 1        | 661   | 1880.0      | 26.00         | 25.60 | 0.284          | 0.311  | 0.135           | 0.148  |          |
|         | Hotspot                | GPRS 2 Slots | Mode B     | 5          | Edge 2        | 512   | 1850.2      | 26.00         | 25.60 | 0.755          | 0.828  | 0.355           | 0.389  |          |
|         |                        |              |            |            |               | 661   | 1880.0      | 26.00         | 25.60 | 0.749          | 0.821  | 0.356           | 0.390  |          |
|         |                        |              |            |            |               | 810   | 1909.8      | 26.00         | 25.70 | 0.837          | 0.897  | 0.390           | 0.418  |          |

**10.3. W-CDMA Band II**

| Antenna | RF Exposure Conditions | Mode                 | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|------------------------|----------------------|------------|------------|---------------|-------|-------------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |                        |                      |            |            |               |       |             | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT1    | Head                   | Rel 99 RMC 12.2 kbps | Mode A     | 0          | Left Touch    | 9400  | 1880.0      | 25.70         | 25.56 | 0.200          | 0.207  | 0.131           | 0.135  | 16       |
|         |                        |                      |            |            | Left Tilt     | 9400  | 1880.0      | 25.70         | 25.56 | 0.180          | 0.186  | 0.107           | 0.111  |          |
|         |                        |                      |            |            | Right Touch   | 9400  | 1880.0      | 25.70         | 25.56 | 0.494          | 0.510  | 0.300           | 0.310  |          |
|         |                        |                      |            |            | Right Tilt    | 9400  | 1880.0      | 25.70         | 25.56 | 0.170          | 0.176  | 0.104           | 0.107  |          |
|         | Body & Hotspot         | Rel 99 RMC 12.2 kbps | Mode B     | 5          | Rear          | 9262  | 1852.4      | 21.75         | 21.75 | 0.895          | 0.895  | 0.431           | 0.431  | 17       |
|         |                        |                      |            |            |               | 9400  | 1880.0      | 21.75         | 21.60 | 0.891          | 0.922  | 0.427           | 0.442  |          |
|         |                        |                      |            |            |               | 9538  | 1907.6      | 21.75         | 21.60 | 0.888          | 0.919  | 0.409           | 0.423  |          |
|         |                        |                      |            |            | Front         | 9400  | 1880.0      | 21.75         | 21.60 | 0.527          | 0.546  | 0.281           | 0.291  |          |
|         | Hotspot                | Rel 99 RMC 12.2 kbps | Mode B     | 5          | Edge 2        | 9262  | 1852.4      | 21.75         | 21.75 | 0.840          | 0.840  | 0.390           | 0.390  | 18       |
|         |                        |                      |            |            |               | 9400  | 1880.0      | 21.75         | 21.60 | 0.842          | 0.872  | 0.386           | 0.400  |          |
|         |                        |                      |            |            |               | 9538  | 1907.6      | 21.75         | 21.60 | 0.915          | 0.947  | 0.406           | 0.420  |          |
|         |                        |                      |            |            | Edge 3        | 9400  | 1880.0      | 21.75         | 21.60 | 0.631          | 0.653  | 0.289           | 0.299  |          |
|         |                        |                      |            |            | Edge 4        | 9400  | 1880.0      | 21.75         | 21.60 | 0.049          | 0.051  | 0.026           | 0.026  |          |
| Antenna | RF Exposure Conditions | Mode                 | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|         |                        |                      |            |            |               |       |             | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT2    | Head                   | Rel 99 RMC 12.2 kbps | Mode A     | 0          | Left Touch    | 9400  | 1880.0      | 20.50         | 20.50 | 0.243          | 0.243  | 0.150           | 0.150  | 19       |
|         |                        |                      |            |            | Left Tilt     | 9400  | 1880.0      | 20.50         | 20.50 | 0.244          | 0.244  | 0.120           | 0.120  |          |
|         |                        |                      |            |            | Right Touch   | 9262  | 1852.4      | 20.50         | 20.50 | 0.890          | 0.890  | 0.456           | 0.456  |          |
|         |                        |                      |            |            |               | 9400  | 1880.0      | 20.50         | 20.50 | 0.865          | 0.865  | 0.455           | 0.455  |          |
|         |                        |                      |            |            |               | 9538  | 1907.6      | 20.50         | 20.50 | 0.775          | 0.775  | 0.399           | 0.399  |          |
|         |                        |                      |            |            | Right Tilt    | 9262  | 1852.4      | 20.50         | 20.50 | 0.834          | 0.834  | 0.383           | 0.383  |          |
|         |                        |                      |            |            |               | 9400  | 1880.0      | 20.50         | 20.50 | 0.818          | 0.818  | 0.373           | 0.373  |          |
|         |                        |                      |            |            |               | 9538  | 1907.6      | 20.50         | 20.50 | 0.613          | 0.613  | 0.284           | 0.284  |          |
|         | Body & Hotspot         | Rel 99 RMC 12.2 kbps | Mode B     | 5          | Rear          | 9262  | 1852.4      | 18.50         | 18.25 | 0.777          | 0.823  | 0.344           | 0.364  | 20       |
|         |                        |                      |            |            |               | 9400  | 1880.0      | 18.50         | 18.40 | 0.871          | 0.891  | 0.376           | 0.385  |          |
|         |                        |                      |            |            |               | 9538  | 1907.6      | 18.50         | 18.25 | 0.797          | 0.844  | 0.344           | 0.364  |          |
|         |                        |                      |            |            | Front         | 9400  | 1880.0      | 18.50         | 18.40 | 0.334          | 0.342  | 0.160           | 0.164  |          |
|         | Hotspot                | Rel 99 RMC 12.2 kbps | Mode B     | 5          | Edge 1        | 9400  | 1880.0      | 18.50         | 18.40 | 0.303          | 0.310  | 0.123           | 0.126  |          |
|         |                        |                      |            |            | Edge 2        | 9400  | 1880.0      | 18.50         | 18.40 | 0.025          | 0.026  | 0.013           | 0.013  |          |
|         |                        |                      |            |            | Edge 4        | 9400  | 1880.0      | 18.50         | 18.40 | 0.244          | 0.250  | 0.131           | 0.134  |          |
| Antenna | RF Exposure Conditions | Mode                 | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|         |                        |                      |            |            |               |       |             | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT3    | Head                   | Rel 99 RMC 12.2 kbps | Mode A     | 0          | Left Touch    | 9400  | 1880.0      | 25.00         | 24.60 | 0.430          | 0.471  | 0.264           | 0.289  | 21       |
|         |                        |                      |            |            | Left Tilt     | 9400  | 1880.0      | 25.00         | 24.60 | 0.233          | 0.255  | 0.134           | 0.147  |          |
|         |                        |                      |            |            | Right Touch   | 9400  | 1880.0      | 25.00         | 24.60 | 0.260          | 0.285  | 0.162           | 0.178  |          |
|         |                        |                      |            |            | Right Tilt    | 9400  | 1880.0      | 25.00         | 24.60 | 0.237          | 0.260  | 0.130           | 0.143  |          |
|         | Body & Hotspot         | Rel 99 RMC 12.2 kbps | Mode B     | 5          | Rear          | 9262  | 1852.4      | 19.75         | 19.70 | 0.957          | 0.968  | 0.467           | 0.472  | 22       |
|         |                        |                      |            |            |               | 9400  | 1880.0      | 19.75         | 19.70 | 0.968          | 0.979  | 0.463           | 0.468  |          |
|         |                        |                      |            |            |               | 9538  | 1907.6      | 19.75         | 19.60 | 0.958          | 0.992  | 0.450           | 0.466  |          |
|         |                        |                      |            |            | Front         | 9400  | 1880.0      | 19.75         | 19.70 | 0.460          | 0.465  | 0.247           | 0.250  |          |
|         | Hotspot                | Rel 99 RMC 12.2 kbps | Mode B     | 5          | Edge 3        | 9400  | 1880.0      | 19.75         | 19.70 | 0.341          | 0.345  | 0.180           | 0.182  |          |
|         |                        |                      |            |            | Edge 4        | 9400  | 1880.0      | 19.75         | 19.70 | 0.513          | 0.519  | 0.264           | 0.267  |          |
| Antenna | RF Exposure Conditions | Mode                 | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|         |                        |                      |            |            |               |       |             | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT4    | Head                   | Rel 99 RMC 12.2 kbps | Mode A     | 0          | Left Touch    | 9262  | 1852.4      | 18.75         | 18.60 | 0.778          | 0.805  | 0.403           | 0.417  | 23       |
|         |                        |                      |            |            |               | 9400  | 1880.0      | 18.75         | 18.70 | 0.795          | 0.804  | 0.389           | 0.394  |          |
|         |                        |                      |            |            |               | 9538  | 1907.6      | 18.75         | 18.75 | 0.894          | 0.894  | 0.450           | 0.450  |          |
|         |                        |                      |            |            | Left Tilt     | 9400  | 1880.0      | 18.75         | 18.40 | 0.449          | 0.487  | 0.218           | 0.236  |          |
|         |                        |                      |            |            | Right Touch   | 9400  | 1880.0      | 18.75         | 18.40 | 0.214          | 0.232  | 0.125           | 0.135  |          |
|         |                        |                      |            |            | Right Tilt    | 9400  | 1880.0      | 18.75         | 18.40 | 0.185          | 0.201  | 0.099           | 0.107  |          |
|         | Body & Hotspot         | Rel 99 RMC 12.2 kbps | Mode B     | 5          | Rear          | 9400  | 1880.0      | 20.00         | 20.00 | 0.640          | 0.640  | 0.314           | 0.314  | 24       |
|         |                        |                      |            |            | Front         | 9400  | 1880.0      | 20.00         | 20.00 | 0.438          | 0.438  | 0.225           | 0.225  |          |
|         | Hotspot                | Rel 99 RMC 12.2 kbps | Mode B     | 5          | Edge 1        | 9400  | 1880.0      | 20.00         | 20.00 | 0.378          | 0.378  | 0.174           | 0.174  | 25       |
|         |                        |                      |            |            | Edge 2        | 9262  | 1852.4      | 20.00         | 19.90 | 0.844          | 0.864  | 0.377           | 0.386  |          |
|         |                        |                      |            |            |               | 9400  | 1880.0      | 20.00         | 20.00 | 0.886          | 0.886  | 0.397           | 0.397  |          |
|         |                        |                      |            |            |               | 9538  | 1907.6      | 20.00         | 20.00 | 0.839          | 0.839  | 0.376           | 0.376  |          |

**10.4. W-CDMA Band IV**

| Antenna | RF Exposure Conditions | Mode                    | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|------------------------|-------------------------|------------|------------|---------------|-------|-------------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |                        |                         |            |            |               |       |             | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT1    | Head                   | Rel 99 RMC<br>12.2 kbps | Mode A     | 0          | Left Touch    | 1413  | 1732.6      | 25.70         | 25.61 | 0.118          | 0.120  | 0.079           | 0.081  | 26       |
|         |                        |                         |            |            | Left Tilt     | 1413  | 1732.6      | 25.70         | 25.61 | 0.138          | 0.141  | 0.085           | 0.087  |          |
|         |                        |                         |            |            | Right Touch   | 1413  | 1732.6      | 25.70         | 25.61 | 0.256          | 0.261  | 0.164           | 0.167  |          |
|         |                        |                         |            |            | Right Tilt    | 1413  | 1732.6      | 25.70         | 25.61 | 0.117          | 0.119  | 0.078           | 0.080  |          |
|         | Body & Hotspot         | Rel 99 RMC<br>12.2 kbps | Mode B     | 5          | Rear          | 1413  | 1732.6      | 18.00         | 18.00 | 0.333          | 0.333  | 0.174           | 0.174  | 27       |
|         |                        |                         |            |            | Front         | 1413  | 1732.6      | 18.00         | 18.00 | 0.246          | 0.246  | 0.126           | 0.126  |          |
|         | Hotspot                | Rel 99 RMC<br>12.2 kbps | Mode B     | 5          | Edge 2        | 1413  | 1732.6      | 18.00         | 18.00 | 0.137          | 0.137  | 0.008           | 0.008  | 28       |
|         |                        |                         |            |            | Edge 3        | 1312  | 1712.4      | 18.00         | 18.00 | 0.943          | 0.943  | 0.436           | 0.436  |          |
|         |                        |                         |            |            |               | 1413  | 1732.6      | 18.00         | 18.00 | 0.931          | 0.931  | 0.429           | 0.429  |          |
|         |                        |                         |            |            | Edge 4        | 1413  | 1732.6      | 18.00         | 18.00 | 0.020          | 0.020  | 0.010           | 0.010  |          |
| Antenna | RF Exposure Conditions | Mode                    | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|         |                        |                         |            |            |               |       |             | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT2    | Head                   | Rel 99 RMC<br>12.2 kbps | Mode A     | 0          | Left Touch    | 1413  | 1732.6      | 22.00         | 21.55 | 0.315          | 0.349  | 0.162           | 0.180  | 29       |
|         |                        |                         |            |            | Left Tilt     | 1413  | 1732.6      | 22.00         | 21.55 | 0.353          | 0.392  | 0.175           | 0.194  |          |
|         |                        |                         |            |            | Right Touch   | 1312  | 1712.4      | 22.00         | 21.65 | 0.756          | 0.819  | 0.379           | 0.411  |          |
|         |                        |                         |            |            |               | 1413  | 1732.6      | 22.00         | 21.55 | 0.732          | 0.812  | 0.357           | 0.396  |          |
|         |                        |                         |            |            |               | 1513  | 1752.6      | 22.00         | 21.65 | 0.775          | 0.840  | 0.383           | 0.415  |          |
|         |                        |                         |            |            | Right Tilt    | 1413  | 1732.6      | 22.00         | 21.55 | 0.692          | 0.768  | 0.316           | 0.350  |          |
|         | Body & Hotspot         | Rel 99 RMC<br>12.2 kbps | Mode B     | 5          | Rear          | 1413  | 1732.6      | 20.00         | 19.80 | 0.719          | 0.753  | 0.330           | 0.346  | 30       |
|         |                        |                         |            |            | Front         | 1413  | 1732.6      | 20.00         | 19.80 | 0.334          | 0.350  | 0.166           | 0.174  |          |
|         | Hotspot                | Rel 99 RMC<br>12.2 kbps | Mode B     | 5          | Edge 1        | 1312  | 1712.4      | 20.00         | 20.00 | 0.890          | 0.890  | 0.404           | 0.404  | 31       |
|         |                        |                         |            |            |               | 1413  | 1732.6      | 20.00         | 19.80 | 0.846          | 0.886  | 0.371           | 0.388  |          |
|         |                        |                         |            |            | Edge 2        | 1513  | 1752.6      | 20.00         | 19.70 | 0.712          | 0.763  | 0.319           | 0.342  |          |
|         |                        |                         |            |            |               | 1413  | 1732.6      | 20.00         | 19.80 | 0.003          | 0.003  | 0.004           | 0.004  |          |
|         |                        |                         |            |            | Edge 4        | 1413  | 1732.6      | 20.00         | 19.80 | 0.275          | 0.288  | 0.153           | 0.160  |          |
| Antenna | RF Exposure Conditions | Mode                    | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|         |                        |                         |            |            |               |       |             | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT3    | Head                   | Rel 99 RMC<br>12.2 kbps | Mode A     | 0          | Left Touch    | 1413  | 1732.6      | 25.00         | 24.78 | 0.284          | 0.299  | 0.183           | 0.193  | 32       |
|         |                        |                         |            |            | Left Tilt     | 1413  | 1732.6      | 25.00         | 24.78 | 0.194          | 0.204  | 0.120           | 0.126  |          |
|         |                        |                         |            |            | Right Touch   | 1413  | 1732.6      | 25.00         | 24.78 | 0.167          | 0.176  | 0.108           | 0.114  |          |
|         |                        |                         |            |            | Right Tilt    | 1413  | 1732.6      | 25.00         | 24.78 | 0.125          | 0.132  | 0.077           | 0.081  |          |
|         | Body & Hotspot         | Rel 99 RMC<br>12.2 kbps | Mode B     | 5          | Rear          | 1312  | 1712.4      | 21.75         | 21.50 | 0.859          | 0.910  | 0.448           | 0.475  | 33       |
|         |                        |                         |            |            |               | 1413  | 1732.6      | 21.75         | 21.70 | 0.963          | 0.974  | 0.497           | 0.503  |          |
|         |                        |                         |            |            | Front         | 1413  | 1732.6      | 21.75         | 21.70 | 0.600          | 0.607  | 0.337           | 0.341  |          |
|         | Hotspot                | Rel 99 RMC<br>12.2 kbps | Mode B     | 5          | Edge 3        | 1413  | 1732.6      | 21.75         | 21.70 | 0.261          | 0.264  | 0.133           | 0.135  | 34       |
|         |                        |                         |            |            | Edge 4        | 1413  | 1732.6      | 21.75         | 21.70 | 0.518          | 0.524  | 0.284           | 0.287  |          |
|         |                        |                         |            |            |               | 1413  | 1732.6      | 21.75         | 21.70 | 0.518          | 0.524  | 0.284           | 0.287  |          |
| Antenna | RF Exposure Conditions | Mode                    | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|         |                        |                         |            |            |               |       |             | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT4    | Head                   | Rel 99 RMC<br>12.2 kbps | Mode A     | 0          | Left Touch    | 1312  | 1712.4      | 21.00         | 20.65 | 0.718          | 0.778  | 0.361           | 0.391  | 34       |
|         |                        |                         |            |            |               | 1413  | 1732.6      | 21.00         | 20.75 | 0.840          | 0.890  | 0.418           | 0.443  |          |
|         |                        |                         |            |            |               | 1513  | 1752.6      | 21.00         | 20.95 | 0.845          | 0.855  | 0.438           | 0.443  |          |
|         |                        |                         |            |            | Left Tilt     | 1413  | 1732.6      | 21.00         | 20.75 | 0.593          | 0.628  | 0.283           | 0.300  |          |
|         |                        |                         |            |            | Right Touch   | 1413  | 1732.6      | 21.00         | 20.75 | 0.270          | 0.286  | 0.148           | 0.157  |          |
|         |                        |                         |            |            | RightTilt     | 1413  | 1732.6      | 21.00         | 20.75 | 0.251          | 0.266  | 0.136           | 0.144  |          |
|         | Body & Hotspot         | Rel 99 RMC<br>12.2 kbps | Mode B     | 5          | Rear          | 1413  | 1732.6      | 22.25         | 21.95 | 0.589          | 0.631  | 0.293           | 0.314  | 35       |
|         |                        |                         |            |            | Front         | 1413  | 1732.6      | 22.25         | 21.95 | 0.382          | 0.409  | 0.198           | 0.212  |          |
|         | Hotspot                | Rel 99 RMC<br>12.2 kbps | Mode B     | 5          | Edge 1        | 1413  | 1732.6      | 22.25         | 21.95 | 0.375          | 0.402  | 0.174           | 0.186  | 36       |
|         |                        |                         |            |            |               | 1312  | 1712.4      | 22.25         | 21.85 | 0.569          | 0.624  | 0.276           | 0.303  |          |
|         |                        |                         |            |            | Edge 2        | 1413  | 1732.6      | 22.25         | 21.95 | 0.827          | 0.886  | 0.390           | 0.418  |          |
|         |                        |                         |            |            |               | 1513  | 1752.6      | 22.25         | 22.05 | 0.720          | 0.754  | 0.346           | 0.362  |          |

## 10.5. W-CDMA Band V

| Antenna | RF Exposure Conditions | Mode                 | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|------------------------|----------------------|------------|------------|---------------|-------|-------------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |                        |                      |            |            |               |       |             | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT1    | Head                   | Rel 99 RMC 12.2 kbps | Mode A     | 0          | Left Touch    | 4183  | 836.6       | 25.70         | 25.20 | 0.243          | 0.273  | 0.190           | 0.213  | 37       |
|         |                        |                      |            |            | Left Tilt     | 4183  | 836.6       | 25.70         | 25.20 | 0.138          | 0.155  | 0.107           | 0.120  |          |
|         |                        |                      |            |            | Right Touch   | 4183  | 836.6       | 25.70         | 25.20 | 0.244          | 0.274  | 0.192           | 0.215  |          |
|         |                        |                      |            |            | RightTilt     | 4183  | 836.6       | 25.70         | 25.20 | 0.126          | 0.141  | 0.097           | 0.109  |          |
|         | Body & Hotspot         | Rel 99 RMC 12.2 kbps | Mode B     | 5          | Rear          | 4183  | 836.6       | 25.70         | 25.20 | 0.506          | 0.568  | 0.312           | 0.350  | 38       |
|         |                        |                      |            |            | Front         | 4183  | 836.6       | 25.70         | 25.20 | 0.347          | 0.389  | 0.226           | 0.254  |          |
|         | Hotspot                | Rel 99 RMC 12.2 kbps | Mode B     | 5          | Edge 2        | 4183  | 836.6       | 25.70         | 25.20 | 0.513          | 0.576  | 0.331           | 0.371  | 39       |
|         |                        |                      |            |            | Edge 3        | 4183  | 836.6       | 25.70         | 25.20 | 0.168          | 0.188  | 0.087           | 0.098  |          |
|         |                        |                      |            |            | Edge 4        | 4183  | 836.6       | 25.70         | 25.20 | 0.248          | 0.278  | 0.116           | 0.130  |          |
| Antenna | RF Exposure Conditions | Mode                 | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|         |                        |                      |            |            |               |       |             | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT2    | Head                   | Rel 99 RMC 12.2 kbps | Mode A     | 0          | Left Touch    | 4183  | 836.6       | 24.50         | 24.11 | 0.425          | 0.465  | 0.314           | 0.344  | 40       |
|         |                        |                      |            |            | Left Tilt     | 4183  | 836.6       | 24.50         | 24.11 | 0.268          | 0.293  | 0.166           | 0.182  |          |
|         |                        |                      |            |            | Right Touch   | 4183  | 836.6       | 24.50         | 24.11 | 0.580          | 0.634  | 0.396           | 0.433  |          |
|         |                        |                      |            |            | Right Tilt    | 4183  | 836.6       | 24.50         | 24.11 | 0.353          | 0.386  | 0.200           | 0.219  |          |
|         | Body & Hotspot         | Rel 99 RMC 12.2 kbps | Mode B     | 5          | Rear          | 4183  | 836.6       | 24.50         | 24.11 | 0.423          | 0.463  | 0.248           | 0.271  | 41       |
|         |                        |                      |            |            | Front         | 4183  | 836.6       | 24.50         | 24.11 | 0.220          | 0.241  | 0.141           | 0.154  |          |
|         | Hotspot                | Rel 99 RMC 12.2 kbps | Mode B     | 5          | Edge 1        | 4183  | 836.6       | 24.50         | 24.11 | 0.107          | 0.117  | 0.060           | 0.066  |          |
|         |                        |                      |            |            | Edge 2        | 4183  | 836.6       | 24.50         | 24.11 | 0.167          | 0.183  | 0.109           | 0.119  |          |
|         |                        |                      |            |            | Edge 4        | 4183  | 836.6       | 24.50         | 24.11 | 0.230          | 0.252  | 0.149           | 0.163  |          |

## 10.6. CDMA BC0

| Antenna | RF Exposure Conditions | Mode           | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|------------------------|----------------|------------|------------|---------------|-------|-------------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |                        |                |            |            |               |       |             | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT1    | Head                   | 1xRTT RC3 SO55 | Mode A     | 0          | Left Touch    | 384   | 836.5       | 25.70         | 25.50 | 0.256          | 0.268  | 0.194           | 0.203  | 42       |
|         |                        |                |            |            | Left Tilt     | 384   | 836.5       | 25.70         | 25.50 | 0.130          | 0.136  | 0.100           | 0.105  |          |
|         |                        |                |            |            | Right Touch   | 384   | 836.5       | 25.70         | 25.50 | 0.292          | 0.306  | 0.217           | 0.227  |          |
|         |                        |                |            |            | Right Tilt    | 384   | 836.5       | 25.70         | 25.50 | 0.157          | 0.164  | 0.119           | 0.125  |          |
|         |                        | 1xEVDO Rel. 0  | Mode A     | 0          | Left Touch    | 384   | 836.5       | 25.70         | 25.50 | 0.226          | 0.237  | 0.171           | 0.179  |          |
|         |                        |                |            |            | Left Tilt     | 384   | 836.5       | 25.70         | 25.50 | 0.151          | 0.158  | 0.115           | 0.120  |          |
|         |                        |                |            |            | Right Touch   | 384   | 836.5       | 25.70         | 25.50 | 0.244          | 0.255  | 0.184           | 0.193  |          |
|         |                        |                |            |            | Right Tilt    | 384   | 836.5       | 25.70         | 25.50 | 0.148          | 0.155  | 0.112           | 0.117  |          |
|         | Body & Hotspot         | 1xRTT RC3 SO32 | Mode B     | 5          | Rear          | 384   | 836.5       | 25.70         | 25.50 | 0.630          | 0.660  | 0.383           | 0.401  | 43       |
|         |                        |                |            |            | Front         | 384   | 836.5       | 25.70         | 25.50 | 0.331          | 0.347  | 0.212           | 0.222  |          |
|         | Hotspot                | 1xRTT RC3 SO32 | Mode B     | 5          | Edge 2        | 384   | 836.5       | 25.70         | 25.50 | 0.748          | 0.783  | 0.478           | 0.501  |          |
|         |                        |                |            |            | Edge 3        | 384   | 836.5       | 25.70         | 25.50 | 0.171          | 0.179  | 0.094           | 0.098  |          |
|         |                        |                |            |            | Edge 4        | 384   | 836.5       | 25.70         | 25.50 | 0.403          | 0.422  | 0.257           | 0.269  |          |
| Antenna | RF Exposure Conditions | Mode           | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|         |                        |                |            |            |               |       |             | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT2    | Head                   | 1xRTT RC3 SO55 | Mode A     | 0          | Left Touch    | 384   | 836.5       | 24.50         | 24.30 | 0.500          | 0.524  | 0.366           | 0.383  |          |
|         |                        |                |            |            | Left Tilt     | 384   | 836.5       | 24.50         | 24.30 | 0.285          | 0.298  | 0.178           | 0.186  |          |
|         |                        |                |            |            | Right Touch   | 384   | 836.5       | 24.50         | 24.30 | 0.541          | 0.566  | 0.363           | 0.380  |          |
|         |                        |                |            |            | Right Tilt    | 384   | 836.5       | 24.50         | 24.30 | 0.416          | 0.436  | 0.227           | 0.238  |          |
|         |                        | 1xEVDO Rel. 0  | Mode A     | 0          | Left Touch    | 384   | 836.5       | 24.50         | 24.30 | 0.436          | 0.457  | 0.315           | 0.330  |          |
|         |                        |                |            |            | Left Tilt     | 384   | 836.5       | 24.50         | 24.30 | 0.262          | 0.274  | 0.174           | 0.182  |          |
|         |                        |                |            |            | Right Touch   | 384   | 836.5       | 24.50         | 24.30 | 0.588          | 0.616  | 0.387           | 0.405  |          |
|         |                        |                |            |            | Right Tilt    | 384   | 836.5       | 24.50         | 24.30 | 0.406          | 0.425  | 0.229           | 0.240  |          |
|         | Body & Hotspot         | 1xRTT RC3 SO32 | Mode B     | 5          | Rear          | 384   | 836.5       | 24.50         | 24.30 | 0.364          | 0.381  | 0.212           | 0.222  | 45       |
|         |                        |                |            |            | Front         | 384   | 836.5       | 24.50         | 24.30 | 0.244          | 0.255  | 0.157           | 0.164  |          |
|         | Hotspot                | 1xRTT RC3 SO32 | Mode B     | 5          | Edge 1        | 384   | 836.5       | 24.50         | 24.30 | 0.060          | 0.063  | 0.035           | 0.037  |          |
|         |                        |                |            |            | Edge 2        | 384   | 836.5       | 24.50         | 24.30 | 0.269          | 0.282  | 0.172           | 0.180  |          |
|         |                        |                |            |            | Edge 4        | 384   | 836.5       | 24.50         | 24.30 | 0.370          | 0.387  | 0.240           | 0.251  | 46       |

**10.7. CDMA BC1**

| Antenna | RF Exposure Conditions | Mode           | Power Mode     | Dist. (mm) | Test Position | Ch #.          | Freq. (MHz) | Power (dBm)   |        | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |       |       |       |  |
|---------|------------------------|----------------|----------------|------------|---------------|----------------|-------------|---------------|--------|----------------|--------|-----------------|--------|----------|-------|-------|-------|--|
|         |                        |                |                |            |               |                |             | Tune-up Limit | Meas.  | Meas.          | Scaled | Meas.           | Scaled |          |       |       |       |  |
| ANT1    | Head                   | 1xRTT RC3 SO55 | Mode A         | 0          | Left Touch    | 600            | 1880.0      | 25.70         | 25.50  | 0.209          | 0.219  | 0.135           | 0.141  |          |       |       |       |  |
|         |                        |                |                |            | Left Tilt     | 600            | 1880.0      | 25.70         | 25.50  | 0.200          | 0.209  | 0.118           | 0.124  |          |       |       |       |  |
|         |                        |                |                |            | Right Touch   | 600            | 1880.0      | 25.70         | 25.50  | 0.412          | 0.431  | 0.259           | 0.271  |          |       |       |       |  |
|         |                        |                |                |            | Right Tilt    | 600            | 1880.0      | 25.70         | 25.50  | 0.181          | 0.190  | 0.115           | 0.120  |          |       |       |       |  |
|         |                        | 1xEVDO Rel. 0  | Mode A         | 0          | Left Touch    | 600            | 1880.0      | 25.70         | 25.50  | 0.232          | 0.243  | 0.151           | 0.158  |          |       |       |       |  |
|         |                        |                |                |            | Left Tilt     | 600            | 1880.0      | 25.70         | 25.50  | 0.203          | 0.213  | 0.123           | 0.129  |          |       |       |       |  |
|         |                        |                |                |            | Right Touch   | 600            | 1880.0      | 25.70         | 25.50  | 0.580          | 0.607  | 0.352           | 0.369  | 47       |       |       |       |  |
|         |                        |                |                |            | Right Tilt    | 600            | 1880.0      | 25.70         | 25.50  | 0.200          | 0.209  | 0.126           | 0.132  |          |       |       |       |  |
|         | Body & Hotspot         | 1xRTT RC3 SO32 | Mode B         | 5          | Rear          | 25             | 1851.3      | 21.75         | 21.47  | 0.861          | 0.918  | 0.441           | 0.470  |          |       |       |       |  |
|         |                        |                |                |            |               | 600            | 1880.0      | 21.75         | 21.42  | 0.865          | 0.933  | 0.442           | 0.477  |          |       |       |       |  |
|         |                        |                |                |            |               | 1175           | 1908.8      | 21.75         | 21.42  | 0.871          | 0.940  | 0.445           | 0.480  | 48       |       |       |       |  |
|         |                        |                |                |            | Front         | 600            | 1880.0      | 21.75         | 21.42  | 0.556          | 0.600  | 0.302           | 0.326  |          |       |       |       |  |
|         | Hotspot                | 1xRTT RC3 SO32 | Mode B         | 5          | Edge 2        | 25             | 1851.3      | 21.75         | 21.47  | 0.814          | 0.868  | 0.377           | 0.402  |          |       |       |       |  |
|         |                        |                |                |            |               | 600            | 1880.0      | 21.75         | 21.42  | 0.857          | 0.925  | 0.406           | 0.438  |          |       |       |       |  |
|         |                        |                |                |            |               | 1175           | 1908.8      | 21.75         | 21.42  | 0.911          | 0.983  | 0.427           | 0.461  | 49       |       |       |       |  |
|         |                        |                |                |            | Edge 3        | 600            | 1880.0      | 21.75         | 21.42  | 0.579          | 0.625  | 0.274           | 0.296  |          |       |       |       |  |
|         |                        |                |                |            | Edge 4        | 600            | 1880.0      | 21.75         | 21.42  | 0.066          | 0.072  | 0.035           | 0.038  |          |       |       |       |  |
| ANT2    | Head                   | 1xRTT RC3 SO55 | Mode A         | 0          | Left Touch    | 600            | 1880.0      | 20.50         | 20.30  | 0.267          | 0.280  | 0.156           | 0.163  |          |       |       |       |  |
|         |                        |                |                |            | Left Tilt     | 600            | 1880.0      | 20.50         | 20.30  | 0.297          | 0.311  | 0.157           | 0.164  |          |       |       |       |  |
|         |                        |                |                |            | Right Touch   | 600            | 1880.0      | 20.50         | 20.30  | 0.637          | 0.667  | 0.345           | 0.361  |          |       |       |       |  |
|         |                        |                |                |            | Right Tilt    | 25             | 1851.3      | 20.50         | 20.30  | 0.844          | 0.884  | 0.391           | 0.409  | 50       |       |       |       |  |
|         |                        |                |                |            |               | 600            | 1880.0      | 20.50         | 20.30  | 0.768          | 0.804  | 0.347           | 0.363  |          |       |       |       |  |
|         |                        |                |                |            |               | 1175           | 1908.8      | 20.50         | 20.30  | 0.597          | 0.625  | 0.279           | 0.292  |          |       |       |       |  |
|         |                        |                |                |            | 1xEVDO Rel. 0 | Mode A         | 0           | Left Touch    | 600    | 1880.0         | 20.50  | 20.30           | 0.220  | 0.230    | 0.134 | 0.140 |       |  |
|         |                        |                |                |            |               |                |             | Left Tilt     | 600    | 1880.0         | 20.50  | 20.30           | 0.212  | 0.222    | 0.109 | 0.114 |       |  |
|         |                        | Right Touch    | 600            | 1880.0     |               |                |             | 20.50         | 20.30  | 0.578          | 0.605  | 0.302           | 0.316  |          |       |       |       |  |
|         |                        | Right Tilt     | 25             | 1851.3     |               |                |             | 20.50         | 20.30  | 0.817          | 0.856  | 0.369           | 0.386  | 51       |       |       |       |  |
|         |                        |                | 600            | 1880.0     |               |                |             | 20.50         | 20.30  | 0.774          | 0.810  | 0.343           | 0.359  |          |       |       |       |  |
|         |                        |                | 1175           | 1908.8     |               |                |             | 20.50         | 20.30  | 0.604          | 0.632  | 0.267           | 0.280  |          |       |       |       |  |
|         |                        | Body & Hotspot | 1xRTT RC3 SO32 | Mode B     | 5             | Rear           | 25          | 1851.3        | 18.50  | 18.50          | 0.841  | 0.841           | 0.384  | 0.384    |       |       |       |  |
|         |                        |                |                |            |               |                | 600         | 1880.0        | 18.50  | 18.40          | 0.792  | 0.810           | 0.362  | 0.370    |       |       |       |  |
|         | 1175                   |                |                |            |               |                | 1908.8      | 18.50         | 18.50  | 0.885          | 0.885  | 0.410           | 0.410  | 52       |       |       |       |  |
|         | Front                  |                |                |            |               | 600            | 1880.0      | 18.50         | 18.40  | 0.336          | 0.344  | 0.172           | 0.176  |          |       |       |       |  |
|         | Hotspot                |                |                |            |               | 1xRTT RC3 SO32 | Mode B      | 5             | Edge 1 | 600            | 1880.0 | 18.50           | 18.40  | 0.375    | 0.384 | 0.158 | 0.162 |  |
|         |                        |                |                |            |               |                |             |               | Edge 2 | 600            | 1880.0 | 18.50           | 18.40  | 0.033    | 0.034 | 0.016 | 0.016 |  |
|         |                        | Edge 4         | 600            | 1880.0     | 18.50         |                |             |               | 18.40  | 0.321          | 0.328  | 0.173           | 0.177  |          |       |       |       |  |

**10.8. CDMA BC10**

| Antenna | RF Exposure Conditions | Mode           | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|------------------------|----------------|------------|------------|---------------|-------|-------------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |                        |                |            |            |               |       |             | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT1    | Head                   | 1xRTT RC3 SO55 | Mode A     | 0          | Left Touch    | 560   | 820.0       | 25.70         | 25.70 | 0.211          | 0.211  | 0.162           | 0.162  | 53       |
|         |                        |                |            |            | Left Tilt     | 560   | 820.0       | 25.70         | 25.70 | 0.133          | 0.133  | 0.102           | 0.102  |          |
|         |                        |                |            |            | Right Touch   | 560   | 820.0       | 25.70         | 25.70 | 0.303          | 0.303  | 0.223           | 0.223  |          |
|         |                        |                |            |            | Right Tilt    | 560   | 820.0       | 25.70         | 25.70 | 0.218          | 0.218  | 0.168           | 0.168  |          |
|         |                        | 1xEVDO Rel. 0  | Mode A     | 0          | Left Touch    | 560   | 820.0       | 25.70         | 25.70 | 0.203          | 0.203  | 0.154           | 0.154  |          |
|         |                        |                |            |            | Left Tilt     | 560   | 820.0       | 25.70         | 25.70 | 0.147          | 0.147  | 0.113           | 0.113  |          |
|         |                        |                |            |            | Right Touch   | 560   | 820.0       | 25.70         | 25.70 | 0.248          | 0.248  | 0.187           | 0.187  |          |
|         |                        |                |            |            | Right Tilt    | 560   | 820.0       | 25.70         | 25.70 | 0.125          | 0.125  | 0.097           | 0.097  |          |
|         | Body & Hotspot         | 1xRTT RC3 SO32 | Mode B     | 5          | Rear          | 560   | 820.0       | 25.70         | 25.70 | 0.488          | 0.488  | 0.301           | 0.301  | 54       |
|         |                        |                |            |            | Front         | 560   | 820.0       | 25.70         | 25.70 | 0.276          | 0.276  | 0.179           | 0.179  |          |
|         | Hotspot                | 1xRTT RC3 SO32 | Mode B     | 5          | Edge 2        | 560   | 820.0       | 25.70         | 25.70 | 0.543          | 0.543  | 0.350           | 0.350  | 55       |
|         |                        |                |            |            | Edge 3        | 560   | 820.0       | 25.70         | 25.70 | 0.152          | 0.152  | 0.081           | 0.081  |          |
|         |                        |                |            |            | Edge 4        | 560   | 820.0       | 25.70         | 25.70 | 0.259          | 0.259  | 0.168           | 0.168  |          |
| Antenna | RF Exposure Conditions | Mode           | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|         |                        |                |            |            |               |       |             | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT2    | Head                   | 1xRTT RC3 SO55 | Mode A     | 0          | Left Touch    | 560   | 820.0       | 24.50         | 24.50 | 0.385          | 0.385  | 0.285           | 0.285  | 56       |
|         |                        |                |            |            | Left Tilt     | 560   | 820.0       | 24.50         | 24.50 | 0.242          | 0.242  | 0.156           | 0.156  |          |
|         |                        |                |            |            | Right Touch   | 560   | 820.0       | 24.50         | 24.50 | 0.496          | 0.496  | 0.328           | 0.328  |          |
|         |                        |                |            |            | Right Tilt    | 560   | 820.0       | 24.50         | 24.50 | 0.349          | 0.349  | 0.198           | 0.198  |          |
|         |                        | 1xEVDO Rel. 0  | Mode A     | 0          | Left Touch    | 560   | 820.0       | 24.50         | 24.50 | 0.333          | 0.333  | 0.247           | 0.247  |          |
|         |                        |                |            |            | Left Tilt     | 560   | 820.0       | 24.50         | 24.50 | 0.224          | 0.224  | 0.151           | 0.151  |          |
|         |                        |                |            |            | Right Touch   | 560   | 820.0       | 24.50         | 24.50 | 0.482          | 0.482  | 0.302           | 0.302  |          |
|         |                        |                |            |            | Right Tilt    | 560   | 820.0       | 24.50         | 24.50 | 0.352          | 0.352  | 0.196           | 0.196  |          |
|         | Body & Hotspot         | 1xRTT RC3 SO32 | Mode B     | 5          | Rear          | 560   | 820.0       | 24.50         | 24.50 | 0.221          | 0.221  | 0.134           | 0.134  | 57       |
|         |                        |                |            |            | Front         | 560   | 820.0       | 24.50         | 24.50 | 0.156          | 0.156  | 0.104           | 0.104  |          |
|         | Hotspot                | 1xRTT RC3 SO32 | Mode B     | 5          | Edge 1        | 560   | 820.0       | 24.50         | 24.50 | 0.071          | 0.071  | 0.041           | 0.041  |          |
|         |                        |                |            |            | Edge 2        | 560   | 820.0       | 24.50         | 24.50 | 0.134          | 0.134  | 0.087           | 0.087  |          |
|         |                        |                |            |            | Edge 4        | 560   | 820.0       | 24.50         | 24.50 | 0.228          | 0.228  | 0.148           | 0.148  |          |

**10.9. LTE Band 5 (10MHz Bandwidth)**

| Antenna | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offset | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|------------------------|------|------------|------------|---------------|-------|-------------|---------------|-----------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |                        |      |            |            |               |       |             |               |           | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT1    | Head                   | QPSK | Mode A     | 0          | Left Touch    | 20525 | 836.5       | 1             | 25        | 25.70         | 25.20 | 0.253          | 0.284  | 0.194           | 0.218  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.194          | 0.218  | 0.150           | 0.168  |          |
|         |                        |      |            |            | Left Tilt     | 20525 | 836.5       | 1             | 25        | 25.70         | 25.20 | 0.136          | 0.153  | 0.105           | 0.118  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.108          | 0.121  | 0.083           | 0.093  |          |
|         |                        |      |            |            | Right Touch   | 20525 | 836.5       | 1             | 25        | 25.70         | 25.20 | 0.258          | 0.289  | 0.201           | 0.226  | 59       |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.204          | 0.229  | 0.160           | 0.180  |          |
|         |                        |      |            |            | Right Tilt    | 20525 | 836.5       | 1             | 25        | 25.70         | 25.20 | 0.133          | 0.149  | 0.102           | 0.114  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.104          | 0.117  | 0.080           | 0.090  |          |
|         | Body & Hotspot         | QPSK | Mode B     | 5          | Rear          | 20525 | 836.5       | 1             | 25        | 25.70         | 25.20 | 0.531          | 0.596  | 0.324           | 0.364  | 60       |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.393          | 0.441  | 0.244           | 0.274  |          |
|         |                        |      |            |            | Front         | 20525 | 836.5       | 1             | 25        | 25.70         | 25.20 | 0.269          | 0.302  | 0.174           | 0.195  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.213          | 0.239  | 0.138           | 0.155  |          |
|         | Hotspot                | QPSK | Mode B     | 5          | Edge 2        | 20525 | 836.5       | 1             | 25        | 25.70         | 25.20 | 0.516          | 0.579  | 0.333           | 0.374  | 61       |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.398          | 0.447  | 0.256           | 0.287  |          |
|         |                        |      |            |            | Edge 3        | 20525 | 836.5       | 1             | 25        | 25.70         | 25.20 | 0.172          | 0.193  | 0.090           | 0.101  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.128          | 0.144  | 0.068           | 0.076  |          |
|         |                        |      |            |            | Edge 4        | 20525 | 836.5       | 1             | 25        | 25.70         | 25.20 | 0.260          | 0.292  | 0.167           | 0.187  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.208          | 0.233  | 0.134           | 0.150  |          |

| Antenna | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offset | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|------------------------|------|------------|------------|---------------|-------|-------------|---------------|-----------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |                        |      |            |            |               |       |             |               |           | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT2    | Head                   | QPSK | Mode A     | 0          | Left Touch    | 20525 | 836.5       | 1             | 25        | 24.50         | 24.00 | 0.483          | 0.542  | 0.352           | 0.395  | 62       |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.387          | 0.434  | 0.278           | 0.312  |          |
|         |                        |      |            |            | Left Tilt     | 20525 | 836.5       | 1             | 25        | 24.50         | 24.00 | 0.294          | 0.330  | 0.184           | 0.206  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.237          | 0.266  | 0.146           | 0.164  |          |
|         |                        |      |            |            | Right Touch   | 20525 | 836.5       | 1             | 25        | 24.50         | 24.00 | 0.325          | 0.365  | 0.217           | 0.243  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.255          | 0.286  | 0.171           | 0.192  |          |
|         |                        |      |            |            | Right Tilt    | 20525 | 836.5       | 1             | 25        | 24.50         | 24.00 | 0.416          | 0.467  | 0.213           | 0.239  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.340          | 0.381  | 0.175           | 0.196  |          |
|         | Body & Hotspot         | QPSK | Mode B     | 5          | Rear          | 20525 | 836.5       | 1             | 25        | 24.50         | 24.00 | 0.367          | 0.412  | 0.210           | 0.236  | 63       |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.274          | 0.307  | 0.159           | 0.178  |          |
|         |                        |      |            |            | Front         | 20525 | 836.5       | 1             | 25        | 24.50         | 24.00 | 0.192          | 0.215  | 0.127           | 0.142  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.150          | 0.168  | 0.096           | 0.108  |          |
|         | Hotspot                | QPSK | Mode B     | 5          | Edge 1        | 20525 | 836.5       | 1             | 25        | 24.50         | 24.00 | 0.108          | 0.121  | 0.059           | 0.066  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.087          | 0.098  | 0.048           | 0.054  |          |
|         |                        |      |            |            | Edge 2        | 20525 | 836.5       | 1             | 25        | 24.50         | 24.00 | 0.183          | 0.205  | 0.117           | 0.131  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.152          | 0.171  | 0.097           | 0.109  |          |
|         |                        |      |            |            | Edge 4        | 20525 | 836.5       | 1             | 25        | 24.50         | 24.00 | 0.339          | 0.380  | 0.217           | 0.243  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.267          | 0.300  | 0.172           | 0.193  |          |

**UL CA 5B**

| Antenna | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | PCC UL |             |               |           | SCC UL |             |               |           | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|------------------------|------|------------|------------|---------------|--------|-------------|---------------|-----------|--------|-------------|---------------|-----------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |                        |      |            |            |               | Ch #.  | Freq. (MHz) | RB Allocation | RB offset | Ch #.  | Freq. (MHz) | RB Allocation | RB offset | Tune-up limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT 1   | Head                   | QPSK | Mode A     | 0          | Right Touch   | 20525  | 836.5       | 1             | 49        | 20599  | 843.9       | 1             | 0         | 25.00         | 24.67 | 0.235          | 0.254  | 0.178           | 0.192  |          |
| ANT 1   | Body                   | QPSK | Mode B     | 5          | Rear          | 20525  | 836.5       | 1             | 49        | 20599  | 843.9       | 1             | 0         | 25.00         | 24.50 | 0.427          | 0.479  | 0.264           | 0.296  |          |
| ANT 2   | Head                   | QPSK | Mode A     | 0          | Left Touch    | 20525  | 836.5       | 1             | 49        | 20599  | 843.9       | 1             | 0         | 23.50         | 23.23 | 0.368          | 0.392  | 0.272           | 0.289  |          |
| ANT 2   | Body                   | QPSK | Mode B     | 5          | Rear          | 20525  | 836.5       | 1             | 49        | 20599  | 843.9       | 1             | 0         | 23.50         | 23.26 | 0.252          | 0.266  | 0.145           | 0.153  |          |

**Note(s):**

PCC RB allocation setting for UL CA has been adjusted based on the worst-case power.

**10.10. LTE Band 7 (20MHz Bandwidth)**

| Antenna | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offset | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|------------------------|------|------------|------------|---------------|-------|-------------|---------------|-----------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |                        |      |            |            |               |       |             |               |           | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT1    | Head                   | QPSK | Mode A     | 0          | Left Touch    | 21100 | 2535.0      | 1             | 49        | 25.70         | 25.40 | 0.238          | 0.255  | 0.124           | 0.133  | 64       |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.70         | 24.40 | 0.215          | 0.230  | 0.111           | 0.119  |          |
|         |                        |      |            |            | Left Tilt     | 21100 | 2535.0      | 1             | 49        | 25.70         | 25.40 | 0.246          | 0.264  | 0.107           | 0.115  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.70         | 24.40 | 0.198          | 0.212  | 0.086           | 0.092  |          |
|         |                        |      |            |            | Right Touch   | 21100 | 2535.0      | 1             | 49        | 25.70         | 25.40 | 0.238          | 0.255  | 0.135           | 0.145  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.70         | 24.40 | 0.198          | 0.212  | 0.112           | 0.120  |          |
|         |                        |      |            |            | Right Tilt    | 21100 | 2535.0      | 1             | 49        | 25.70         | 25.40 | 0.225          | 0.241  | 0.098           | 0.105  | 65       |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.70         | 24.40 | 0.174          | 0.186  | 0.076           | 0.081  |          |
|         | Body & Hotspot         | QPSK | Mode B     | 5          | Rear          | 21100 | 2535.0      | 1             | 49        | 21.75         | 21.70 | 0.673          | 0.681  | 0.260           | 0.263  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.75         | 21.70 | 0.658          | 0.666  | 0.270           | 0.273  |          |
|         |                        |      |            |            | Front         | 21100 | 2535.0      | 1             | 49        | 21.75         | 21.70 | 0.540          | 0.546  | 0.234           | 0.237  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.75         | 21.70 | 0.546          | 0.552  | 0.236           | 0.239  |          |
|         | Hotspot                | QPSK | Mode B     | 5          | Edge 2        | 21100 | 2535.0      | 1             | 49        | 21.75         | 21.70 | 0.440          | 0.445  | 0.160           | 0.162  | 66       |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.75         | 21.70 | 0.397          | 0.402  | 0.182           | 0.184  |          |
|         |                        |      |            |            | Edge 3        | 20850 | 2510.0      | 1             | 49        | 21.75         | 21.70 | 0.930          | 0.941  | 0.362           | 0.366  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.75         | 21.70 | 0.933          | 0.944  | 0.360           | 0.364  |          |
|         |                        |      |            |            |               |       |             | 100           | 0         | 21.75         | 21.70 | 0.973          | 0.984  | 0.356           | 0.360  |          |
|         |                        |      |            |            |               | 21100 | 2535.0      | 1             | 49        | 21.75         | 21.70 | 0.942          | 0.953  | 0.337           | 0.341  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.75         | 21.70 | 0.949          | 0.960  | 0.351           | 0.355  |          |
|         |                        |      |            |            |               |       |             | 100           | 0         | 21.75         | 21.70 | 0.973          | 0.984  | 0.356           | 0.360  |          |
|         |                        |      |            |            | Edge 4        | 21100 | 2560.0      | 1             | 49        | 21.75         | 21.70 | 0.845          | 0.855  | 0.311           | 0.315  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.75         | 21.70 | 0.827          | 0.837  | 0.313           | 0.317  |          |
|         |                        |      |            |            |               |       |             | 1             | 49        | 21.75         | 21.70 | 0.124          | 0.125  | 0.052           | 0.053  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.75         | 21.70 | 0.165          | 0.167  | 0.081           | 0.082  |          |
| Antenna | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offset | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|         |                        |      |            |            |               |       |             |               |           | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT2    | Head                   | QPSK | Mode A     | 0          | Left Touch    | 21100 | 2535.0      | 1             | 49        | 18.75         | 18.40 | 0.560          | 0.607  | 0.248           | 0.269  | 67       |
|         |                        |      |            |            |               |       |             | 50            | 24        | 18.75         | 18.40 | 0.554          | 0.600  | 0.244           | 0.264  |          |
|         |                        |      |            |            | Left Tilt     | 21100 | 2535.0      | 1             | 49        | 18.75         | 18.40 | 0.697          | 0.755  | 0.288           | 0.312  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 18.75         | 18.40 | 0.695          | 0.753  | 0.287           | 0.311  |          |
|         |                        |      |            |            | Right Touch   | 21100 | 2535.0      | 1             | 49        | 18.75         | 18.40 | 0.549          | 0.595  | 0.221           | 0.240  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 18.75         | 18.40 | 0.552          | 0.598  | 0.222           | 0.241  |          |
|         |                        |      |            |            | Right Tilt    | 20850 | 2510.0      | 1             | 49        | 18.75         | 18.60 | 0.855          | 0.885  | 0.336           | 0.348  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 18.75         | 18.60 | 0.856          | 0.886  | 0.337           | 0.349  |          |
|         |                        |      |            |            |               |       |             | 100           | 0         | 18.75         | 18.50 | 0.819          | 0.868  | 0.324           | 0.343  |          |
|         |                        |      |            |            |               | 21100 | 2535.0      | 1             | 49        | 18.75         | 18.40 | 0.816          | 0.884  | 0.328           | 0.356  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 18.75         | 18.40 | 0.817          | 0.886  | 0.322           | 0.349  |          |
|         |                        |      |            |            |               |       |             | 100           | 0         | 18.75         | 18.50 | 0.819          | 0.868  | 0.324           | 0.343  |          |
|         |                        |      |            |            | Edge 1        | 20850 | 2510.0      | 1             | 49        | 18.75         | 18.40 | 0.801          | 0.868  | 0.316           | 0.343  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 18.75         | 18.40 | 0.814          | 0.882  | 0.321           | 0.348  |          |
|         |                        |      |            |            |               |       |             | 100           | 0         | 18.75         | 18.40 | 0.814          | 0.882  | 0.321           | 0.348  |          |
|         |                        |      |            |            |               | 21100 | 2535.0      | 1             | 49        | 20.50         | 20.50 | 0.673          | 0.673  | 0.315           | 0.315  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 20.50         | 20.34 | 0.666          | 0.691  | 0.308           | 0.320  |          |
|         |                        |      |            |            |               |       |             | 100           | 0         | 20.50         | 20.44 | 0.823          | 0.834  | 0.373           | 0.378  |          |
|         | Body & Hotspot         | QPSK | Mode B     | 5          | Rear          | 20850 | 2510.0      | 1             | 49        | 20.50         | 20.50 | 0.893          | 0.893  | 0.391           | 0.391  | 68       |
|         |                        |      |            |            |               |       |             | 50            | 24        | 20.50         | 20.50 | 0.899          | 0.899  | 0.386           | 0.386  |          |
|         |                        |      |            |            |               |       |             | 100           | 0         | 20.50         | 20.44 | 0.823          | 0.834  | 0.373           | 0.378  |          |
|         |                        |      |            |            |               | 21100 | 2535.0      | 1             | 49        | 20.50         | 20.32 | 0.749          | 0.781  | 0.336           | 0.350  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 20.50         | 20.33 | 0.715          | 0.744  | 0.329           | 0.342  |          |
|         |                        |      |            |            |               |       |             | 100           | 0         | 20.50         | 20.44 | 0.868          | 0.880  | 0.326           | 0.331  |          |
|         |                        |      |            |            | Edge 2        | 21100 | 2535.0      | 1             | 49        | 20.50         | 20.50 | 0.098          | 0.098  | 0.047           | 0.047  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 20.50         | 20.50 | 0.075          | 0.075  | 0.029           | 0.029  |          |
|         |                        |      |            |            |               |       |             | 100           | 0         | 20.50         | 20.50 | 0.645          | 0.645  | 0.293           | 0.293  |          |
|         |                        |      |            |            | Edge 4        | 21100 | 2535.0      | 1             | 49        | 20.50         | 20.50 | 0.540          | 0.540  | 0.259           | 0.259  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 20.50         | 20.50 | 0.540          | 0.540  | 0.259           | 0.259  |          |
|         |                        |      |            |            |               |       |             | 100           | 0         | 20.50         | 20.50 | 0.540          | 0.540  | 0.259           | 0.259  |          |

| Antenna | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offset | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|------------------------|------|------------|------------|---------------|-------|-------------|---------------|-----------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |                        |      |            |            |               |       |             |               |           | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT3    | Head                   | QPSK | Mode A     | 0          | Left Touch    | 21100 | 2535.0      | 1             | 49        | 25.00         | 24.50 | 0.428          | 0.480  | 0.228           | 0.256  | 69       |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.00         | 23.50 | 0.352          | 0.395  | 0.187           | 0.210  |          |
|         |                        |      |            |            | Left Tilt     | 21100 | 2535.0      | 1             | 49        | 25.00         | 24.50 | 0.117          | 0.131  | 0.058           | 0.065  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.00         | 23.50 | 0.092          | 0.103  | 0.046           | 0.052  |          |
|         |                        |      |            |            | Right Touch   | 21100 | 2535.0      | 1             | 49        | 25.00         | 24.50 | 0.227          | 0.255  | 0.122           | 0.137  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.00         | 23.50 | 0.178          | 0.200  | 0.095           | 0.107  |          |
|         |                        |      |            |            | Right Tilt    | 21100 | 2535.0      | 1             | 49        | 25.00         | 24.50 | 0.128          | 0.144  | 0.065           | 0.073  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.00         | 23.50 | 0.099          | 0.111  | 0.049           | 0.055  |          |
|         | Body & Hotspot         | QPSK | Mode B     | 5          | Rear          | 20850 | 2510.0      | 1             | 49        | 21.75         | 21.40 | 0.915          | 0.992  | 0.377           | 0.409  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.75         | 21.40 | 0.913          | 0.990  | 0.375           | 0.406  |          |
|         |                        |      |            |            |               | 21100 | 2535.0      | 1             | 49        | 21.75         | 21.50 | 0.940          | 0.996  | 0.394           | 0.417  | 70       |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.75         | 21.40 | 0.821          | 0.890  | 0.364           | 0.395  |          |
|         |                        |      |            |            | Front         | 21350 | 2560.0      | 1             | 49        | 21.75         | 21.75 | 0.894          | 0.894  | 0.384           | 0.384  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.75         | 21.75 | 0.917          | 0.917  | 0.390           | 0.390  |          |
|         |                        |      |            |            |               | 21100 | 2535.0      | 1             | 49        | 21.75         | 21.50 | 0.604          | 0.640  | 0.251           | 0.266  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.75         | 21.40 | 0.606          | 0.657  | 0.252           | 0.273  |          |
|         | Hotspot                | QPSK | Mode B     | 5          | Edge 3        | 21100 | 2535.0      | 1             | 49        | 21.75         | 21.50 | 0.301          | 0.319  | 0.147           | 0.156  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.75         | 21.40 | 0.308          | 0.334  | 0.117           | 0.127  |          |
|         |                        |      |            |            | Edge 4        | 21100 | 2535.0      | 1             | 49        | 21.75         | 21.50 | 0.666          | 0.705  | 0.244           | 0.258  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.75         | 21.40 | 0.544          | 0.590  | 0.235           | 0.255  |          |
| Antenna | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offset | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
| ANT4    | Head                   | QPSK | Mode A     | 0          | Left Touch    | 20850 | 2510.0      | 1             | 49        | 17.00         | 17.00 | 0.879          | 0.879  | 0.422           | 0.422  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 17.00         | 17.00 | 0.888          | 0.888  | 0.426           | 0.426  |          |
|         |                        |      |            |            |               | 21100 | 2535.0      | 1             | 49        | 17.00         | 16.70 | 0.837          | 0.897  | 0.405           | 0.434  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 17.00         | 16.70 | 0.832          | 0.892  | 0.404           | 0.433  |          |
|         |                        |      |            |            | Left Tilt     | 21350 | 2560.0      | 1             | 49        | 17.00         | 16.80 | 0.857          | 0.897  | 0.418           | 0.438  | 71       |
|         |                        |      |            |            |               |       |             | 50            | 24        | 17.00         | 16.90 | 0.863          | 0.883  | 0.421           | 0.431  |          |
|         |                        |      |            |            |               | 21100 | 2535.0      | 1             | 49        | 17.00         | 16.70 | 0.497          | 0.533  | 0.239           | 0.256  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 17.00         | 16.70 | 0.496          | 0.531  | 0.231           | 0.248  |          |
|         |                        |      |            |            | Right Touch   | 21100 | 2535.0      | 1             | 49        | 17.00         | 16.70 | 0.219          | 0.235  | 0.126           | 0.135  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 17.00         | 16.70 | 0.274          | 0.294  | 0.150           | 0.161  |          |
|         |                        |      |            |            | Right Tilt    | 21100 | 2535.0      | 1             | 49        | 17.00         | 16.70 | 0.186          | 0.199  | 0.103           | 0.110  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 17.00         | 16.70 | 0.187          | 0.200  | 0.104           | 0.111  |          |
|         | Body & Hotspot         | QPSK | Mode B     | 5          | Rear          | 20850 | 2510.0      | 1             | 49        | 18.25         | 18.10 | 0.827          | 0.856  | 0.389           | 0.403  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 18.25         | 18.00 | 0.826          | 0.875  | 0.383           | 0.406  |          |
|         |                        |      |            |            |               | 21100 | 2535.0      | 1             | 49        | 18.25         | 18.00 | 0.830          | 0.879  | 0.392           | 0.415  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 18.25         | 18.00 | 0.819          | 0.868  | 0.386           | 0.409  |          |
|         |                        |      |            |            | Front         | 21350 | 2560.0      | 1             | 49        | 18.25         | 17.80 | 0.806          | 0.894  | 0.373           | 0.414  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 18.25         | 17.80 | 0.799          | 0.886  | 0.367           | 0.407  |          |
|         |                        |      |            |            |               | 21100 | 2535.0      | 1             | 49        | 18.25         | 18.00 | 0.302          | 0.320  | 0.152           | 0.161  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 18.25         | 18.00 | 0.293          | 0.310  | 0.145           | 0.154  |          |
|         | Hotspot                | QPSK | Mode B     | 5          | Edge 1        | 21100 | 2535.0      | 1             | 49        | 18.25         | 18.00 | 0.440          | 0.466  | 0.172           | 0.182  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 18.25         | 18.00 | 0.346          | 0.367  | 0.135           | 0.143  |          |
|         |                        |      |            |            | Edge 2        | 21100 | 2535.0      | 1             | 49        | 18.25         | 18.00 | 0.464          | 0.491  | 0.219           | 0.232  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 18.25         | 18.00 | 0.466          | 0.494  | 0.220           | 0.233  |          |

## UL CA 7C

| Antenna | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | PCC UL |             |               |           | SCC UL |             |               |           | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|------------------------|------|------------|------------|---------------|--------|-------------|---------------|-----------|--------|-------------|---------------|-----------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |                        |      |            |            |               | Ch #.  | Freq. (MHz) | RB Allocation | RB offset | Ch #.  | Freq. (MHz) | RB Allocation | RB offset | Tune-up limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT 1   | Head                   | QPSK | Mode A     | 0          | Left Tilt     | 21100  | 2535        | 1             | 99        | 21298  | 2554.8      | 1             | 0         | 25.00         | 24.95 | 0.254          | 0.257  | 0.108           | 0.109  |          |
| ANT 1   | Body                   | QPSK | Mode B     | 5          | Rear          | 21100  | 2535        | 1             | 99        | 21298  | 2554.8      | 1             | 0         | 21.75         | 21.70 | 0.629          | 0.636  | 0.248           | 0.251  |          |
| ANT 1   | Hotspot                | QPSK | Mode B     | 5          | Edge 3        | 21100  | 2535        | 1             | 99        | 21298  | 2554.8      | 1             | 0         | 21.75         | 21.70 | 0.896          | 0.906  | 0.336           | 0.340  |          |
| ANT 2   | Head                   | QPSK | Mode A     | 0          | Right Tilt    | 20850  | 2510        | 1             | 99        | 21048  | 2529.8      | 1             | 0         | 18.75         | 18.50 | 0.739          | 0.783  | 0.279           | 0.296  |          |
| ANT 2   | Body                   | QPSK | Mode B     | 5          | Rear          | 21100  | 2535        | 1             | 99        | 21298  | 2554.8      | 1             | 0         | 20.50         | 20.31 | 0.843          | 0.881  | 0.387           | 0.404  |          |
| ANT 3   | Head                   | QPSK | Mode A     | 0          | Left Touch    | 21100  | 2535        | 1             | 99        | 21298  | 2554.8      | 1             | 0         | 24.50         | 24.50 | 0.397          | 0.397  | 0.213           | 0.213  |          |
| ANT 3   | Body                   | QPSK | Mode B     | 5          | Rear          | 21100  | 2535        | 1             | 99        | 21298  | 2554.8      | 1             | 0         | 21.75         | 21.75 | 0.909          | 0.909  | 0.401           | 0.401  |          |
| ANT 4   | Head                   | QPSK | Mode A     | 0          | Left Touch    | 21350  | 2560        | 1             | 0         | 21152  | 2540.2      | 1             | 99        | 17.00         | 16.95 | 0.855          | 0.865  | 0.401           | 0.406  |          |
| ANT 4   | Body                   | QPSK | Mode B     | 5          | Rear          | 21100  | 2535        | 1             | 99        | 21298  | 2554.8      | 1             | 0         | 18.25         | 18.20 | 0.461          | 0.466  | 0.217           | 0.220  |          |

## Note(s):

PCC RB allocation setting for UL CA has been adjusted based on the worst-case power.

**10.11. LTE Band 12 (10MHz Bandwidth)**

| Antenna | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offset | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|------------------------|------|------------|------------|---------------|-------|-------------|---------------|-----------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |                        |      |            |            |               |       |             |               |           | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT1    | Head                   | QPSK | Mode A     | 0          | Left Touch    | 23095 | 707.5       | 1             | 25        | 25.70         | 25.30 | 0.164          | 0.180  | 0.129           | 0.141  | 73       |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.125          | 0.140  | 0.099           | 0.111  |          |
|         |                        |      |            |            | Left Tilt     | 23095 | 707.5       | 1             | 25        | 25.70         | 25.30 | 0.122          | 0.134  | 0.095           | 0.104  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.092          | 0.104  | 0.072           | 0.081  |          |
|         |                        |      |            |            | Right Touch   | 23095 | 707.5       | 1             | 25        | 25.70         | 25.30 | 0.159          | 0.174  | 0.126           | 0.138  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.124          | 0.139  | 0.097           | 0.109  |          |
|         |                        |      |            |            | Right Tilt    | 23095 | 707.5       | 1             | 25        | 25.70         | 25.30 | 0.084          | 0.092  | 0.064           | 0.070  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.065          | 0.072  | 0.050           | 0.056  |          |
|         | Body & Hotspot         | QPSK | Mode B     | 5          | Rear          | 23095 | 707.5       | 1             | 25        | 25.70         | 25.30 | 0.638          | 0.700  | 0.343           | 0.376  | 74       |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.505          | 0.567  | 0.271           | 0.304  |          |
|         |                        |      |            |            | Front         | 23095 | 707.5       | 1             | 25        | 25.70         | 25.30 | 0.321          | 0.352  | 0.184           | 0.202  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.256          | 0.287  | 0.147           | 0.165  |          |
|         | Hotspot                | QPSK | Mode B     | 5          | Edge 2        | 23095 | 707.5       | 1             | 25        | 25.70         | 25.30 | 0.576          | 0.632  | 0.384           | 0.421  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.450          | 0.505  | 0.300           | 0.337  |          |
|         |                        |      |            |            | Edge 3        | 23095 | 707.5       | 1             | 25        | 25.70         | 25.30 | 0.404          | 0.443  | 0.178           | 0.195  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.294          | 0.330  | 0.131           | 0.147  |          |
|         |                        |      |            |            | Edge 4        | 23095 | 707.5       | 1             | 25        | 25.70         | 25.30 | 0.202          | 0.221  | 0.134           | 0.147  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.159          | 0.178  | 0.104           | 0.117  |          |
| Antenna | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offset | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|         |                        |      |            |            |               |       |             |               |           | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT2    | Head                   | QPSK | Mode A     | 0          | Left Touch    | 23095 | 707.5       | 1             | 25        | 24.50         | 24.00 | 0.360          | 0.404  | 0.268           | 0.301  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.290          | 0.325  | 0.217           | 0.243  |          |
|         |                        |      |            |            | Left Tilt     | 23095 | 707.5       | 1             | 25        | 24.50         | 24.00 | 0.354          | 0.397  | 0.221           | 0.248  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.287          | 0.322  | 0.190           | 0.213  |          |
|         |                        |      |            |            | Right Touch   | 23095 | 707.5       | 1             | 25        | 24.50         | 24.00 | 0.465          | 0.522  | 0.301           | 0.338  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.362          | 0.406  | 0.232           | 0.260  |          |
|         |                        |      |            |            | Right Tilt    | 23095 | 707.5       | 1             | 25        | 24.50         | 24.00 | 0.494          | 0.554  | 0.270           | 0.303  | 75       |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.395          | 0.443  | 0.216           | 0.242  |          |
|         | Body & Hotspot         | QPSK | Mode B     | 5          | Rear          | 23095 | 707.5       | 1             | 25        | 24.50         | 24.00 | 0.332          | 0.373  | 0.218           | 0.245  | 76       |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.262          | 0.294  | 0.173           | 0.194  |          |
|         |                        |      |            |            | Front         | 23095 | 707.5       | 1             | 25        | 24.50         | 24.00 | 0.220          | 0.247  | 0.164           | 0.184  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.172          | 0.193  | 0.128           | 0.144  |          |
|         | Hotspot                | QPSK | Mode B     | 5          | Edge 1        | 23095 | 707.5       | 1             | 25        | 24.50         | 24.00 | 0.122          | 0.137  | 0.061           | 0.068  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.099          | 0.111  | 0.049           | 0.055  |          |
|         |                        |      |            |            | Edge 2        | 23095 | 707.5       | 1             | 25        | 24.50         | 24.00 | 0.175          | 0.196  | 0.116           | 0.130  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.139          | 0.156  | 0.092           | 0.103  |          |
|         |                        |      |            |            | Edge 4        | 23095 | 707.5       | 1             | 25        | 24.50         | 24.00 | 0.388          | 0.435  | 0.259           | 0.291  | 77       |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.348          | 0.390  | 0.231           | 0.259  |          |

**10.12. LTE Band 13 (10MHz Bandwidth)**

| Antenna | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offset | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|------------------------|------|------------|------------|---------------|-------|-------------|---------------|-----------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |                        |      |            |            |               |       |             |               |           | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT1    | Head                   | QPSK | Mode A     | 0          | Left Touch    | 23230 | 782.0       | 1             | 25        | 25.70         | 25.20 | 0.173          | 0.194  | 0.133           | 0.149  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.113          | 0.127  | 0.087           | 0.098  |          |
|         |                        |      |            |            | Left Tilt     | 23230 | 782.0       | 1             | 25        | 25.70         | 25.20 | 0.081          | 0.091  | 0.064           | 0.072  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.070          | 0.079  | 0.550           | 0.617  |          |
|         |                        |      |            |            | Right Touch   | 23230 | 782.0       | 1             | 25        | 25.70         | 25.20 | 0.173          | 0.194  | 0.135           | 0.151  | 78       |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.137          | 0.154  | 0.108           | 0.121  |          |
|         | Body & Hotspot         | QPSK | Mode B     | 5          | Right Tilt    | 23230 | 782.0       | 1             | 25        | 25.70         | 25.20 | 0.110          | 0.123  | 0.086           | 0.097  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.084          | 0.094  | 0.066           | 0.073  |          |
|         |                        |      |            |            | Rear          | 23230 | 782.0       | 1             | 25        | 25.70         | 25.20 | 0.662          | 0.743  | 0.375           | 0.421  | 79       |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.530          | 0.595  | 0.300           | 0.337  |          |
|         |                        |      |            |            | Front         | 23230 | 782.0       | 1             | 25        | 25.70         | 25.20 | 0.337          | 0.378  | 0.199           | 0.223  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.274          | 0.307  | 0.161           | 0.181  |          |
|         | Hotspot                | QPSK | Mode B     | 5          | Edge 2        | 23230 | 782.0       | 1             | 25        | 25.70         | 25.20 | 0.637          | 0.715  | 0.285           | 0.320  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.617          | 0.692  | 0.419           | 0.470  |          |
|         |                        |      |            |            | Edge 3        | 23230 | 782.0       | 1             | 25        | 25.70         | 25.20 | 0.553          | 0.620  | 0.241           | 0.270  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.396          | 0.444  | 0.174           | 0.195  |          |
|         |                        |      |            |            | Edge 4        | 23230 | 782.0       | 1             | 25        | 25.70         | 25.20 | 0.277          | 0.311  | 0.186           | 0.209  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.242          | 0.272  | 0.158           | 0.177  |          |

| Antenna | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offset | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|------------------------|------|------------|------------|---------------|-------|-------------|---------------|-----------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |                        |      |            |            |               |       |             |               |           | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT2    | Head                   | QPSK | Mode A     | 0          | Left Touch    | 23230 | 782.0       | 1             | 25        | 24.50         | 24.00 | 0.333          | 0.374  | 0.240           | 0.269  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.272          | 0.305  | 0.196           | 0.220  |          |
|         |                        |      |            |            | Left Tilt     | 23230 | 782.0       | 1             | 25        | 24.50         | 24.00 | 0.289          | 0.324  | 0.182           | 0.204  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.237          | 0.266  | 0.149           | 0.167  |          |
|         |                        |      |            |            | Right Touch   | 23230 | 782.0       | 1             | 25        | 24.50         | 24.00 | 0.445          | 0.499  | 0.300           | 0.337  | 80       |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.357          | 0.401  | 0.239           | 0.268  |          |
|         | Body & Hotspot         | QPSK | Mode B     | 5          | Right Tilt    | 23230 | 782.0       | 1             | 25        | 24.50         | 24.00 | 0.366          | 0.411  | 0.207           | 0.232  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.295          | 0.331  | 0.167           | 0.187  |          |
|         |                        |      |            |            | Rear          | 23230 | 782.0       | 1             | 25        | 24.50         | 24.00 | 0.343          | 0.385  | 0.198           | 0.222  | 81       |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.283          | 0.318  | 0.162           | 0.182  |          |
|         |                        |      |            |            | Front         | 23230 | 782.0       | 1             | 25        | 24.50         | 24.00 | 0.189          | 0.212  | 0.129           | 0.145  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.154          | 0.173  | 0.105           | 0.118  |          |
|         | Hotspot                | QPSK | Mode B     | 5          | Edge 1        | 23230 | 782.0       | 1             | 25        | 24.50         | 24.00 | 0.109          | 0.122  | 0.056           | 0.063  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.078          | 0.088  | 0.042           | 0.047  |          |
|         |                        |      |            |            | Edge 2        | 23230 | 782.0       | 1             | 25        | 24.50         | 24.00 | 0.192          | 0.215  | 0.125           | 0.140  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.157          | 0.176  | 0.103           | 0.116  |          |
|         |                        |      |            |            | Edge 4        | 23230 | 782.0       | 1             | 25        | 24.50         | 24.00 | 0.361          | 0.405  | 0.235           | 0.264  | 82       |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.299          | 0.335  | 0.196           | 0.220  |          |

**10.13. LTE Band 14 (10MHz Bandwidth)**

| Antenna | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offset | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|------------------------|------|------------|------------|---------------|-------|-------------|---------------|-----------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |                        |      |            |            |               |       |             |               |           | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT1    | Head                   | QPSK | Mode A     | 0          | Left Touch    | 23330 | 793.0       | 1             | 25        | 25.70         | 25.20 | 0.168          | 0.188  | 0.127           | 0.142  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.30 | 0.123          | 0.135  | 0.094           | 0.103  |          |
|         |                        |      |            |            | Left Tilt     | 23330 | 793.0       | 1             | 25        | 25.70         | 25.20 | 0.129          | 0.145  | 0.100           | 0.112  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.30 | 0.097          | 0.106  | 0.075           | 0.082  |          |
|         |                        |      |            |            | Right Touch   | 23330 | 793.0       | 1             | 25        | 25.70         | 25.20 | 0.199          | 0.223  | 0.147           | 0.165  | 83       |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.30 | 0.152          | 0.167  | 0.114           | 0.125  |          |
|         | Body & Hotspot         | QPSK | Mode B     | 5          | Right Tilt    | 23330 | 793.0       | 1             | 25        | 25.70         | 25.20 | 0.115          | 0.129  | 0.089           | 0.100  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.30 | 0.090          | 0.099  | 0.069           | 0.076  |          |
|         |                        |      |            |            | Rear          | 23330 | 793.0       | 1             | 25        | 25.70         | 25.20 | 0.755          | 0.847  | 0.392           | 0.440  | 84       |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.30 | 0.713          | 0.782  | 0.357           | 0.391  |          |
|         |                        |      |            |            | Front         | 23330 | 793.0       | 1             | 25        | 25.70         | 25.20 | 0.389          | 0.436  | 0.241           | 0.270  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.30 | 0.304          | 0.333  | 0.167           | 0.183  |          |
|         | Hotspot                | QPSK | Mode B     | 5          | Edge 2        | 23330 | 793.0       | 1             | 25        | 25.70         | 25.20 | 0.600          | 0.673  | 0.391           | 0.439  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.30 | 0.495          | 0.543  | 0.321           | 0.352  |          |
|         |                        |      |            |            | Edge 3        | 23330 | 793.0       | 1             | 25        | 25.70         | 25.20 | 0.551          | 0.618  | 0.240           | 0.269  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.30 | 0.369          | 0.405  | 0.164           | 0.180  |          |
|         |                        |      |            |            | Edge 4        | 23330 | 793.0       | 1             | 25        | 25.70         | 25.20 | 0.303          | 0.340  | 0.196           | 0.220  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.30 | 0.272          | 0.298  | 0.176           | 0.193  |          |

| Antenna | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offset | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|------------------------|------|------------|------------|---------------|-------|-------------|---------------|-----------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |                        |      |            |            |               |       |             |               |           | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT2    | Head                   | QPSK | Mode A     | 0          | Left Touch    | 23330 | 793.0       | 1             | 25        | 24.50         | 24.00 | 0.313          | 0.351  | 0.223           | 0.250  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.250          | 0.281  | 0.176           | 0.197  |          |
|         |                        |      |            |            | Left Tilt     | 23330 | 793.0       | 1             | 25        | 24.50         | 24.00 | 0.239          | 0.268  | 0.148           | 0.166  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.184          | 0.206  | 0.113           | 0.127  |          |
|         |                        |      |            |            | Right Touch   | 23330 | 793.0       | 1             | 25        | 24.50         | 24.00 | 0.354          | 0.397  | 0.221           | 0.248  | 85       |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.278          | 0.312  | 0.174           | 0.195  |          |
|         | Body & Hotspot         | QPSK | Mode B     | 5          | Right Tilt    | 23330 | 793.0       | 1             | 25        | 24.50         | 24.00 | 0.294          | 0.330  | 0.166           | 0.186  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.232          | 0.260  | 0.132           | 0.148  |          |
|         |                        |      |            |            | Rear          | 23330 | 793.0       | 1             | 25        | 24.50         | 24.00 | 0.266          | 0.298  | 0.148           | 0.166  | 86       |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.262          | 0.294  | 0.147           | 0.165  |          |
|         |                        |      |            |            | Front         | 23330 | 793.0       | 1             | 25        | 24.50         | 24.00 | 0.158          | 0.177  | 0.119           | 0.134  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.123          | 0.138  | 0.094           | 0.105  |          |
|         | Hotspot                | QPSK | Mode B     | 5          | Edge 1        | 23330 | 793.0       | 1             | 25        | 24.50         | 24.00 | 0.111          | 0.125  | 0.058           | 0.065  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.083          | 0.093  | 0.043           | 0.048  |          |
|         |                        |      |            |            | Edge 2        | 23330 | 793.0       | 1             | 25        | 24.50         | 24.00 | 0.208          | 0.233  | 0.134           | 0.150  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.158          | 0.177  | 0.103           | 0.116  |          |
|         |                        |      |            |            | Edge 4        | 23330 | 793.0       | 1             | 25        | 24.50         | 24.00 | 0.335          | 0.376  | 0.220           | 0.247  | 87       |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.262          | 0.294  | 0.171           | 0.192  |          |

**10.14. LTE Band 25 (20MHz Bandwidth)**

| Antenna | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offset | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|------------------------|------|------------|------------|---------------|-------|-------------|---------------|-----------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |                        |      |            |            |               |       |             |               |           | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT1    | Head                   | QPSK | Mode A     | 0          | Left Touch    | 26365 | 1882.5      | 1             | 49        | 25.70         | 25.20 | 0.284          | 0.319  | 0.181           | 0.203  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.70         | 24.20 | 0.224          | 0.251  | 0.143           | 0.160  |          |
|         |                        |      |            |            | Left Tilt     | 26365 | 1882.5      | 1             | 49        | 25.70         | 25.20 | 0.235          | 0.264  | 0.137           | 0.154  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.70         | 24.20 | 0.185          | 0.208  | 0.108           | 0.121  |          |
|         |                        |      |            |            | Right Touch   | 26365 | 1882.5      | 1             | 49        | 25.70         | 25.20 | 0.541          | 0.607  | 0.331           | 0.371  | 88       |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.70         | 24.20 | 0.436          | 0.489  | 0.266           | 0.298  |          |
|         |                        |      |            |            | Right Tilt    | 26365 | 1882.5      | 1             | 49        | 25.70         | 25.20 | 0.187          | 0.210  | 0.118           | 0.132  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.70         | 24.20 | 0.146          | 0.164  | 0.092           | 0.103  |          |
|         | Body & Hotspot         | QPSK | Mode B     | 5          | Rear          | 26140 | 1860.0      | 1             | 49        | 21.75         | 21.60 | 0.959          | 0.993  | 0.469           | 0.485  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.75         | 21.60 | 0.951          | 0.984  | 0.466           | 0.482  |          |
|         |                        |      |            |            |               | 26365 | 1882.5      | 1             | 49        | 21.75         | 21.60 | 0.950          | 0.983  | 0.468           | 0.484  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.75         | 21.60 | 0.956          | 0.990  | 0.471           | 0.488  |          |
|         |                        |      |            |            |               | 26590 | 1905.0      | 100           | 0         | 21.75         | 21.50 | 0.941          | 0.997  | 0.464           | 0.491  | 89       |
|         |                        |      |            |            |               |       |             | 1             | 49        | 21.75         | 21.50 | 0.935          | 0.990  | 0.466           | 0.494  |          |
|         |                        |      |            |            | Front         | 26365 | 1882.5      | 50            | 24        | 21.75         | 21.50 | 0.935          | 0.990  | 0.464           | 0.491  |          |
|         |                        |      |            |            |               |       |             | 1             | 49        | 21.75         | 21.60 | 0.714          | 0.739  | 0.378           | 0.391  |          |
|         |                        |      |            |            |               | 26140 | 1860.0      | 50            | 24        | 21.75         | 21.60 | 0.726          | 0.752  | 0.384           | 0.397  |          |
|         |                        |      |            |            |               |       |             | 1             | 49        | 21.75         | 21.60 | 0.823          | 0.852  | 0.402           | 0.416  |          |
| ANT2    | Head                   | QPSK | Mode A     | 0          | Edge 2        | 26140 | 1860.0      | 50            | 24        | 21.75         | 21.60 | 0.824          | 0.853  | 0.397           | 0.411  |          |
|         |                        |      |            |            |               |       |             | 1             | 49        | 21.75         | 21.60 | 0.911          | 0.943  | 0.429           | 0.444  |          |
|         |                        |      |            |            |               | 26365 | 1882.5      | 50            | 24        | 21.75         | 21.60 | 0.902          | 0.934  | 0.420           | 0.435  |          |
|         |                        |      |            |            |               |       |             | 100           | 0         | 21.75         | 21.50 | 0.860          | 0.911  | 0.410           | 0.434  |          |
|         |                        |      |            |            | Edge 3        | 26590 | 1905.0      | 1             | 49        | 21.75         | 21.50 | 0.897          | 0.950  | 0.423           | 0.448  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.75         | 21.50 | 0.907          | 0.961  | 0.425           | 0.450  |          |
|         |                        |      |            |            |               | 26365 | 1882.5      | 1             | 49        | 21.75         | 21.60 | 0.468          | 0.484  | 0.255           | 0.264  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.75         | 21.60 | 0.469          | 0.485  | 0.255           | 0.264  |          |
|         |                        |      |            |            | Edge 4        | 26365 | 1882.5      | 1             | 49        | 21.75         | 21.60 | 0.057          | 0.059  | 0.029           | 0.030  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.75         | 21.60 | 0.053          | 0.055  | 0.027           | 0.028  |          |
|         | Body & Hotspot         | QPSK | Mode B     | 5          | Edge 2        | 26140 | 1860.0      | 50            | 24        | 21.75         | 21.60 | 0.824          | 0.853  | 0.397           | 0.411  |          |
|         |                        |      |            |            |               |       |             | 1             | 49        | 21.75         | 21.60 | 0.911          | 0.943  | 0.429           | 0.444  |          |
|         |                        |      |            |            |               | 26365 | 1882.5      | 50            | 24        | 21.75         | 21.60 | 0.902          | 0.934  | 0.420           | 0.435  |          |
|         |                        |      |            |            |               |       |             | 100           | 0         | 21.75         | 21.50 | 0.860          | 0.911  | 0.410           | 0.434  |          |
|         |                        |      |            |            | Edge 3        | 26590 | 1905.0      | 1             | 49        | 21.75         | 21.50 | 0.897          | 0.950  | 0.423           | 0.448  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.75         | 21.50 | 0.907          | 0.961  | 0.425           | 0.450  |          |
|         |                        |      |            |            |               | 26365 | 1882.5      | 1             | 49        | 21.75         | 21.60 | 0.468          | 0.484  | 0.255           | 0.264  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.75         | 21.60 | 0.469          | 0.485  | 0.255           | 0.264  |          |
|         |                        |      |            |            | Edge 4        | 26365 | 1882.5      | 1             | 49        | 21.75         | 21.60 | 0.057          | 0.059  | 0.029           | 0.030  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.75         | 21.60 | 0.053          | 0.055  | 0.027           | 0.028  |          |
|         | Hotspot                | QPSK | Mode B     | 5          | Edge 1        | 26140 | 1860.0      | 50            | 24        | 21.75         | 21.60 | 0.824          | 0.853  | 0.397           | 0.411  |          |
|         |                        |      |            |            |               |       |             | 1             | 49        | 21.75         | 21.60 | 0.911          | 0.943  | 0.429           | 0.444  |          |
|         |                        |      |            |            |               | 26365 | 1882.5      | 50            | 24        | 21.75         | 21.60 | 0.902          | 0.934  | 0.420           | 0.435  |          |
|         |                        |      |            |            |               |       |             | 100           | 0         | 21.75         | 21.50 | 0.860          | 0.911  | 0.410           | 0.434  |          |
|         |                        |      |            |            | Edge 2        | 26590 | 1905.0      | 1             | 49        | 21.75         | 21.50 | 0.897          | 0.950  | 0.423           | 0.448  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.75         | 21.50 | 0.907          | 0.961  | 0.425           | 0.450  |          |
|         |                        |      |            |            |               | 26365 | 1882.5      | 1             | 49        | 21.75         | 21.60 | 0.468          | 0.484  | 0.255           | 0.264  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.75         | 21.60 | 0.469          | 0.485  | 0.255           | 0.264  |          |
|         |                        |      |            |            | Edge 3        | 26365 | 1882.5      | 1             | 49        | 21.75         | 21.60 | 0.057          | 0.059  | 0.029           | 0.030  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.75         | 21.60 | 0.053          | 0.055  | 0.027           | 0.028  |          |
|         | Hotspot                | QPSK | Mode B     | 5          | Edge 4        | 26140 | 1860.0      | 50            | 24        | 21.75         | 21.60 | 0.824          | 0.853  | 0.397           | 0.411  |          |
|         |                        |      |            |            |               |       |             | 1             | 49        | 21.75         | 21.60 | 0.911          | 0.943  | 0.429           | 0.444  |          |
|         |                        |      |            |            |               | 26365 | 1882.5      | 50            | 24        | 21.75         | 21.60 | 0.902          | 0.934  | 0.420           | 0.435  |          |
|         |                        |      |            |            |               |       |             | 100           | 0         | 21.75         | 21.50 | 0.860          | 0.911  | 0.410           | 0.434  |          |
|         |                        |      |            |            | Edge 5        | 26590 | 1905.0      | 1             | 49        | 21.75         | 21.50 | 0.897          | 0.950  | 0.423           | 0.448  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.75         | 21.50 | 0.907          | 0.961  | 0.425           | 0.450  |          |
|         |                        |      |            |            |               | 26365 | 1882.5      | 1             | 49        | 21.75         | 21.60 | 0.468          | 0.484  | 0.255           | 0.264  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.75         | 21.60 | 0.469          | 0.485  | 0.255           | 0.264  |          |
|         |                        |      |            |            | Edge 6        | 26365 | 1882.5      | 1             | 49        | 21.75         | 21.60 | 0.057          | 0.059  | 0.029           | 0.030  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.75         | 21.60 | 0.053          | 0.055  | 0.027           | 0.028  |          |

| Antenna | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offset | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|------------------------|------|------------|------------|---------------|-------|-------------|---------------|-----------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |                        |      |            |            |               |       |             |               |           | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT3    | Head                   | QPSK | Mode A     | 0          | Left Touch    | 26365 | 1882.5      | 1             | 49        | 25.00         | 24.90 | 0.360          | 0.368  | 0.223           | 0.228  | 92       |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.00         | 23.90 | 0.289          | 0.296  | 0.179           | 0.183  |          |
|         |                        |      |            |            | Left Tilt     | 26365 | 1882.5      | 1             | 49        | 25.00         | 24.90 | 0.207          | 0.212  | 0.118           | 0.121  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.00         | 23.90 | 0.162          | 0.166  | 0.092           | 0.094  |          |
|         |                        |      |            |            | Right Touch   | 26365 | 1882.5      | 1             | 49        | 25.00         | 24.90 | 0.224          | 0.229  | 0.142           | 0.145  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.00         | 23.90 | 0.181          | 0.185  | 0.114           | 0.117  |          |
|         |                        |      |            |            | Right Tilt    | 26365 | 1882.5      | 1             | 49        | 25.00         | 24.90 | 0.230          | 0.235  | 0.126           | 0.129  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.00         | 23.90 | 0.182          | 0.186  | 0.100           | 0.102  |          |
|         | Body & Hotspot         | QPSK | Mode B     | 5          | Rear          | 26140 | 1860.0      | 1             | 49        | 19.75         | 19.60 | 0.906          | 0.938  | 0.447           | 0.463  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 19.75         | 19.60 | 0.934          | 0.967  | 0.447           | 0.463  | 93       |
|         |                        |      |            |            |               | 26365 | 1882.5      | 1             | 49        | 19.75         | 19.70 | 0.943          | 0.954  | 0.444           | 0.449  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 19.75         | 19.70 | 0.936          | 0.947  | 0.451           | 0.456  |          |
|         |                        |      |            |            |               | 26590 | 1905.0      | 1             | 49        | 19.75         | 19.70 | 0.901          | 0.911  | 0.434           | 0.439  |          |
|         |                        |      |            |            |               |       |             | 50            | 0         | 19.75         | 19.70 | 0.901          | 0.911  | 0.434           | 0.439  |          |
|         |                        |      |            |            | Front         | 26365 | 1882.5      | 1             | 49        | 19.75         | 19.50 | 0.886          | 0.938  | 0.423           | 0.448  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 19.75         | 19.50 | 0.887          | 0.940  | 0.421           | 0.446  |          |
|         |                        |      |            |            |               | 26365 | 1882.5      | 1             | 49        | 19.75         | 19.70 | 0.296          | 0.299  | 0.165           | 0.167  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 19.75         | 19.70 | 0.310          | 0.314  | 0.175           | 0.177  |          |
|         | Hotspot                | QPSK | Mode B     | 5          | Edge 3        | 26365 | 1882.5      | 1             | 49        | 19.75         | 19.70 | 0.275          | 0.278  | 0.146           | 0.148  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 19.75         | 19.70 | 0.280          | 0.283  | 0.146           | 0.148  |          |
|         |                        |      |            |            | Edge 4        | 26365 | 1882.5      | 1             | 49        | 19.75         | 19.70 | 0.424          | 0.429  | 0.222           | 0.225  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 19.75         | 19.70 | 0.407          | 0.412  | 0.215           | 0.217  |          |
| Antenna | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offset | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
| ANT4    | Head                   | QPSK | Mode A     | 0          | Left Touch    | 26140 | 1860.0      | 1             | 49        | 18.75         | 18.60 | 0.748          | 0.774  | 0.378           | 0.391  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 18.75         | 18.60 | 0.754          | 0.780  | 0.375           | 0.388  |          |
|         |                        |      |            |            |               | 26365 | 1882.5      | 1             | 49        | 18.75         | 18.70 | 0.883          | 0.893  | 0.443           | 0.448  | 94       |
|         |                        |      |            |            |               |       |             | 50            | 24        | 18.75         | 18.65 | 0.854          | 0.874  | 0.431           | 0.441  |          |
|         |                        |      |            |            |               | 26590 | 1905.0      | 1             | 49        | 18.75         | 18.65 | 0.843          | 0.863  | 0.419           | 0.429  |          |
|         |                        |      |            |            |               |       |             | 50            | 0         | 18.75         | 18.65 | 0.843          | 0.863  | 0.419           | 0.429  |          |
|         |                        |      |            |            | Left Tilt     | 26365 | 1882.5      | 1             | 49        | 18.75         | 18.50 | 0.826          | 0.875  | 0.415           | 0.440  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 18.75         | 18.50 | 0.789          | 0.836  | 0.389           | 0.412  |          |
|         |                        |      |            |            | Right Touch   | 26365 | 1882.5      | 1             | 49        | 18.75         | 18.70 | 0.590          | 0.597  | 0.275           | 0.278  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 18.75         | 18.65 | 0.553          | 0.566  | 0.257           | 0.263  |          |
|         |                        |      |            |            | Right Tilt    | 26365 | 1882.5      | 1             | 49        | 18.75         | 18.70 | 0.244          | 0.247  | 0.142           | 0.144  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 18.75         | 18.65 | 0.229          | 0.234  | 0.133           | 0.136  |          |
|         | Body & Hotspot         | QPSK | Mode B     | 5          | Rear          | 26365 | 1882.5      | 1             | 49        | 18.75         | 18.70 | 0.201          | 0.203  | 0.107           | 0.108  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 18.75         | 18.65 | 0.186          | 0.190  | 0.099           | 0.101  |          |
|         |                        |      |            |            | Front         | 26365 | 1882.5      | 1             | 49        | 20.00         | 19.90 | 0.569          | 0.582  | 0.276           | 0.282  | 95       |
|         |                        |      |            |            |               |       |             | 50            | 24        | 20.00         | 19.90 | 0.567          | 0.580  | 0.277           | 0.283  |          |
|         | Hotspot                | QPSK | Mode B     | 5          | Edge 1        | 26365 | 1882.5      | 1             | 49        | 20.00         | 19.90 | 0.415          | 0.425  | 0.215           | 0.220  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 20.00         | 19.90 | 0.411          | 0.421  | 0.213           | 0.218  |          |
|         |                        |      |            |            | Edge 2        | 26140 | 1860.0      | 1             | 49        | 20.00         | 19.80 | 0.814          | 0.852  | 0.370           | 0.387  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 20.00         | 19.70 | 0.811          | 0.869  | 0.367           | 0.393  |          |
|         |                        |      |            |            |               | 26365 | 1882.5      | 1             | 49        | 20.00         | 19.90 | 0.869          | 0.889  | 0.393           | 0.402  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 20.00         | 19.90 | 0.872          | 0.892  | 0.391           | 0.400  | 96       |
|         |                        |      |            |            |               | 26590 | 1905.0      | 1             | 49        | 20.00         | 19.90 | 0.861          | 0.881  | 0.387           | 0.396  |          |
|         |                        |      |            |            |               |       |             | 50            | 0         | 20.00         | 19.90 | 0.861          | 0.881  | 0.387           | 0.396  |          |
|         |                        |      |            |            |               | 26365 | 1882.5      | 1             | 49        | 20.00         | 19.80 | 0.777          | 0.814  | 0.353           | 0.370  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 20.00         | 19.80 | 0.779          | 0.816  | 0.353           | 0.370  |          |
|         |                        |      |            |            |               | 26590 | 1905.0      | 1             | 49        | 20.00         | 19.80 | 0.777          | 0.814  | 0.353           | 0.370  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 20.00         | 19.80 | 0.779          | 0.816  | 0.353           | 0.370  |          |

**10.15. LTE Band 26 (10MHz Bandwidth)**

| Antenna | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offset | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|------------------------|------|------------|------------|---------------|-------|-------------|---------------|-----------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |                        |      |            |            |               |       |             |               |           | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT1    | Head                   | QPSK | Mode A     | 0          | Left Touch    | 26865 | 831.5       | 1             | 25        | 25.70         | 25.20 | 0.244          | 0.274  | 0.190           | 0.213  | 97       |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.175          | 0.196  | 0.137           | 0.154  |          |
|         |                        |      |            |            | Left Tilt     | 26865 | 831.5       | 1             | 25        | 25.70         | 25.20 | 0.137          | 0.154  | 0.107           | 0.120  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.109          | 0.122  | 0.084           | 0.095  |          |
|         |                        |      |            |            | Right Touch   | 26865 | 831.5       | 1             | 25        | 25.70         | 25.20 | 0.240          | 0.269  | 0.183           | 0.205  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.193          | 0.217  | 0.148           | 0.166  |          |
|         | Body & Hotspot         | QPSK | Mode B     | 5          | Right Tilt    | 26865 | 831.5       | 1             | 25        | 25.70         | 25.20 | 0.131          | 0.147  | 0.100           | 0.112  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.111          | 0.125  | 0.085           | 0.095  |          |
|         |                        |      |            |            | Rear          | 26865 | 831.5       | 1             | 25        | 25.70         | 25.20 | 0.462          | 0.518  | 0.288           | 0.323  | 98       |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.362          | 0.406  | 0.225           | 0.252  |          |
|         |                        |      |            |            | Front         | 26865 | 831.5       | 1             | 25        | 25.70         | 25.20 | 0.258          | 0.289  | 0.170           | 0.191  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.204          | 0.229  | 0.134           | 0.150  |          |
|         | Hotspot                | QPSK | Mode B     | 5          | Edge 2        | 26865 | 831.5       | 1             | 25        | 25.70         | 25.20 | 0.554          | 0.622  | 0.359           | 0.403  | 99       |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.424          | 0.476  | 0.278           | 0.312  |          |
|         |                        |      |            |            | Edge 3        | 26865 | 831.5       | 1             | 25        | 25.70         | 25.20 | 0.197          | 0.221  | 0.105           | 0.118  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.138          | 0.155  | 0.075           | 0.084  |          |
|         |                        |      |            |            | Edge 4        | 26865 | 831.5       | 1             | 25        | 25.70         | 25.20 | 0.312          | 0.350  | 0.200           | 0.224  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 24.70         | 24.20 | 0.258          | 0.289  | 0.165           | 0.185  |          |
| ANT2    | Head                   | QPSK | Mode A     | 0          | Left Touch    | 26865 | 831.5       | 1             | 25        | 24.50         | 24.42 | 0.427          | 0.435  | 0.312           | 0.318  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.41 | 0.339          | 0.346  | 0.247           | 0.252  |          |
|         |                        |      |            |            | Left Tilt     | 26865 | 831.5       | 1             | 25        | 24.50         | 24.42 | 0.258          | 0.263  | 0.166           | 0.169  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.41 | 0.211          | 0.215  | 0.134           | 0.137  |          |
|         |                        |      |            |            | Right Touch   | 26865 | 831.5       | 1             | 25        | 24.50         | 24.42 | 0.517          | 0.527  | 0.344           | 0.350  | 100      |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.41 | 0.412          | 0.421  | 0.272           | 0.278  |          |
|         |                        |      |            |            | Right Tilt    | 26865 | 831.5       | 1             | 25        | 24.50         | 24.42 | 0.341          | 0.347  | 0.193           | 0.197  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.41 | 0.276          | 0.282  | 0.156           | 0.159  |          |
|         | Body & Hotspot         | QPSK | Mode B     | 5          | Rear          | 26865 | 831.5       | 1             | 25        | 24.50         | 24.42 | 0.290          | 0.295  | 0.171           | 0.174  | 101      |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.41 | 0.233          | 0.238  | 0.137           | 0.140  |          |
|         |                        |      |            |            | Front         | 26865 | 831.5       | 1             | 25        | 24.50         | 24.42 | 0.177          | 0.180  | 0.120           | 0.122  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.41 | 0.145          | 0.148  | 0.096           | 0.098  |          |
|         |                        |      |            |            | Edge 1        | 26865 | 831.5       | 1             | 25        | 24.50         | 24.42 | 0.103          | 0.105  | 0.057           | 0.058  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.41 | 0.085          | 0.087  | 0.047           | 0.048  |          |
|         | Hotspot                | QPSK | Mode B     | 5          | Edge 2        | 26865 | 831.5       | 1             | 25        | 24.50         | 24.42 | 0.155          | 0.158  | 0.100           | 0.102  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.41 | 0.128          | 0.131  | 0.083           | 0.084  |          |
|         |                        |      |            |            | Edge 4        | 26865 | 831.5       | 1             | 25        | 24.50         | 24.42 | 0.280          | 0.285  | 0.180           | 0.183  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.41 | 0.206          | 0.210  | 0.133           | 0.136  |          |

**10.16. LTE Band 30 (10MHz Bandwidth)**

| Antenna | RF Exposure Conditions | Mode           | Power Mode | Dist. (mm) | Test Position | Ch #.  | Freq. (MHz) | RB Allocation | RB offset | Power (dBm)   |        | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |       |       |       |     |
|---------|------------------------|----------------|------------|------------|---------------|--------|-------------|---------------|-----------|---------------|--------|----------------|--------|-----------------|--------|----------|-------|-------|-------|-----|
|         |                        |                |            |            |               |        |             |               |           | Tune-up Limit | Meas.  | Meas.          | Scaled | Meas.           | Scaled |          |       |       |       |     |
| ANT1    | Head                   | QPSK           | Mode A     | 0          | Left Touch    | 27710  | 2310.0      | 1             | 25        | 25.70         | 25.70  | 0.256          | 0.256  | 0.151           | 0.151  |          |       |       |       |     |
|         |                        |                |            |            |               |        |             | 25            | 12        | 24.70         | 24.70  | 0.234          | 0.234  | 0.136           | 0.136  |          |       |       |       |     |
|         |                        |                |            |            | Left Tilt     | 27710  | 2310.0      | 1             | 25        | 25.70         | 25.70  | 0.274          | 0.274  | 0.129           | 0.129  |          |       |       |       |     |
|         |                        |                |            |            |               |        |             | 25            | 12        | 24.70         | 24.70  | 0.201          | 0.201  | 0.097           | 0.097  |          |       |       |       |     |
|         |                        |                |            |            | Right Touch   | 27710  | 2310.0      | 1             | 25        | 25.70         | 25.70  | 0.510          | 0.510  | 0.276           | 0.276  | 102      |       |       |       |     |
|         |                        |                |            |            |               |        |             | 25            | 12        | 24.70         | 24.70  | 0.410          | 0.410  | 0.220           | 0.220  |          |       |       |       |     |
|         |                        |                |            |            | Right Tilt    | 27710  | 2310.0      | 1             | 25        | 25.70         | 25.70  | 0.172          | 0.172  | 0.093           | 0.093  |          |       |       |       |     |
|         |                        |                |            |            |               |        |             | 25            | 12        | 24.70         | 24.70  | 0.137          | 0.137  | 0.073           | 0.073  |          |       |       |       |     |
|         | Body & Hotspot         | QPSK           | Mode B     | 5          | Rear          | 27710  | 2310.0      | 1             | 25        | 22.00         | 21.95  | 0.745          | 0.754  | 0.359           | 0.363  |          |       |       |       |     |
|         |                        |                |            |            |               |        |             | 25            | 12        | 22.00         | 21.90  | 0.740          | 0.757  | 0.360           | 0.368  | 103      |       |       |       |     |
|         |                        |                |            |            | Front         | 27710  | 2310.0      | 1             | 25        | 22.00         | 21.95  | 0.680          | 0.688  | 0.333           | 0.337  |          |       |       |       |     |
|         |                        |                |            |            |               |        |             | 25            | 12        | 22.00         | 21.90  | 0.640          | 0.655  | 0.322           | 0.330  |          |       |       |       |     |
|         |                        |                |            |            | Hotspot       | QPSK   | Mode B      | 5             | Edge 2    | 27710         | 2310.0 | 1              | 25     | 22.00           | 21.95  | 0.931    | 0.942 | 0.397 | 0.402 |     |
|         |                        |                |            |            |               |        |             |               |           |               |        | 25             | 12     | 22.00           | 21.90  | 0.928    | 0.950 | 0.401 | 0.410 |     |
|         |                        |                |            |            |               |        |             |               | Edge 3    | 27710         | 2310.0 | 50             | 0      | 22.00           | 21.86  | 0.950    | 0.981 | 0.405 | 0.418 | 104 |
|         |                        |                |            |            |               |        |             |               |           |               |        | 1              | 25     | 22.00           | 21.95  | 0.241    | 0.244 | 0.106 | 0.107 |     |
|         | ANT2                   | Body & Hotspot | QPSK       | Mode B     | 5             | Edge 4 | 27710       | 2310.0        | 25        | 12            | 22.00  | 21.90          | 0.257  | 0.263           | 0.113  | 0.116    |       |       |       |     |
|         |                        |                |            |            |               |        |             |               | 1         | 25            | 22.00  | 21.95          | 0.034  | 0.035           | 0.018  | 0.019    |       |       |       |     |
|         |                        |                |            |            |               | Edge 2 | 27710       | 2310.0        | 25        | 12            | 22.00  | 21.90          | 0.033  | 0.034           | 0.018  | 0.018    |       |       |       |     |
|         |                        |                |            |            |               |        |             |               | 1         | 25            | 22.00  | 21.95          | 0.034  | 0.035           | 0.018  | 0.019    |       |       |       |     |
|         |                        |                |            |            |               | Edge 3 | 27710       | 2310.0        | 25        | 12            | 22.00  | 21.90          | 0.033  | 0.034           | 0.018  | 0.018    |       |       |       |     |
|         |                        |                |            |            |               |        |             |               | 1         | 25            | 22.00  | 21.95          | 0.034  | 0.035           | 0.018  | 0.019    |       |       |       |     |

| Antenna | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offset | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|------------------------|------|------------|------------|---------------|-------|-------------|---------------|-----------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |                        |      |            |            |               |       |             |               |           | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT3    | Head                   | QPSK | Mode A     | 0          | Left Touch    | 27710 | 2310.0      | 1             | 25        | 24.50         | 24.00 | 0.423          | 0.475  | 0.238           | 0.267  | 107      |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.335          | 0.376  | 0.187           | 0.210  |          |
|         |                        |      |            |            | Left Tilt     | 27710 | 2310.0      | 1             | 25        | 24.50         | 24.00 | 0.148          | 0.166  | 0.074           | 0.083  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.128          | 0.144  | 0.063           | 0.071  |          |
|         |                        |      |            |            | Right Touch   | 27710 | 2310.0      | 1             | 25        | 24.50         | 24.00 | 0.199          | 0.223  | 0.114           | 0.128  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.157          | 0.176  | 0.089           | 0.100  |          |
|         | Body & Hotspot         | QPSK | Mode B     | 5          | Rear          | 27710 | 2310.0      | 1             | 25        | 24.50         | 24.00 | 0.259          | 0.291  | 0.124           | 0.139  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 23.50         | 23.00 | 0.199          | 0.223  | 0.096           | 0.107  |          |
|         |                        |      |            |            |               |       |             | 50            | 0         | 20.75         | 20.30 | 0.881          | 0.977  | 0.416           | 0.461  |          |
|         |                        |      |            |            | Front         | 27710 | 2310.0      | 1             | 25        | 20.75         | 20.60 | 0.944          | 0.977  | 0.442           | 0.458  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 20.75         | 20.40 | 0.914          | 0.991  | 0.428           | 0.464  | 108      |
|         |                        |      |            |            |               |       |             | 50            | 0         | 20.75         | 20.30 | 0.881          | 0.977  | 0.416           | 0.461  |          |
|         | Hotspot                | QPSK | Mode B     | 5          | Edge 3        | 27710 | 2310.0      | 1             | 25        | 20.75         | 20.60 | 0.632          | 0.654  | 0.312           | 0.323  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 20.75         | 20.40 | 0.629          | 0.682  | 0.310           | 0.336  |          |
|         |                        |      |            |            | Edge 4        | 27710 | 2310.0      | 1             | 25        | 20.75         | 20.60 | 0.303          | 0.314  | 0.165           | 0.171  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 20.75         | 20.40 | 0.300          | 0.325  | 0.164           | 0.178  |          |
|         |                        |      |            |            |               |       |             | 1             | 25        | 20.75         | 20.60 | 0.315          | 0.326  | 0.159           | 0.165  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 20.75         | 20.40 | 0.320          | 0.347  | 0.167           | 0.181  |          |
| Antenna | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offset | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|         |                        |      |            |            |               |       |             |               |           | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT4    | Head                   | QPSK | Mode A     | 0          | Left Touch    | 27710 | 2310.0      | 1             | 25        | 17.50         | 17.50 | 0.837          | 0.837  | 0.396           | 0.396  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 17.50         | 17.50 | 0.840          | 0.840  | 0.397           | 0.397  |          |
|         |                        |      |            |            | Left Tilt     | 27710 | 2310.0      | 50            | 0         | 17.50         | 17.50 | 0.844          | 0.844  | 0.399           | 0.399  | 109      |
|         |                        |      |            |            |               |       |             | 1             | 25        | 17.50         | 17.50 | 0.524          | 0.524  | 0.266           | 0.266  |          |
|         |                        |      |            |            | Right Touch   | 27710 | 2310.0      | 25            | 12        | 17.50         | 17.50 | 0.514          | 0.514  | 0.262           | 0.262  |          |
|         |                        |      |            |            |               |       |             | 1             | 25        | 17.50         | 17.50 | 0.225          | 0.225  | 0.120           | 0.120  |          |
|         | Body & Hotspot         | QPSK | Mode B     | 5          | Right Tilt    | 27710 | 2310.0      | 25            | 12        | 17.50         | 17.50 | 0.224          | 0.224  | 0.120           | 0.120  |          |
|         |                        |      |            |            |               |       |             | 1             | 25        | 17.50         | 17.50 | 0.221          | 0.221  | 0.112           | 0.112  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 17.50         | 17.50 | 0.218          | 0.218  | 0.111           | 0.111  |          |
|         |                        |      |            |            | Rear          | 27710 | 2310.0      | 1             | 25        | 19.00         | 18.90 | 0.875          | 0.895  | 0.420           | 0.430  | 110      |
|         |                        |      |            |            |               |       |             | 25            | 12        | 19.00         | 18.94 | 0.872          | 0.884  | 0.417           | 0.423  |          |
|         |                        |      |            |            |               |       |             | 50            | 0         | 19.00         | 18.93 | 0.863          | 0.877  | 0.415           | 0.422  |          |
|         |                        |      |            |            | Front         | 27710 | 2310.0      | 1             | 25        | 19.00         | 18.90 | 0.575          | 0.588  | 0.290           | 0.297  |          |
|         |                        |      |            |            |               |       |             | 25            | 12        | 19.00         | 18.94 | 0.576          | 0.584  | 0.292           | 0.296  |          |
|         |                        |      |            |            |               |       |             | 1             | 25        | 19.00         | 18.90 | 0.284          | 0.291  | 0.137           | 0.140  |          |
|         | Hotspot                | QPSK | Mode B     | 5          | Edge 1        | 27710 | 2310.0      | 25            | 12        | 19.00         | 18.94 | 0.279          | 0.283  | 0.135           | 0.137  |          |
|         |                        |      |            |            |               |       |             | 1             | 25        | 19.00         | 18.90 | 0.404          | 0.413  | 0.211           | 0.216  |          |
|         |                        |      |            |            | Edge 2        | 27710 | 2310.0      | 25            | 12        | 19.00         | 18.94 | 0.406          | 0.412  | 0.209           | 0.212  |          |

**10.17. LTE Band 41 Power Class 3 (20MHz Bandwidth)**

| Antenna | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offset | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|------------------------|------|------------|------------|---------------|-------|-------------|---------------|-----------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |                        |      |            |            |               |       |             |               |           | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT1    | Head                   | QPSK | Mode A     | 0          | Left Touch    | 40620 | 2593.0      | 1             | 49        | 25.70         | 25.60 | 0.181          | 0.185  | 0.092           | 0.094  | 111      |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.70         | 24.50 | 0.164          | 0.172  | 0.083           | 0.087  |          |
|         |                        |      |            |            | Left Tilt     | 40620 | 2593.0      | 1             | 49        | 25.70         | 25.60 | 0.076          | 0.078  | 0.033           | 0.034  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.70         | 24.50 | 0.063          | 0.066  | 0.028           | 0.029  |          |
|         |                        |      |            |            | Right Touch   | 40620 | 2593.0      | 1             | 49        | 25.70         | 25.60 | 0.123          | 0.126  | 0.070           | 0.072  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.70         | 24.50 | 0.097          | 0.102  | 0.055           | 0.058  |          |
|         |                        |      |            |            | Right Tilt    | 40620 | 2593.0      | 1             | 49        | 25.70         | 25.60 | 0.101          | 0.103  | 0.044           | 0.045  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.70         | 24.50 | 0.046          | 0.048  | 0.021           | 0.022  |          |
|         | Body & Hotspot         | QPSK | Mode B     | 5          | Rear          | 39750 | 2506.0      | 1             | 49        | 24.00         | 23.72 | 0.931          | 0.993  | 0.393           | 0.419  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.00         | 23.75 | 0.942          | 0.998  | 0.417           | 0.442  | 112      |
|         |                        |      |            |            |               | 40185 | 2549.5      | 1             | 49        | 24.00         | 23.90 | 0.965          | 0.987  | 0.394           | 0.403  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.00         | 23.74 | 0.860          | 0.913  | 0.363           | 0.385  |          |
|         |                        |      |            |            |               | 40620 | 2593.0      | 1             | 49        | 24.00         | 23.75 | 0.887          | 0.940  | 0.351           | 0.372  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.00         | 23.65 | 0.838          | 0.908  | 0.339           | 0.367  |          |
|         |                        |      |            |            |               |       |             | 100           | 0         | 24.00         | 23.58 | 0.820          | 0.903  | 0.317           | 0.349  |          |
|         |                        |      |            |            |               |       |             | 1             | 49        | 24.00         | 23.72 | 0.927          | 0.989  | 0.357           | 0.381  |          |
|         |                        |      |            |            | Front         | 41055 | 2636.5      | 50            | 24        | 24.00         | 23.65 | 0.911          | 0.987  | 0.349           | 0.378  |          |
|         |                        |      |            |            |               |       |             | 1             | 49        | 24.00         | 23.71 | 0.915          | 0.978  | 0.354           | 0.378  |          |
|         |                        |      |            |            |               | 41490 | 2680.0      | 50            | 24        | 24.00         | 24.00 | 0.977          | 0.977  | 0.381           | 0.381  |          |
|         |                        |      |            |            |               |       |             | 1             | 49        | 24.00         | 23.75 | 0.386          | 0.409  | 0.163           | 0.173  |          |
|         |                        |      |            |            |               | 40620 | 2593.0      | 50            | 24        | 24.00         | 23.65 | 0.386          | 0.418  | 0.163           | 0.177  |          |
|         |                        |      |            |            |               |       |             | 1             | 49        | 24.00         | 23.75 | 0.298          | 0.316  | 0.133           | 0.141  |          |
|         | Hotspot                | QPSK | Mode B     | 5          | Edge 2        | 40620 | 2593.0      | 50            | 24        | 24.00         | 23.65 | 0.292          | 0.317  | 0.131           | 0.142  |          |
|         |                        |      |            |            |               |       |             | 1             | 49        | 24.00         | 23.72 | 0.596          | 0.636  | 0.221           | 0.236  |          |
|         |                        |      |            |            | Edge 3        | 39750 | 2506.0      | 50            | 24        | 24.00         | 23.75 | 0.596          | 0.631  | 0.242           | 0.256  |          |
|         |                        |      |            |            |               |       |             | 1             | 49        | 24.00         | 23.90 | 0.812          | 0.831  | 0.286           | 0.293  |          |
|         |                        |      |            |            |               | 40185 | 2549.5      | 50            | 24        | 24.00         | 23.74 | 0.830          | 0.881  | 0.289           | 0.307  |          |
|         |                        |      |            |            |               |       |             | 1             | 49        | 24.00         | 23.75 | 0.795          | 0.842  | 0.282           | 0.299  |          |
|         |                        |      |            |            |               | 40620 | 2593.0      | 50            | 24        | 24.00         | 23.65 | 0.768          | 0.832  | 0.242           | 0.262  |          |
|         |                        |      |            |            |               |       |             | 100           | 0         | 24.00         | 23.58 | 0.768          | 0.846  | 0.240           | 0.264  |          |
|         |                        |      |            |            |               |       |             | 1             | 49        | 24.00         | 23.72 | 0.749          | 0.799  | 0.267           | 0.285  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.00         | 23.65 | 0.755          | 0.818  | 0.269           | 0.292  |          |
|         |                        |      |            |            |               | 41055 | 2636.5      | 1             | 49        | 24.00         | 23.71 | 0.727          | 0.777  | 0.257           | 0.275  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.00         | 24.00 | 0.729          | 0.729  | 0.257           | 0.257  |          |
|         |                        |      |            |            | Edge 4        | 40620 | 2593.0      | 1             | 49        | 24.00         | 23.75 | 0.107          | 0.113  | 0.050           | 0.053  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.00         | 23.65 | 0.107          | 0.116  | 0.041           | 0.044  |          |

| Antenna | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offset | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|------------------------|------|------------|------------|---------------|-------|-------------|---------------|-----------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |                        |      |            |            |               |       |             |               |           | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT2    | Head                   | QPSK | Mode A     | 0          | Left Touch    | 40620 | 2593.0      | 1             | 49        | 20.00         | 19.80 | 0.735          | 0.770  | 0.321           | 0.336  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 20.00         | 19.80 | 0.745          | 0.780  | 0.325           | 0.340  |          |
|         |                        |      |            |            | Left Tilt     | 39750 | 2506.0      | 1             | 49        | 20.00         | 19.70 | 0.771          | 0.826  | 0.324           | 0.347  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 20.00         | 19.60 | 0.796          | 0.873  | 0.332           | 0.364  |          |
|         |                        |      |            |            |               | 40185 | 2549.5      | 1             | 49        | 20.00         | 19.60 | 0.808          | 0.886  | 0.350           | 0.384  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 20.00         | 19.70 | 0.782          | 0.838  | 0.321           | 0.344  |          |
|         |                        |      |            |            |               | 40620 | 2593.0      | 1             | 49        | 20.00         | 19.80 | 0.827          | 0.866  | 0.339           | 0.355  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 20.00         | 19.80 | 0.847          | 0.887  | 0.347           | 0.363  |          |
|         |                        |      |            |            |               |       |             | 100           | 0         | 20.00         | 19.75 | 0.846          | 0.896  | 0.346           | 0.367  | 113      |
|         |                        |      |            |            |               | 41055 | 2636.5      | 1             | 49        | 20.00         | 20.00 | 0.888          | 0.888  | 0.359           | 0.359  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 20.00         | 20.00 | 0.886          | 0.886  | 0.359           | 0.359  |          |
|         |                        |      |            |            |               | 41490 | 2680.0      | 1             | 49        | 20.00         | 20.00 | 0.891          | 0.891  | 0.354           | 0.354  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 20.00         | 20.00 | 0.894          | 0.894  | 0.356           | 0.356  |          |
|         |                        |      |            |            | Right Touch   | 40620 | 2593.0      | 1             | 49        | 20.00         | 19.80 | 0.591          | 0.619  | 0.248           | 0.260  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 20.00         | 19.80 | 0.597          | 0.625  | 0.245           | 0.257  |          |
|         |                        |      |            |            | Right Tilt    | 40620 | 2593.0      | 1             | 49        | 20.00         | 19.80 | 0.661          | 0.692  | 0.263           | 0.275  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 20.00         | 19.80 | 0.677          | 0.709  | 0.270           | 0.283  |          |
|         | Body & Hotspot         | QPSK | Mode B     | 5          | Rear          | 39750 | 2506.0      | 1             | 49        | 22.75         | 22.75 | 0.899          | 0.899  | 0.423           | 0.423  | 114      |
|         |                        |      |            |            |               |       |             | 50            | 24        | 22.25         | 22.25 | 0.816          | 0.816  | 0.378           | 0.378  |          |
|         |                        |      |            |            |               | 40185 | 2549.5      | 1             | 49        | 22.75         | 22.50 | 0.823          | 0.872  | 0.382           | 0.405  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 22.25         | 22.11 | 0.842          | 0.870  | 0.335           | 0.346  |          |
|         |                        |      |            |            |               | 40620 | 2593.0      | 1             | 49        | 22.75         | 22.70 | 0.824          | 0.834  | 0.369           | 0.373  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 22.25         | 22.15 | 0.803          | 0.822  | 0.365           | 0.374  |          |
|         |                        |      |            |            |               |       |             | 100           | 0         | 22.25         | 22.20 | 0.879          | 0.889  | 0.389           | 0.394  |          |
|         |                        |      |            |            |               | 41055 | 2636.5      | 1             | 49        | 22.75         | 22.40 | 0.631          | 0.684  | 0.285           | 0.309  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 22.25         | 22.10 | 0.610          | 0.631  | 0.263           | 0.272  |          |
|         |                        |      |            |            |               | 41490 | 2680.0      | 1             | 49        | 22.75         | 22.40 | 0.443          | 0.480  | 0.202           | 0.219  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 22.25         | 22.12 | 0.570          | 0.587  | 0.226           | 0.233  |          |
|         |                        |      |            |            | Front         | 40620 | 2593.0      | 1             | 49        | 22.75         | 22.70 | 0.436          | 0.441  | 0.188           | 0.190  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 22.25         | 22.15 | 0.344          | 0.352  | 0.147           | 0.150  |          |
|         | Hotspot                | QPSK | Mode B     | 5          | Edge 1        | 40620 | 2593.0      | 1             | 49        | 22.75         | 22.70 | 0.783          | 0.792  | 0.282           | 0.285  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 22.25         | 22.15 | 0.783          | 0.801  | 0.302           | 0.309  |          |
|         |                        |      |            |            | Edge 2        | 40620 | 2593.0      | 1             | 49        | 22.75         | 22.70 | 0.100          | 0.101  | 0.043           | 0.043  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 22.25         | 22.15 | 0.077          | 0.079  | 0.036           | 0.037  |          |
|         |                        |      |            |            | Edge 4        | 40620 | 2593.0      | 1             | 49        | 22.75         | 22.70 | 0.696          | 0.704  | 0.324           | 0.328  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 22.25         | 22.15 | 0.554          | 0.567  | 0.256           | 0.262  |          |

| Antenna | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offset | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|------------------------|------|------------|------------|---------------|-------|-------------|---------------|-----------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |                        |      |            |            |               |       |             |               |           | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT3    | Head                   | QPSK | Mode A     | 0          | Left Touch    | 40620 | 2593.0      | 1             | 49        | 25.50         | 25.47 | 0.295          | 0.297  | 0.155           | 0.156  | 115      |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.50         | 24.44 | 0.232          | 0.235  | 0.122           | 0.124  |          |
|         |                        |      |            |            | Left Tilt     | 40620 | 2593.0      | 1             | 49        | 25.50         | 25.47 | 0.069          | 0.069  | 0.034           | 0.034  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.50         | 24.44 | 0.060          | 0.061  | 0.031           | 0.031  |          |
|         |                        |      |            |            | Right Touch   | 40620 | 2593.0      | 1             | 49        | 25.50         | 25.47 | 0.153          | 0.154  | 0.086           | 0.087  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.50         | 24.44 | 0.123          | 0.125  | 0.068           | 0.069  |          |
|         |                        |      |            |            | Right Tilt    | 40620 | 2593.0      | 1             | 49        | 25.50         | 25.47 | 0.112          | 0.113  | 0.056           | 0.056  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.50         | 24.44 | 0.085          | 0.086  | 0.042           | 0.043  |          |
|         | Body & Hotspot         | QPSK | Mode B     | 5          | Rear          | 39750 | 2506.0      | 1             | 49        | 25.00         | 25.00 | 0.876          | 0.876  | 0.363           | 0.363  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.50         | 24.30 | 0.887          | 0.929  | 0.378           | 0.396  |          |
|         |                        |      |            |            |               | 40185 | 2549.5      | 1             | 49        | 25.00         | 24.90 | 0.834          | 0.853  | 0.362           | 0.370  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.50         | 24.00 | 0.879          | 0.986  | 0.377           | 0.423  |          |
|         |                        |      |            |            |               | 40620 | 2593.0      | 1             | 49        | 25.00         | 24.97 | 0.828          | 0.834  | 0.376           | 0.379  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.50         | 24.00 | 0.856          | 0.960  | 0.394           | 0.442  |          |
|         |                        |      |            |            | Front         | 41055 | 2636.5      | 100           | 0         | 24.50         | 24.20 | 0.875          | 0.938  | 0.408           | 0.437  |          |
|         |                        |      |            |            |               |       |             | 1             | 49        | 25.00         | 24.93 | 0.913          | 0.928  | 0.390           | 0.396  |          |
|         |                        |      |            |            |               | 41490 | 2680.0      | 50            | 24        | 24.50         | 24.30 | 0.935          | 0.979  | 0.410           | 0.429  |          |
|         |                        |      |            |            |               |       |             | 1             | 49        | 25.00         | 25.00 | 0.986          | 0.986  | 0.437           | 0.437  |          |
|         |                        |      |            |            |               | 41055 | 2636.5      | 50            | 24        | 24.50         | 24.30 | 0.935          | 0.979  | 0.410           | 0.429  |          |
|         |                        |      |            |            |               |       |             | 1             | 49        | 25.00         | 24.97 | 0.602          | 0.606  | 0.266           | 0.268  | 116      |
|         | Hotspot                | QPSK | Mode B     | 5          | Edge 3        | 40620 | 2593.0      | 1             | 49        | 25.00         | 24.97 | 0.399          | 0.402  | 0.161           | 0.162  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.50         | 24.00 | 0.323          | 0.362  | 0.158           | 0.177  |          |
|         |                        |      |            |            | Edge 4        | 40620 | 2593.0      | 1             | 49        | 25.00         | 24.97 | 0.720          | 0.725  | 0.287           | 0.289  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.50         | 24.00 | 0.571          | 0.641  | 0.227           | 0.255  |          |
|         |                        |      |            |            | Edge 3        | 40620 | 2593.0      | 1             | 49        | 25.00         | 24.97 | 0.399          | 0.402  | 0.161           | 0.162  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.50         | 24.00 | 0.323          | 0.362  | 0.158           | 0.177  |          |
|         |                        |      |            |            | Edge 4        | 40620 | 2593.0      | 1             | 49        | 25.00         | 24.97 | 0.720          | 0.725  | 0.287           | 0.289  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.50         | 24.00 | 0.571          | 0.641  | 0.227           | 0.255  |          |
| ANT4    | Head                   | QPSK | Mode A     | 0          | Left Touch    | 39750 | 2506.0      | 1             | 49        | 19.25         | 18.90 | 0.755          | 0.818  | 0.363           | 0.393  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 19.25         | 18.80 | 0.746          | 0.827  | 0.357           | 0.396  |          |
|         |                        |      |            |            |               | 40185 | 2549.5      | 1             | 49        | 19.25         | 18.90 | 0.680          | 0.737  | 0.322           | 0.349  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 19.25         | 18.80 | 0.690          | 0.765  | 0.325           | 0.360  |          |
|         |                        |      |            |            |               | 40620 | 2593.0      | 1             | 49        | 19.25         | 19.10 | 0.786          | 0.814  | 0.364           | 0.377  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 19.25         | 19.10 | 0.804          | 0.832  | 0.368           | 0.381  |          |
|         |                        |      |            |            |               | 41055 | 2636.5      | 100           | 0         | 19.25         | 19.10 | 0.791          | 0.819  | 0.358           | 0.371  |          |
|         |                        |      |            |            |               |       |             | 1             | 49        | 19.25         | 19.10 | 0.853          | 0.883  | 0.381           | 0.394  |          |
|         |                        |      |            |            | Left Tilt     | 41490 | 2680.0      | 50            | 24        | 19.25         | 19.10 | 0.861          | 0.891  | 0.380           | 0.393  | 117      |
|         |                        |      |            |            |               |       |             | 1             | 49        | 19.25         | 18.90 | 0.800          | 0.867  | 0.363           | 0.393  |          |
|         |                        |      |            |            |               | 41055 | 2636.5      | 50            | 24        | 19.25         | 19.10 | 0.861          | 0.891  | 0.380           | 0.393  |          |
|         |                        |      |            |            |               |       |             | 1             | 49        | 19.25         | 18.90 | 0.800          | 0.867  | 0.363           | 0.393  |          |
|         |                        |      |            |            |               | 41490 | 2680.0      | 50            | 24        | 19.25         | 19.20 | 0.880          | 0.890  | 0.385           | 0.389  |          |
|         |                        |      |            |            |               |       |             | 1             | 49        | 19.25         | 19.10 | 0.493          | 0.510  | 0.226           | 0.234  |          |
|         | Body & Hotspot         | QPSK | Mode B     | 5          | Right Touch   | 40620 | 2593.0      | 50            | 24        | 19.25         | 19.10 | 0.497          | 0.514  | 0.228           | 0.236  |          |
|         |                        |      |            |            |               |       |             | 1             | 49        | 19.25         | 19.10 | 0.211          | 0.218  | 0.106           | 0.110  |          |
|         |                        |      |            |            | Right Tilt    | 40620 | 2593.0      | 50            | 24        | 19.25         | 19.10 | 0.206          | 0.213  | 0.103           | 0.107  |          |
|         |                        |      |            |            |               |       |             | 1             | 49        | 19.25         | 19.10 | 0.278          | 0.288  | 0.140           | 0.145  |          |
|         |                        |      |            |            | Right Touch   | 40620 | 2593.0      | 50            | 24        | 19.25         | 19.10 | 0.206          | 0.213  | 0.103           | 0.107  |          |
|         |                        |      |            |            |               |       |             | 1             | 49        | 19.25         | 19.10 | 0.278          | 0.288  | 0.140           | 0.145  |          |
|         | Body & Hotspot         | QPSK | Mode B     | 5          | Rear          | 39750 | 2506.0      | 50            | 24        | 21.00         | 20.70 | 0.750          | 0.804  | 0.361           | 0.387  |          |
|         |                        |      |            |            |               |       |             | 1             | 49        | 21.00         | 20.60 | 0.752          | 0.825  | 0.361           | 0.396  |          |
|         |                        |      |            |            |               | 40185 | 2549.5      | 1             | 49        | 21.00         | 20.50 | 0.691          | 0.775  | 0.325           | 0.365  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.00         | 20.50 | 0.699          | 0.784  | 0.327           | 0.367  |          |
|         |                        |      |            |            |               | 40620 | 2593.0      | 1             | 49        | 21.00         | 20.60 | 0.739          | 0.810  | 0.344           | 0.377  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.00         | 20.60 | 0.749          | 0.821  | 0.346           | 0.379  |          |
|         |                        |      |            |            | Front         | 41055 | 2636.5      | 100           | 0         | 21.00         | 20.60 | 0.744          | 0.816  | 0.324           | 0.355  |          |
|         |                        |      |            |            |               |       |             | 1             | 49        | 21.00         | 20.90 | 0.756          | 0.774  | 0.331           | 0.339  |          |
|         |                        |      |            |            |               | 41490 | 2680.0      | 50            | 24        | 21.00         | 20.80 | 0.774          | 0.810  | 0.340           | 0.356  |          |
|         |                        |      |            |            |               |       |             | 1             | 49        | 21.00         | 20.70 | 0.804          | 0.862  | 0.371           | 0.398  |          |
|         |                        |      |            |            |               | 41055 | 2636.5      | 50            | 24        | 21.00         | 20.70 | 0.807          | 0.865  | 0.372           | 0.399  | 118      |
|         |                        |      |            |            |               |       |             | 1             | 49        | 21.00         | 20.60 | 0.336          | 0.368  | 0.168           | 0.184  |          |
|         | Hotspot                | QPSK | Mode B     | 5          | Edge 1        | 40620 | 2593.0      | 50            | 24        | 21.00         | 20.60 | 0.325          | 0.356  | 0.164           | 0.180  |          |
|         |                        |      |            |            |               |       |             | 1             | 49        | 21.00         | 20.60 | 0.094          | 0.103  | 0.024           | 0.026  |          |
|         |                        |      |            |            | Edge 2        | 40620 | 2593.0      | 50            | 24        | 21.00         | 20.60 | 0.195          | 0.214  | 0.070           | 0.077  |          |
|         |                        |      |            |            |               |       |             | 1             | 49        | 21.00         | 20.60 | 0.693          | 0.760  | 0.329           | 0.361  |          |
|         |                        |      |            |            | Edge 1        | 40620 | 2593.0      | 50            | 24        | 21.00         | 20.60 | 0.094          | 0.103  | 0.024           | 0.026  |          |
|         |                        |      |            |            |               |       |             | 1             | 49        | 21.00         | 20.60 | 0.693          | 0.760  | 0.329           | 0.361  |          |

**LTE Band 41 Power Class 2 (20MHz Bandwidth)**

According to Section 9.4, SAR evaluation for PC2 is only required when its Maximum output power (Tune-up Limit) is higher from PC3.

**LTE Band 41 Power Class 2 SAR Measured Results**

| Antenna | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offset | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|------------------------|------|------------|------------|---------------|-------|-------------|---------------|-----------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |                        |      |            |            |               |       |             |               |           | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT1    | Head                   | QPSK | Mode A     | 0          | Left Touch    | 40620 | 2593.0      | 1             | 49        | 28.70         | 28.20 | 0.201          | 0.226  | 0.105           | 0.118  |          |
| ANT3    | Head                   | QPSK | Mode A     | 0          | Left Touch    | 40620 | 2593.0      | 1             | 49        | 28.00         | 27.70 | 0.136          | 0.146  | 0.079           | 0.085  |          |

From May 2017 TCB Workshop, SAR tested were performed using Power Class 3. SAR test for Power Class 2 is tested using the highest SAR test configuration in Power Class 3 for each LTE configuration and exposure condition combination. According to the highest time averaged power for UL-DL configurations, configuration # 1 with duty cycle 43.3% is used for Power Class 2 SAR test.

Additional SAR testing for Power Class 2 is not required when:

- The reported SAR vs. output power can be linearly scaled with < 10% discrepancy between power classes and all reported SAR are < 1.4 W/kg

**Reported SAR vs. Output Power linearly scaled**

| Antenna | RF Exposure Conditions | Power Class 2 |                     |                       |                         | Power Class 3 |                     |                       |                         | PC2 linearly scaled Reported SAR (W/kg) | Linearly scaled (<10%) |
|---------|------------------------|---------------|---------------------|-----------------------|-------------------------|---------------|---------------------|-----------------------|-------------------------|-----------------------------------------|------------------------|
|         |                        | Duty Cycle    | Tune-up Power (dBm) | Frame Avg. Power (mW) | Reported 1-g SAR (W/kg) | Duty Cycle    | Tune-up Power (dBm) | Frame Avg. Power (mW) | Reported 1-g SAR (W/kg) |                                         |                        |
| ANT1    | Head                   | 43.3%         | 28.70               | 320.99                | 0.226                   | 63.3%         | 25.70               | 235.18                | 0.185                   | 0.252                                   | -10.49%                |
| ANT3    | Head                   | 43.3%         | 28.00               | 273.20                | 0.146                   | 63.3%         | 25.50               | 224.60                | 0.297                   | 0.361                                   | -59.59%                |

**Conclusion:**

SAR test for Power Class 2 is not required base on the reported SAR <1.4 W/kg and reported SAR vs. output power linearly scaled <10%.

**UL CA 41C Power Class 3**

| Antenna | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | PCC UL |             |               |           | SCC UL |             |               |           | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|------------------------|------|------------|------------|---------------|--------|-------------|---------------|-----------|--------|-------------|---------------|-----------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |                        |      |            |            |               | Ch #.  | Freq. (MHz) | RB Allocation | RB offset | Ch #.  | Freq. (MHz) | RB Allocation | RB offset | Tune-up limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT 1   | Head                   | QPSK | Mode A     | 0          | Left Touch    | 40620  | 2593.0      | 1             | 99        | 40818  | 2612.8      | 1             | 0         | 25.00         | 24.87 | 0.133          | 0.137  | 0.072           | 0.074  |          |
| ANT 1   | Body                   | QPSK | Mode B     | 5          | Rear          | 39750  | 2506.0      | 1             | 99        | 39948  | 2525.8      | 1             | 0         | 24.00         | 23.89 | 0.819          | 0.840  | 0.319           | 0.327  |          |
| ANT 2   | Head                   | QPSK | Mode A     | 0          | Left Tilt     | 40620  | 2593.0      | 1             | 99        | 40818  | 2612.8      | 1             | 0         | 20.00         | 19.63 | 0.762          | 0.830  | 0.308           | 0.335  |          |
| ANT 2   | Body                   | QPSK | Mode B     | 5          | Rear          | 39750  | 2506.0      | 1             | 99        | 39948  | 2525.8      | 1             | 0         | 21.50         | 21.47 | 0.883          | 0.889  | 0.403           | 0.406  |          |
| ANT 3   | Head                   | QPSK | Mode A     | 0          | Left Touch    | 40620  | 2593.0      | 1             | 99        | 40818  | 2612.8      | 1             | 0         | 24.50         | 24.41 | 0.235          | 0.240  | 0.127           | 0.130  |          |
| ANT 3   | Body                   | QPSK | Mode B     | 5          | Rear          | 41490  | 2680.0      | 1             | 0         | 41292  | 2660.2      | 1             | 99        | 24.50         | 24.00 | 0.794          | 0.891  | 0.348           | 0.390  |          |
| ANT 4   | Head                   | QPSK | Mode A     | 0          | Left Touch    | 41055  | 2636.5      | 1             | 99        | 41253  | 2656.3      | 1             | 0         | 19.25         | 19.25 | 0.682          | 0.682  | 0.310           | 0.310  |          |
| ANT 4   | Body                   | QPSK | Mode B     | 5          | Rear          | 41490  | 2680.0      | 1             | 0         | 41292  | 2660.2      | 1             | 99        | 21.00         | 20.94 | 0.762          | 0.773  | 0.351           | 0.356  |          |

**Note(s):**

PCC RB allocation setting for UL CA has been adjusted based on the worst-case power.

Additional SAR for UL CA PC2 is not required. Test reduction has been applied base on standalone SAR.

**UL CA 41C Power Class 2**

According to Section 9.5, SAR evaluation for PC2 is only required when its Maximum output power (Tune-up Limit) is higher from PC3.

**LTE Band CA 41C Power Class 2 SAR Measured Results**

| Antenna | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | PCC UL |             |               |           | SCC UL |             |               |           | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|------------------------|------|------------|------------|---------------|--------|-------------|---------------|-----------|--------|-------------|---------------|-----------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |                        |      |            |            |               | Ch #.  | Freq. (MHz) | RB Allocation | RB offset | Ch #.  | Freq. (MHz) | RB Allocation | RB offset | Tune-up limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT 1   | Head                   | QPSK | Mode A     | 0          | Left Touch    | 40620  | 2593.0      | 1             | 99        | 40818  | 2612.8      | 1             | 0         | 27.00         | 26.88 | 0.130          | 0.134  | 0.067           | 0.069  |          |
| ANT 2   | Body                   | QPSK | Mode B     | 5          | Rear          | 39750  | 2506.0      | 1             | 99        | 39948  | 2525.8      | 1             | 0         | 22.75         | 22.70 | 0.801          | 0.810  | 0.343           | 0.347  |          |
| ANT 3   | Head                   | QPSK | Mode A     | 0          | Left Touch    | 40620  | 2593.0      | 1             | 99        | 40818  | 2612.8      | 1             | 0         | 26.50         | 26.30 | 0.263          | 0.275  | 0.134           | 0.140  |          |
| ANT 3   | Body                   | QPSK | Mode B     | 5          | Rear          | 41490  | 2680.0      | 1             | 0         | 41292  | 2660.2      | 1             | 99        | 25.00         | 25.00 | 0.698          | 0.698  | 0.287           | 0.287  |          |

From May 2017 TCB Workshop, SAR tested were performed using Power Class 3. SAR test for Power Class 2 is tested using the highest SAR test configuration in Power Class 3 for each LTE configuration and exposure condition combination. According to the highest time averaged power for UL-DL configurations, configuration # 1 with duty cycle 43.3% is used for Power Class 2 SAR test.

Additional SAR testing for Power Class 2 is not required when:

- The reported SAR vs. output power can be linearly scaled with < 10% discrepancy between power classes and all reported SAR are < 1.4 W/kg

**Reported SAR vs. Output Power linearly scaled**

| Antenna | RF Exposure Conditions | Power Class 2 |                     |                       |                         | Power Class 3 |                     |                       |                         | PC2 linearly scaled Reported SAR (W/kg) | Linearly scaled (<10%) |
|---------|------------------------|---------------|---------------------|-----------------------|-------------------------|---------------|---------------------|-----------------------|-------------------------|-----------------------------------------|------------------------|
|         |                        | Duty Cycle    | Tune-up Power (dBm) | Frame Avg. Power (mW) | Reported 1-g SAR (W/kg) | Duty Cycle    | Tune-up Power (dBm) | Frame Avg. Power (mW) | Reported 1-g SAR (W/kg) |                                         |                        |
| ANT1    | Head                   | 43.3%         | 27.00               | 217.01                | 0.134                   | 63.3%         | 25.00               | 200.17                | 0.137                   | 0.149                                   | -9.78%                 |
| ANT2    | Body                   | 43.3%         | 22.75               | 81.56                 | 0.810                   | 63.3%         | 21.50               | 89.41                 | 0.889                   | 0.811                                   | -0.12%                 |
| ANT3    | Head                   | 43.3%         | 26.50               | 193.41                | 0.275                   | 63.3%         | 24.50               | 178.40                | 0.240                   | 0.260                                   | 5.69%                  |
| ANT3    | Body                   | 43.3%         | 25.00               | 136.93                | 0.698                   | 63.3%         | 24.50               | 178.40                | 0.891                   | 0.684                                   | 2.07%                  |

**Conclusion:**

SAR test for Power Class 2 is not required base on the reported SAR <1.4 W/kg and reported SAR vs. output power linearly scaled <10%.

**10.18. LTE Band 48 (20MHz Bandwidth)**

| Antenna | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offset | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|------------------------|------|------------|------------|---------------|-------|-------------|---------------|-----------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |                        |      |            |            |               |       |             |               |           | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT1    | Head                   | QPSK | Mode A     | 0          | Left Touch    | 56207 | 3646.7      | 1             | 49        | 25.70         | 25.40 | 0.158          | 0.169  | 0.068           | 0.073  | 119      |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.70         | 24.50 | 0.125          | 0.131  | 0.053           | 0.055  |          |
|         |                        |      |            |            | Left Tilt     | 56207 | 3646.7      | 1             | 49        | 25.70         | 25.40 | 0.033          | 0.035  | 0.009           | 0.010  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.70         | 24.50 | 0.026          | 0.027  | 0.007           | 0.007  |          |
|         |                        |      |            |            | Right Touch   | 56207 | 3646.7      | 1             | 49        | 25.70         | 25.40 | 0.082          | 0.088  | 0.025           | 0.027  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.70         | 24.50 | 0.063          | 0.066  | 0.019           | 0.019  |          |
|         |                        |      |            |            | Right Tilt    | 56207 | 3646.7      | 1             | 49        | 25.70         | 25.40 | 0.074          | 0.079  | 0.020           | 0.021  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.70         | 24.50 | 0.056          | 0.058  | 0.016           | 0.016  |          |
|         | Body & Hotspot         | QPSK | Mode B     | 5          | Rear          | 55340 | 3560.0      | 1             | 49        | 24.00         | 23.98 | 0.672          | 0.675  | 0.262           | 0.263  |          |
|         |                        |      |            |            |               | 55773 | 3603.3      | 1             | 49        | 24.00         | 24.00 | 0.853          | 0.853  | 0.343           | 0.343  |          |
|         |                        |      |            |            |               | 56207 | 3646.7      | 1             | 49        | 24.00         | 24.00 | 0.970          | 0.970  | 0.350           | 0.350  | 120      |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.00         | 23.60 | 0.712          | 0.781  | 0.217           | 0.238  |          |
|         |                        |      |            |            | Front         | 56207 | 3646.7      | 1             | 49        | 24.00         | 23.90 | 0.679          | 0.695  | 0.231           | 0.236  |          |
|         |                        |      |            |            |               |       |             | 1             | 49        | 24.00         | 24.00 | 0.424          | 0.424  | 0.148           | 0.148  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.00         | 23.60 | 0.326          | 0.357  | 0.115           | 0.126  |          |
|         |                        |      |            |            |               |       |             | 1             | 49        | 24.00         | 24.00 | 0.136          | 0.136  | 0.056           | 0.056  |          |
| ANT6    | Head                   | QPSK | Mode A     | 0          | Left Touch    | 56207 | 3646.7      | 1             | 49        | 22.50         | 22.40 | 0.093          | 0.095  | 0.027           | 0.028  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.50         | 21.20 | 0.075          | 0.080  | 0.021           | 0.023  |          |
|         |                        |      |            |            | Left Tilt     | 56207 | 3646.7      | 1             | 49        | 22.50         | 22.40 | 0.145          | 0.148  | 0.037           | 0.038  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.50         | 21.20 | 0.117          | 0.125  | 0.028           | 0.030  |          |
|         |                        |      |            |            | Right Touch   | 56207 | 3646.7      | 1             | 49        | 22.50         | 22.40 | 0.170          | 0.174  | 0.068           | 0.070  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.50         | 21.20 | 0.134          | 0.144  | 0.053           | 0.057  |          |
|         |                        |      |            |            | Right Tilt    | 56207 | 3646.7      | 1             | 49        | 22.50         | 22.40 | 0.171          | 0.175  | 0.069           | 0.071  | 121      |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.50         | 21.20 | 0.138          | 0.148  | 0.054           | 0.058  |          |
|         | Body & Hotspot         | QPSK | Mode B     | 5          | Rear          | 55340 | 3560.0      | 1             | 49        | 22.50         | 22.40 | 0.509          | 0.521  | 0.138           | 0.141  | 122      |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.50         | 21.20 | 0.322          | 0.345  | 0.088           | 0.094  |          |
|         |                        |      |            |            | Front         | 56207 | 3646.7      | 1             | 49        | 22.50         | 22.40 | 0.076          | 0.078  | 0.030           | 0.031  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.50         | 21.20 | 0.068          | 0.073  | 0.023           | 0.025  |          |
|         | Hotspot                | QPSK | Mode B     | 5          | Edge 1        | 56207 | 3646.7      | 1             | 49        | 22.50         | 22.40 | 0.138          | 0.141  | 0.037           | 0.038  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.50         | 21.20 | 0.128          | 0.137  | 0.033           | 0.035  |          |
|         |                        |      |            |            | Edge 4        | 56207 | 3646.7      | 1             | 49        | 22.50         | 22.40 | 0.157          | 0.161  | 0.053           | 0.054  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.50         | 21.20 | 0.119          | 0.128  | 0.041           | 0.044  |          |

**Notes:**

Low and high channels were tested using the maximum tune-up limit. This is for testing purpose only. For device placing to the market would follow the tune up procedure.

| Antenna | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offset | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|------------------------|------|------------|------------|---------------|-------|-------------|---------------|-----------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |                        |      |            |            |               |       |             |               |           | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT3    | Head                   | QPSK | Mode A     | 0          | Left Touch    | 56207 | 3646.7      | 1             | 49        | 25.50         | 25.15 | 0.038          | 0.041  | 0.013           | 0.014  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.50         | 24.21 | 0.029          | 0.031  | 0.010           | 0.010  |          |
|         |                        |      |            |            | Left Tilt     | 56207 | 3646.7      | 1             | 49        | 25.50         | 25.15 | 0.015          | 0.016  | 0.003           | 0.004  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.50         | 24.21 | 0.088          | 0.094  | 0.002           | 0.002  |          |
|         |                        |      |            |            | Right Touch   | 56207 | 3646.7      | 1             | 49        | 25.50         | 25.15 | 0.091          | 0.099  | 0.029           | 0.031  | 123      |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.50         | 24.21 | 0.069          | 0.074  | 0.021           | 0.023  |          |
|         | Body & Hotspot         | QPSK | Mode B     | 5          | Rear          | 55340 | 3560.0      | 1             | 49        | 25.50         | 25.15 | 0.737          | 0.799  | 0.305           | 0.331  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.50         | 24.21 | 0.711          | 0.771  | 0.289           | 0.313  |          |
|         |                        |      |            |            |               | 56207 | 3646.7      | 1             | 49        | 25.50         | 25.15 | 0.791          | 0.857  | 0.313           | 0.339  | 124      |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.50         | 24.21 | 0.612          | 0.654  | 0.241           | 0.258  |          |
|         |                        |      |            |            | Front         | 56207 | 3646.7      | 1             | 49        | 25.50         | 25.15 | 0.586          | 0.612  | 0.242           | 0.253  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 25.50         | 25.15 | 0.320          | 0.347  | 0.114           | 0.124  |          |
|         | Hotspot                | QPSK | Mode B     | 5          | Edge 3        | 56207 | 3646.7      | 1             | 49        | 25.50         | 25.15 | 0.105          | 0.114  | 0.039           | 0.042  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.50         | 24.21 | 0.083          | 0.089  | 0.030           | 0.032  |          |
|         |                        |      |            |            | Edge 4        | 56207 | 3646.7      | 1             | 49        | 25.50         | 25.15 | 0.446          | 0.483  | 0.153           | 0.166  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 24.50         | 24.21 | 0.358          | 0.383  | 0.122           | 0.130  |          |
| Antenna | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | RB Allocation | RB offset | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
| ANT4    | Head                   | QPSK | Mode A     | 0          | Left Touch    | 56207 | 3646.7      | 1             | 49        | 22.50         | 22.00 | 0.542          | 0.608  | 0.218           | 0.245  | 125      |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.50         | 21.00 | 0.435          | 0.488  | 0.175           | 0.196  |          |
|         |                        |      |            |            | Left Tilt     | 56207 | 3646.7      | 1             | 49        | 22.50         | 22.00 | 0.399          | 0.448  | 0.147           | 0.165  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.50         | 21.00 | 0.316          | 0.355  | 0.117           | 0.131  |          |
|         |                        |      |            |            | Right Touch   | 56207 | 3646.7      | 1             | 49        | 22.50         | 22.00 | 0.131          | 0.147  | 0.055           | 0.062  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.50         | 21.00 | 0.105          | 0.118  | 0.044           | 0.049  |          |
|         | Body & Hotspot         | QPSK | Mode B     | 5          | Right Tilt    | 56207 | 3646.7      | 1             | 49        | 22.50         | 22.00 | 0.145          | 0.163  | 0.062           | 0.069  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.50         | 21.00 | 0.117          | 0.131  | 0.049           | 0.055  |          |
|         |                        |      |            |            | Rear          | 55340 | 3560.0      | 1             | 49        | 22.50         | 22.00 | 0.350          | 0.393  | 0.141           | 0.158  | 126      |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.50         | 21.00 | 0.282          | 0.316  | 0.113           | 0.127  |          |
|         |                        |      |            |            | Front         | 56207 | 3646.7      | 1             | 49        | 22.50         | 22.00 | 0.290          | 0.325  | 0.120           | 0.135  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.50         | 21.00 | 0.255          | 0.286  | 0.117           | 0.131  |          |
|         | Hotspot                | QPSK | Mode B     | 5          | Edge 1        | 56207 | 3646.7      | 1             | 49        | 22.50         | 22.00 | 0.143          | 0.160  | 0.052           | 0.058  |          |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.50         | 21.00 | 0.114          | 0.128  | 0.040           | 0.045  |          |
|         |                        |      |            |            | Edge 2        | 56207 | 3646.7      | 1             | 49        | 22.50         | 22.00 | 0.693          | 0.778  | 0.245           | 0.275  | 127      |
|         |                        |      |            |            |               |       |             | 50            | 24        | 21.50         | 21.00 | 0.549          | 0.616  | 0.193           | 0.217  |          |

**Notes:**

Low and high channels were tested using the maximum tune-up limit. This is for testing purpose only. For device placing to the market would follow the tune up procedure.

**10.19. LTE Band 66 (20MHz Bandwidth)**

| Antenna | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #.  | Freq. (MHz) | RB Allocation | RB offset | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|------------------------|------|------------|------------|---------------|--------|-------------|---------------|-----------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |                        |      |            |            |               |        |             |               |           | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT1    | Head                   | QPSK | Mode A     | 0          | Left Touch    | 132322 | 1745.0      | 1             | 49        | 25.70         | 25.60 | 0.110          | 0.113  | 0.074           | 0.076  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 24.70         | 24.60 | 0.085          | 0.087  | 0.057           | 0.058  |          |
|         |                        |      |            |            | Left Tilt     | 132322 | 1745.0      | 1             | 49        | 25.70         | 25.60 | 0.102          | 0.104  | 0.063           | 0.064  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 24.70         | 24.60 | 0.083          | 0.085  | 0.051           | 0.052  |          |
|         |                        |      |            |            | Right Touch   | 132322 | 1745.0      | 1             | 49        | 25.70         | 25.60 | 0.225          | 0.230  | 0.145           | 0.148  | 128      |
|         |                        |      |            |            |               |        |             | 50            | 24        | 24.70         | 24.60 | 0.173          | 0.177  | 0.111           | 0.114  |          |
|         |                        |      |            |            | Right Tilt    | 132322 | 1745.0      | 1             | 49        | 25.70         | 25.60 | 0.099          | 0.101  | 0.064           | 0.066  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 24.70         | 24.60 | 0.081          | 0.083  | 0.052           | 0.053  |          |
|         | Body & Hotspot         | QPSK | Mode B     | 5          | Rear          | 132322 | 1745.0      | 1             | 49        | 18.00         | 17.80 | 0.428          | 0.448  | 0.216           | 0.226  | 129      |
|         |                        |      |            |            |               |        |             | 50            | 24        | 18.00         | 17.80 | 0.425          | 0.445  | 0.215           | 0.225  |          |
|         |                        |      |            |            | Front         | 132322 | 1745.0      | 1             | 49        | 18.00         | 17.80 | 0.359          | 0.376  | 0.177           | 0.185  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 18.00         | 17.80 | 0.361          | 0.378  | 0.178           | 0.186  |          |
|         | Hotspot                | QPSK | Mode B     | 5          | Edge 2        | 132322 | 1745.0      | 1             | 49        | 18.00         | 17.80 | 0.141          | 0.148  | 0.077           | 0.081  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 18.00         | 17.80 | 0.133          | 0.139  | 0.074           | 0.077  |          |
|         |                        |      |            |            | Edge 3        | 132072 | 1720.0      | 1             | 49        | 18.00         | 17.90 | 0.883          | 0.904  | 0.412           | 0.422  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 18.00         | 17.90 | 0.886          | 0.907  | 0.415           | 0.425  |          |
|         |                        |      |            |            |               | 132322 | 1745.0      | 1             | 49        | 18.00         | 17.80 | 0.866          | 0.907  | 0.404           | 0.423  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 18.00         | 17.80 | 0.903          | 0.946  | 0.418           | 0.438  |          |
|         |                        |      |            |            |               | 132572 | 1770.0      | 100           | 0         | 18.00         | 17.80 | 0.873          | 0.914  | 0.404           | 0.423  | 130      |
|         |                        |      |            |            |               |        |             | 1             | 49        | 18.00         | 17.80 | 0.896          | 0.938  | 0.406           | 0.425  |          |
|         |                        |      |            |            | Edge 4        | 132322 | 1745.0      | 50            | 24        | 18.00         | 17.80 | 0.841          | 0.881  | 0.386           | 0.404  |          |
|         |                        |      |            |            |               |        |             | 1             | 49        | 18.00         | 17.80 | 0.016          | 0.017  | 0.007           | 0.007  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 18.00         | 17.80 | 0.016          | 0.017  | 0.008           | 0.008  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 18.00         | 17.80 | 0.016          | 0.017  | 0.008           | 0.008  |          |
| Antenna | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #.  | Freq. (MHz) | RB Allocation | RB offset | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|         |                        |      |            |            |               |        |             |               |           | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT2    | Head                   | QPSK | Mode A     | 0          | Left Touch    | 132322 | 1745.0      | 1             | 49        | 22.00         | 21.80 | 0.286          | 0.299  | 0.150           | 0.157  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 22.00         | 21.50 | 0.243          | 0.273  | 0.125           | 0.140  |          |
|         |                        |      |            |            | Left Tilt     | 132322 | 1745.0      | 1             | 49        | 22.00         | 21.80 | 0.374          | 0.392  | 0.186           | 0.195  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 22.00         | 21.50 | 0.317          | 0.356  | 0.157           | 0.176  |          |
|         |                        |      |            |            | Right Touch   | 132072 | 1720.0      | 1             | 49        | 22.00         | 21.80 | 0.783          | 0.820  | 0.378           | 0.396  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 22.00         | 21.70 | 0.784          | 0.840  | 0.377           | 0.404  |          |
|         |                        |      |            |            |               | 132322 | 1745.0      | 1             | 49        | 22.00         | 21.80 | 0.767          | 0.803  | 0.378           | 0.396  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 22.00         | 21.50 | 0.775          | 0.870  | 0.377           | 0.423  |          |
|         |                        |      |            |            |               | 132572 | 1770.0      | 100           | 0         | 22.00         | 21.50 | 0.766          | 0.859  | 0.374           | 0.420  |          |
|         |                        |      |            |            |               |        |             | 1             | 49        | 22.00         | 21.90 | 0.872          | 0.892  | 0.426           | 0.436  |          |
|         |                        |      |            |            | Right Tilt    | 132322 | 1745.0      | 50            | 24        | 22.00         | 21.80 | 0.849          | 0.889  | 0.416           | 0.436  | 131      |
|         |                        |      |            |            |               |        |             | 1             | 49        | 22.00         | 21.80 | 0.606          | 0.635  | 0.276           | 0.289  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 22.00         | 21.50 | 0.593          | 0.665  | 0.270           | 0.303  |          |
|         |                        |      |            |            |               |        |             | 1             | 49        | 20.00         | 20.00 | 0.846          | 0.846  | 0.394           | 0.394  |          |
|         | Body & Hotspot         | QPSK | Mode B     | 5          | Rear          | 132072 | 1720.0      | 50            | 24        | 20.00         | 20.00 | 0.842          | 0.842  | 0.393           | 0.393  |          |
|         |                        |      |            |            |               |        |             | 1             | 49        | 20.00         | 19.90 | 0.806          | 0.825  | 0.373           | 0.382  |          |
|         |                        |      |            |            |               | 132322 | 1745.0      | 50            | 24        | 20.00         | 19.80 | 0.797          | 0.835  | 0.368           | 0.385  |          |
|         |                        |      |            |            |               |        |             | 100           | 0         | 20.00         | 20.00 | 0.849          | 0.849  | 0.392           | 0.392  |          |
|         |                        |      |            |            | 132572        | 1770.0 |             | 1             | 49        | 20.00         | 20.00 | 0.870          | 0.870  | 0.403           | 0.403  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 20.00         | 20.00 | 0.881          | 0.881  | 0.405           | 0.405  |          |
|         |                        |      |            |            | Front         | 132322 | 1745.0      | 1             | 49        | 20.00         | 19.90 | 0.373          | 0.382  | 0.178           | 0.182  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 20.00         | 19.80 | 0.378          | 0.396  | 0.178           | 0.186  |          |
|         | Hotspot                | QPSK | Mode B     | 5          | Edge 1        | 132322 | 1745.0      | 1             | 49        | 20.00         | 19.90 | 0.467          | 0.478  | 0.208           | 0.213  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 20.00         | 19.80 | 0.475          | 0.497  | 0.211           | 0.221  |          |
|         |                        |      |            |            | Edge 2        | 132322 | 1745.0      | 1             | 49        | 20.00         | 19.90 | 0.009          | 0.010  | 0.003           | 0.003  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 20.00         | 19.80 | 0.010          | 0.011  | 0.003           | 0.003  |          |
|         |                        |      |            |            | Edge 4        | 132322 | 1745.0      | 1             | 49        | 20.00         | 19.90 | 0.226          | 0.231  | 0.126           | 0.129  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 20.00         | 19.80 | 0.224          | 0.235  | 0.125           | 0.131  |          |

| Antenna | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #.  | Freq. (MHz) | RB Allocation | RB offset | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|------------------------|------|------------|------------|---------------|--------|-------------|---------------|-----------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |                        |      |            |            |               |        |             |               |           | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT3    | Head                   | QPSK | Mode A     | 0          | Left Touch    | 132322 | 1745.0      | 1             | 49        | 25.00         | 24.80 | 0.303          | 0.317  | 0.194           | 0.203  | 133      |
|         |                        |      |            |            |               |        |             | 50            | 24        | 24.00         | 23.80 | 0.239          | 0.250  | 0.153           | 0.160  |          |
|         |                        |      |            |            | Left Tilt     | 132322 | 1745.0      | 1             | 49        | 25.00         | 24.80 | 0.200          | 0.209  | 0.123           | 0.129  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 24.00         | 23.80 | 0.159          | 0.166  | 0.097           | 0.102  |          |
|         |                        |      |            |            | Right Touch   | 132322 | 1745.0      | 1             | 49        | 25.00         | 24.80 | 0.197          | 0.206  | 0.126           | 0.132  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 24.00         | 23.80 | 0.156          | 0.163  | 0.100           | 0.105  |          |
|         | Body & Hotspot         | QPSK | Mode B     | 5          | Rear          | 132072 | 1720.0      | 1             | 49        | 21.75         | 21.60 | 0.756          | 0.783  | 0.408           | 0.422  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 21.75         | 21.60 | 0.748          | 0.774  | 0.404           | 0.418  |          |
|         |                        |      |            |            |               | 132322 | 1745.0      | 1             | 49        | 21.75         | 21.70 | 0.881          | 0.891  | 0.471           | 0.476  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 21.75         | 21.70 | 0.878          | 0.888  | 0.468           | 0.473  |          |
|         |                        |      |            |            | Front         | 132572 | 1770.0      | 1             | 49        | 21.75         | 21.70 | 0.925          | 0.936  | 0.489           | 0.495  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 21.75         | 21.70 | 0.931          | 0.942  | 0.491           | 0.497  | 134      |
|         |                        |      |            |            |               | 132322 | 1745.0      | 1             | 49        | 21.75         | 21.70 | 0.428          | 0.433  | 0.252           | 0.255  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 21.75         | 21.70 | 0.475          | 0.481  | 0.263           | 0.266  |          |
|         | Hotspot                | QPSK | Mode B     | 5          | Edge 3        | 132322 | 1745.0      | 1             | 49        | 21.75         | 21.70 | 0.218          | 0.221  | 0.106           | 0.107  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 21.75         | 21.70 | 0.219          | 0.222  | 0.107           | 0.108  |          |
|         |                        |      |            |            | Edge 4        | 132322 | 1745.0      | 1             | 49        | 21.75         | 21.70 | 0.531          | 0.537  | 0.282           | 0.285  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 21.75         | 21.70 | 0.527          | 0.533  | 0.279           | 0.282  |          |
| Antenna | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #.  | Freq. (MHz) | RB Allocation | RB offset | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
| ANT4    | Head                   | QPSK | Mode A     | 0          | Left Touch    | 132072 | 1720.0      | 1             | 49        | 21.00         | 21.00 | 0.625          | 0.625  | 0.317           | 0.317  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 21.00         | 20.80 | 0.563          | 0.590  | 0.285           | 0.298  |          |
|         |                        |      |            |            |               | 132322 | 1745.0      | 1             | 49        | 21.00         | 20.80 | 0.808          | 0.846  | 0.403           | 0.422  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 21.00         | 20.50 | 0.713          | 0.800  | 0.358           | 0.402  |          |
|         |                        |      |            |            | Left Tilt     | 132572 | 1770.0      | 1             | 49        | 21.00         | 20.90 | 0.852          | 0.872  | 0.429           | 0.439  | 135      |
|         |                        |      |            |            |               |        |             | 50            | 24        | 21.00         | 20.90 | 0.833          | 0.852  | 0.419           | 0.429  |          |
|         |                        |      |            |            |               | 132322 | 1745.0      | 1             | 49        | 21.00         | 20.80 | 0.443          | 0.464  | 0.212           | 0.222  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 21.00         | 20.50 | 0.401          | 0.450  | 0.191           | 0.214  |          |
|         |                        |      |            |            | Right Touch   | 132322 | 1745.0      | 1             | 49        | 21.00         | 20.80 | 0.192          | 0.201  | 0.106           | 0.111  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 21.00         | 20.50 | 0.170          | 0.191  | 0.093           | 0.105  |          |
|         |                        |      |            |            | Right Tilt    | 132322 | 1745.0      | 1             | 49        | 21.00         | 20.80 | 0.190          | 0.199  | 0.104           | 0.109  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 21.00         | 20.50 | 0.170          | 0.191  | 0.093           | 0.104  |          |
|         | Body & Hotspot         | QPSK | Mode B     | 5          | Rear          | 132072 | 1720.0      | 1             | 49        | 22.25         | 21.90 | 0.502          | 0.544  | 0.248           | 0.269  |          |
|         |                        |      |            |            |               | 132322 | 1745.0      | 1             | 49        | 22.25         | 21.85 | 0.730          | 0.800  | 0.357           | 0.391  | 136      |
|         |                        |      |            |            |               | 132572 | 1770.0      | 1             | 49        | 22.25         | 21.94 | 0.732          | 0.786  | 0.352           | 0.378  |          |
|         |                        |      |            |            | Front         | 132322 | 1745.0      | 1             | 49        | 22.25         | 21.85 | 0.502          | 0.550  | 0.261           | 0.286  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 22.00         | 21.70 | 0.399          | 0.428  | 0.206           | 0.221  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 22.00         | 21.70 | 0.361          | 0.387  | 0.158           | 0.169  |          |
|         | Hotspot                | QPSK | Mode B     | 5          | Edge 1        | 132322 | 1745.0      | 1             | 49        | 22.25         | 21.85 | 0.417          | 0.457  | 0.196           | 0.215  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 22.00         | 21.70 | 0.361          | 0.387  | 0.158           | 0.169  |          |
|         |                        |      |            |            | Edge 2        | 132072 | 1720.0      | 1             | 49        | 22.25         | 21.90 | 0.703          | 0.762  | 0.336           | 0.364  |          |
|         |                        |      |            |            |               |        |             | 1             | 49        | 22.25         | 21.85 | 0.812          | 0.890  | 0.384           | 0.421  |          |
|         |                        |      |            |            |               | 132322 | 1745.0      | 50            | 24        | 22.00         | 21.70 | 0.647          | 0.693  | 0.305           | 0.327  |          |
|         |                        |      |            |            |               |        |             | 1             | 49        | 22.25         | 21.94 | 0.837          | 0.899  | 0.389           | 0.418  | 137      |

**10.20. LTE Band 71 (20MHz Bandwidth)**

| Antenna | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #.  | Freq. (MHz) | RB Allocation | RB offset | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|------------------------|------|------------|------------|---------------|--------|-------------|---------------|-----------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |                        |      |            |            |               |        |             |               |           | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT1    | Head                   | QPSK | Mode A     | 0          | Left Touch    | 133297 | 680.5       | 1             | 49        | 25.70         | 25.60 | 0.137          | 0.140  | 0.106           | 0.108  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 24.70         | 24.30 | 0.109          | 0.120  | 0.084           | 0.092  |          |
|         |                        |      |            |            | Left Tilt     | 133297 | 680.5       | 1             | 49        | 25.70         | 25.60 | 0.099          | 0.101  | 0.077           | 0.079  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 24.70         | 24.30 | 0.079          | 0.087  | 0.062           | 0.068  |          |
|         |                        |      |            |            | Right Touch   | 133297 | 680.5       | 1             | 49        | 25.70         | 25.60 | 0.166          | 0.170  | 0.128           | 0.131  | 138      |
|         |                        |      |            |            |               |        |             | 50            | 24        | 24.70         | 24.30 | 0.137          | 0.150  | 0.106           | 0.116  |          |
|         |                        |      |            |            | Right Tilt    | 133297 | 680.5       | 1             | 49        | 25.70         | 25.60 | 0.087          | 0.089  | 0.068           | 0.070  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 24.70         | 24.30 | 0.071          | 0.078  | 0.056           | 0.061  |          |
|         | Body & Hotspot         | QPSK | Mode B     | 5          | Rear          | 133297 | 680.5       | 1             | 49        | 25.70         | 25.60 | 0.571          | 0.584  | 0.326           | 0.334  | 139      |
|         |                        |      |            |            |               |        |             | 50            | 24        | 24.70         | 24.30 | 0.452          | 0.496  | 0.257           | 0.282  |          |
|         |                        |      |            |            | Front         | 133297 | 680.5       | 1             | 49        | 25.70         | 25.60 | 0.320          | 0.327  | 0.215           | 0.220  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 24.70         | 24.30 | 0.257          | 0.282  | 0.150           | 0.164  |          |
|         | Hotspot                | QPSK | Mode B     | 5          | Edge 2        | 133297 | 680.5       | 1             | 49        | 25.70         | 25.60 | 0.555          | 0.568  | 0.377           | 0.386  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 24.70         | 24.30 | 0.436          | 0.478  | 0.295           | 0.323  |          |
|         |                        |      |            |            | Edge 3        | 133297 | 680.5       | 1             | 49        | 25.70         | 25.60 | 0.414          | 0.424  | 0.185           | 0.189  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 24.70         | 24.30 | 0.325          | 0.356  | 0.147           | 0.161  |          |
|         |                        |      |            |            | Edge 4        | 133297 | 680.5       | 1             | 49        | 25.70         | 25.60 | 0.241          | 0.247  | 0.162           | 0.166  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 24.70         | 24.30 | 0.161          | 0.177  | 0.108           | 0.118  |          |

| Antenna | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #.  | Freq. (MHz) | RB Allocation | RB offset | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|------------------------|------|------------|------------|---------------|--------|-------------|---------------|-----------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |                        |      |            |            |               |        |             |               |           | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT2    | Head                   | QPSK | Mode A     | 0          | Left Touch    | 133297 | 680.5       | 1             | 49        | 24.50         | 24.50 | 0.344          | 0.344  | 0.244           | 0.244  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 23.50         | 23.50 | 0.272          | 0.272  | 0.193           | 0.193  |          |
|         |                        |      |            |            | Left Tilt     | 133297 | 680.5       | 1             | 49        | 24.50         | 24.50 | 0.367          | 0.367  | 0.212           | 0.212  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 23.50         | 23.50 | 0.304          | 0.304  | 0.173           | 0.173  |          |
|         |                        |      |            |            | Right Touch   | 133297 | 680.5       | 1             | 49        | 24.50         | 24.50 | 0.420          | 0.420  | 0.272           | 0.272  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 23.50         | 23.50 | 0.334          | 0.334  | 0.216           | 0.216  |          |
|         |                        |      |            |            | Right Tilt    | 133297 | 680.5       | 1             | 49        | 24.50         | 24.50 | 0.422          | 0.422  | 0.233           | 0.233  | 140      |
|         |                        |      |            |            |               |        |             | 50            | 24        | 23.50         | 23.50 | 0.337          | 0.337  | 0.186           | 0.186  |          |
|         | Body & Hotspot         | QPSK | Mode B     | 5          | Rear          | 133297 | 680.5       | 1             | 49        | 24.50         | 24.50 | 0.331          | 0.331  | 0.213           | 0.213  | 141      |
|         |                        |      |            |            |               |        |             | 50            | 24        | 23.50         | 23.50 | 0.261          | 0.261  | 0.169           | 0.169  |          |
|         |                        |      |            |            | Front         | 133297 | 680.5       | 1             | 49        | 24.50         | 24.50 | 0.245          | 0.245  | 0.178           | 0.178  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 23.50         | 23.50 | 0.197          | 0.197  | 0.143           | 0.143  |          |
|         | Hotspot                | QPSK | Mode B     | 5          | Edge 1        | 133297 | 680.5       | 1             | 49        | 24.50         | 24.50 | 0.125          | 0.125  | 0.059           | 0.059  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 23.50         | 23.50 | 0.098          | 0.098  | 0.046           | 0.046  |          |
|         |                        |      |            |            | Edge 2        | 133297 | 680.5       | 1             | 49        | 24.50         | 24.50 | 0.112          | 0.112  | 0.074           | 0.074  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 23.50         | 23.50 | 0.087          | 0.087  | 0.058           | 0.058  |          |
|         |                        |      |            |            | Edge 4        | 133297 | 680.5       | 1             | 49        | 24.50         | 24.50 | 0.248          | 0.248  | 0.166           | 0.166  |          |
|         |                        |      |            |            |               |        |             | 50            | 24        | 23.50         | 23.50 | 0.203          | 0.203  | 0.136           | 0.136  |          |

## 10.21. Wi-Fi (DTS Band)

When the 802.11b reported SAR of the highest measured maximum output power channel is  $\leq 0.8$  W/kg, no further SAR testing is required. If SAR is  $> 0.8$  W/kg and  $\leq 1.2$  W/kg, SAR is required for the next highest measured output power channel. Finally, if SAR is  $> 1.2$  W/kg, SAR is required for the third channel.

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

ANT3 Power Mode A the P<sub>Cell\_ON</sub> is same as P<sub>Cell\_OFF</sub>

| Antenna | WWAN Power | RF Exposure Conditions | Mode    | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | Area Scan Max. SAR (W/kg) | Duty Cycle | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|------------|------------------------|---------|------------|------------|---------------|-------|-------------|---------------------------|------------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |            |                        |         |            |            |               |       |             |                           |            | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT3    | Cell OFF   | Head                   | 802.11b | Mode A     | 0          | Left Touch    | 6     | 2437        | 0.298                     | 100.0%     | 21.50         | 21.50 | 0.233          | 0.233  | 0.114           | 0.114  | 142      |
|         |            |                        |         |            |            | Left Tilt     | 6     | 2437        | 0.108                     | 100.0%     | 21.50         | 21.50 |                |        |                 |        |          |
|         |            |                        |         |            |            | Right Touch   | 6     | 2437        | 0.116                     | 100.0%     | 21.50         | 21.50 |                |        |                 |        |          |
|         |            |                        |         |            |            | Right Tilt    | 6     | 2437        | 0.130                     | 100.0%     | 21.50         | 21.50 |                |        |                 |        |          |
|         |            | Body & Hotspot         | 802.11b | Mode B     | 5          | Rear          | 2     | 2412        | 0.934                     | 100.0%     | 21.50         | 21.50 | 0.847          | 0.847  | 0.341           | 0.341  |          |
|         |            |                        |         |            |            |               | 6     | 2437        | 1.240                     | 100.0%     | 21.50         | 21.50 | 1.020          | 1.020  | 0.403           | 0.403  | 143      |
|         |            |                        |         |            |            |               | 11    | 2462        | 0.799                     | 100.0%     | 21.50         | 21.50 | 0.967          | 0.967  | 0.354           | 0.354  |          |
|         |            |                        |         |            |            | Front         | 6     | 2437        | 1.200                     | 100.0%     | 21.50         | 21.50 | 0.778          | 0.778  | 0.359           | 0.359  |          |
|         |            |                        |         |            |            |               | 11    | 2462        | 1.230                     | 100.0%     | 21.50         | 21.50 | 0.864          | 0.864  | 0.393           | 0.393  |          |
|         |            | Hotspot                | 802.11b | Mode B     | 5          | Edge 3        | 6     | 2437        | 0.503                     | 100.0%     | 21.50         | 21.50 |                |        |                 |        |          |
|         |            |                        |         |            |            | Edge 4        | 6     | 2437        | 0.792                     | 100.0%     | 21.50         | 21.50 | 0.551          | 0.551  | 0.238           | 0.238  |          |
| Antenna | WWAN Power | RF Exposure Conditions | Mode    | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | Area Scan Max. SAR (W/kg) | Duty Cycle | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|         |            |                        |         |            |            |               |       |             |                           |            | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT4    | Cell OFF   | Head                   | 802.11b | Mode A     | 0          | Left Touch    | 6     | 2437        | 1.210                     | 100.0%     | 17.00         | 17.00 | 0.969          | 0.969  | 0.410           | 0.410  |          |
|         |            |                        |         |            |            |               | 11    | 2462        | 1.210                     | 100.0%     | 17.00         | 17.00 | 0.849          | 0.849  | 0.369           | 0.369  |          |
|         |            |                        |         |            |            | Left Tilt     | 1     | 2412        | 1.210                     | 100.0%     | 17.00         | 17.00 | 1.140          | 1.140  | 0.523           | 0.523  |          |
|         |            |                        |         |            |            |               | 6     | 2437        | 1.610                     | 100.0%     | 17.00         | 17.00 | 1.150          | 1.150  | 0.438           | 0.438  | 144      |
|         |            |                        |         |            |            | Right Touch   | 11    | 2462        | 1.500                     | 100.0%     | 17.00         | 17.00 | 0.997          | 0.997  | 0.464           | 0.464  |          |
|         |            |                        |         |            |            |               | 6     | 2437        | 0.533                     | 100.0%     | 17.00         | 17.00 |                |        |                 |        |          |
|         |            | Body & Hotspot         | 802.11b | Mode B     | 5          | Rear          | 6     | 2437        | 1.530                     | 100.0%     | 18.75         | 18.75 | 1.100          | 1.100  | 0.516           | 0.516  | 145      |
|         |            |                        |         |            |            |               | 11    | 2462        | 1.350                     | 100.0%     | 18.75         | 18.75 | 0.869          | 0.869  | 0.382           | 0.382  |          |
|         |            |                        |         |            |            | Front         | 6     | 2437        | 0.823                     | 100.0%     | 18.75         | 18.75 |                |        |                 |        |          |
|         |            | Hotspot                | 802.11b | Mode B     | 5          | Edge 1        | 6     | 2437        | 1.020                     | 100.0%     | 18.75         | 18.75 |                |        |                 |        |          |
|         |            |                        |         |            |            | Edge 2        | 6     | 2437        | 0.064                     | 100.0%     | 18.75         | 18.75 | 0.559          | 0.559  | 0.251           | 0.251  |          |
| Antenna | WWAN Power | RF Exposure Conditions | Mode    | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | Area Scan Max. SAR (W/kg) | Duty Cycle | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|         |            |                        |         |            |            |               |       |             |                           |            | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT3    | Cell ON    | Body & Hotspot         | 802.11b | Mode B     | 5          | Rear          | 6     | 2437        | 0.650                     | 100.0%     | 17.75         | 17.75 | 0.392          | 0.392  | 0.156           | 0.156  | 146      |
|         |            |                        |         |            |            | Front         | 6     | 2437        | 0.354                     | 100.0%     | 17.75         | 17.75 |                |        |                 |        |          |
|         |            | Hotspot                | 802.11b | Mode B     | 5          | Edge 3        | 6     | 2437        | 0.212                     | 100.0%     | 17.75         | 17.75 |                |        |                 |        |          |
|         |            |                        |         |            |            | Edge 4        | 6     | 2437        | 0.264                     | 100.0%     | 17.75         | 17.75 |                |        |                 |        |          |
| Antenna | WWAN Power | RF Exposure Conditions | Mode    | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | Area Scan Max. SAR (W/kg) | Duty Cycle | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|         |            |                        |         |            |            |               |       |             |                           |            | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT4    | Cell ON    | Head                   | 802.11b | Mode A     | 0          | Left Touch    | 6     | 2437        | 0.665                     | 100.0%     | 13.50         | 13.50 | 0.480          | 0.480  | 0.217           | 0.217  | 147      |
|         |            |                        |         |            |            | Left Tilt     | 6     | 2437        | 0.448                     | 100.0%     | 13.50         | 13.50 | 0.323          | 0.323  | 0.130           | 0.130  |          |
|         |            |                        |         |            |            | Right Touch   | 6     | 2437        | 0.248                     | 100.0%     | 13.50         | 13.50 |                |        |                 |        |          |
|         |            |                        |         |            |            | Right Tilt    | 6     | 2437        | 0.202                     | 100.0%     | 13.50         | 13.50 |                |        |                 |        |          |
|         |            | Body & Hotspot         | 802.11b | Mode B     | 5          | Rear          | 6     | 2437        | 0.85                      | 100.0%     | 15.25         | 15.25 | 0.482          | 0.482  | 0.225           | 0.225  | 148      |
|         |            |                        |         |            |            | Front         | 6     | 2437        | 0.354                     | 100.0%     | 15.25         | 15.25 |                |        |                 |        |          |
|         |            | Hotspot                | 802.11b | Mode B     | 5          | Edge 1        | 6     | 2437        | 0.141                     | 100.0%     | 15.25         | 15.25 |                |        |                 |        |          |
|         |            |                        |         |            |            | Edge 2        | 6     | 2437        | 0.407                     | 100.0%     | 15.25         | 15.25 | 0.266          | 0.266  | 0.130           | 0.130  |          |

## 10.22. Wi-Fi (U-NII Band)

| Antenna | WWAN Power    | Band     | RF Exposure Conditions | Mode             | Power Mode | Dist. (mm) | Test Position  | Ch #.            | Freq. (MHz) | Area Scan Max. SAR (W/kg) | Duty Cycle | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|---------|---------------|----------|------------------------|------------------|------------|------------|----------------|------------------|-------------|---------------------------|------------|---------------|-------|----------------|--------|-----------------|--------|----------|
|         |               |          |                        |                  |            |            |                |                  |             |                           |            | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT5    | Cell OFF      | U-NII-2A | Head                   | 802.11n (HT40)   | Mode A     | 0          | Left Touch     | 54               | 5270        | 0.163                     | 97.9%      | 21.50         | 21.50 | 0.043          | 0.044  | 0.010           | 0.010  | 149      |
|         |               |          |                        |                  |            |            | Left Tilt      | 54               | 5270        | 0.0247                    | 97.9%      | 21.50         | 21.50 |                |        |                 |        |          |
|         |               |          |                        |                  |            |            | Right Touch    | 54               | 5270        | 0.0258                    | 97.9%      | 21.50         | 21.50 |                |        |                 |        |          |
|         |               |          |                        |                  |            |            | Right Tilt     | 54               | 5270        | 0.0231                    | 97.9%      | 21.50         | 21.50 |                |        |                 |        |          |
|         |               | U-NII-1  | Body & Airplay         | 802.11n HT40     | Mode B     | 5          | Rear           | 38               | 5190        | 0.550                     | 97.9%      | 17.50         | 17.50 | 0.220          | 0.225  | 0.066           | 0.067  | 150      |
|         |               |          |                        |                  |            |            | 46             | 5230             | 1.840       | 97.9%                     | 21.50      | 21.50         | 0.969 | 0.989          | 0.299  | 0.305           |        |          |
|         |               |          |                        |                  |            |            | 46             | 5230             | 0.391       | 97.9%                     | 21.50      | 21.50         |       |                |        |                 |        |          |
|         |               |          |                        |                  |            |            | Edge 3         | 46               | 5230        | 0.608                     | 97.9%      | 21.50         | 21.50 | 0.254          | 0.259  | 0.087           | 0.089  |          |
| Airplay | 802.11n HT40) | Mode B   | 5                      | Edge 4           | 46         | 5230       | 0.214          | 97.9%            | 21.50       | 21.50                     |            |               |       |                |        |                 |        |          |
|         |               |          |                        |                  |            |            |                |                  |             |                           |            |               |       |                |        |                 |        |          |
| Antenna | WWAN Power    | Band     | RF Exposure Conditions | Mode             | Power Mode | Dist. (mm) | Test Position  | Ch #.            | Freq. (MHz) | Area Scan Max. SAR (W/kg) | Duty Cycle | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
| ANT5    | Cell OFF      | U-NII-2C | Head                   | 802.11ac (VHT80) | Mode A     | 0          | Left Touch     | 122              | 5610        | 0.026                     | 95.8%      | 21.50         | 21.50 |                |        |                 |        | 151      |
|         |               |          |                        |                  |            |            | Left Tilt      | 122              | 5610        | 0.010                     | 95.8%      | 21.50         | 21.50 |                |        |                 |        |          |
|         |               |          |                        |                  |            |            | Right Touch    | 122              | 5610        | 0.036                     | 95.8%      | 21.50         | 21.50 | 0.015          | 0.016  | 0.002           | 0.002  |          |
|         |               |          |                        |                  |            |            | Right Tilt     | 122              | 5610        | 0.017                     | 95.8%      | 21.50         | 21.50 |                |        |                 |        |          |
|         |               |          | Body & Airplay         | 802.11ac (VHT80) | Mode B     | 5          | Rear           | 106              | 5530        | 1.780                     | 95.8%      | 16.50         | 16.50 | 0.695          | 0.725  | 0.203           | 0.212  | 152      |
|         |               |          |                        |                  |            |            | 122            | 5610             | 2.940       | 95.8%                     | 20.00      | 20.00         | 1.110 | 1.158          | 0.346  | 0.361           |        |          |
|         |               |          |                        |                  |            |            | 138            | 5690             | 1.950       | 95.8%                     | 20.00      | 20.00         | 1.080 | 1.127          | 0.323  | 0.337           |        |          |
|         |               |          |                        |                  |            |            | Front          | 138              | 5690        | 0.162                     | 95.8%      | 20.00         | 20.00 |                |        |                 |        |          |
|         |               |          | Airplay                | 802.11ac (VHT80) | Mode B     | 5          | Edge 3         | 138              | 5690        | 0.610                     | 95.8%      | 20.00         | 20.00 | 0.226          | 0.236  | 0.077           | 0.080  |          |
|         |               |          |                        |                  |            |            | Edge 4         | 138              | 5690        | 0.308                     | 95.8%      | 20.00         | 20.00 |                |        |                 |        |          |
|         |               |          |                        |                  |            |            |                |                  |             |                           |            |               |       |                |        |                 |        |          |
|         |               |          |                        |                  |            |            |                |                  |             |                           |            |               |       |                |        |                 |        |          |
| Antenna | WWAN Power    | Band     | RF Exposure Conditions | Mode             | Power Mode | Dist. (mm) | Test Position  | Ch #.            | Freq. (MHz) | Area Scan Max. SAR (W/kg) | Duty Cycle | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
| ANT5    | Cell OFF      | U-NII-3  | Head                   | 802.11ac (VHT80) | Mode A     | 0          | Left Touch     | 155              | 5775        | 0.093                     | 95.8%      | 21.50         | 21.50 |                |        |                 |        | 153      |
|         |               |          |                        |                  |            |            | Left Tilt      | 155              | 5775        | 0.039                     | 95.8%      | 21.50         | 21.50 |                |        |                 |        |          |
|         |               |          |                        |                  |            |            | Right Touch    | 155              | 5775        | 0.061                     | 95.8%      | 21.50         | 21.50 |                |        |                 |        |          |
|         |               |          |                        |                  |            |            | Right Tilt     | 155              | 5775        | 0.118                     | 95.8%      | 21.50         | 21.50 | 0.039          | 0.041  | 0.008           | 0.008  |          |
|         |               |          | Body & Airplay         | 802.11ac (VHT80) | Mode B     | 5          | Rear           | 155              | 5775        | 2.550                     | 95.8%      | 18.00         | 18.00 | 1.070          | 1.117  | 3.500           | 3.653  | 154      |
|         |               |          |                        |                  |            |            | Front          | 155              | 5775        | 0.165                     | 95.8%      | 18.00         | 18.00 |                |        |                 |        |          |
|         |               |          |                        |                  |            |            | Edge 3         | 155              | 5775        | 0.833                     | 95.8%      | 18.00         | 18.00 | 0.366          | 0.382  | 0.132           | 0.138  |          |
|         |               |          |                        |                  |            |            | Edge 4         | 155              | 5775        | 0.319                     | 95.8%      | 18.00         | 18.00 |                |        |                 |        |          |
| Antenna | WWAN Power    | Band     | RF Exposure Conditions | Mode             | Power Mode | Dist. (mm) | Test Position  | Ch #.            | Freq. (MHz) | Area Scan Max. SAR (W/kg) | Duty Cycle | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
| ANT6    | Cell OFF      | U-NII-1  | Head                   | 802.11n (HT40)   | Mode A     | 0          | Left Touch     | 46               | 5230        | 0.730                     | 97.9%      | 21.50         | 21.50 |                |        | 0.138           | 0.141  | 155      |
|         |               |          |                        |                  |            |            | Left Tilt      | 46               | 5230        | 0.999                     | 97.9%      | 21.50         | 21.50 | 0.526          | 0.537  |                 |        |          |
|         |               |          |                        |                  |            |            | Right Touch    | 38               | 5190        | 0.525                     | 97.9%      | 17.50         | 17.50 | 0.365          | 0.373  | 0.105           | 0.107  |          |
|         |               |          |                        |                  |            |            | 46             | 5230             | 1.780       | 97.9%                     | 21.50      | 21.50         | 0.922 | 0.941          | 0.274  | 0.280           |        |          |
|         |               |          | Body & Airplay         | 802.11n (HT40)   | Mode B     | 5          | Rear           | 38               | 5190        | 0.598                     | 97.9%      | 17.50         | 17.50 | 0.245          | 0.250  | 0.085           | 0.087  | 156      |
|         |               |          |                        |                  |            |            | 46             | 5230             | 1.690       | 97.9%                     | 21.50      | 21.50         | 0.836 | 0.854          | 0.299  | 0.305           |        |          |
|         |               |          |                        |                  |            |            | Front          | 46               | 5230        | 0.926                     | 97.9%      | 21.50         | 21.50 | 0.393          | 0.401  | 0.137           | 0.140  |          |
|         |               |          |                        |                  |            |            | Edge 1         | 46               | 5230        | 0.537                     | 97.9%      | 21.50         | 21.50 |                |        |                 |        |          |
|         |               | Airplay  | 802.11n (HT40)         | Mode B           | 5          | 38         | 5190           | 0.747            | 97.9%       | 17.50                     | 17.50      | 0.441         | 0.450 | 0.137          | 0.140  |                 |        |          |
|         |               |          |                        |                  |            | 46         | 5230           | 2.930            | 97.9%       | 21.50                     | 21.50      | 1.070         | 1.093 | 0.345          | 0.352  |                 |        |          |
|         |               |          |                        |                  |            |            |                |                  |             |                           |            |               |       |                |        |                 |        |          |
|         |               |          |                        |                  |            |            |                |                  |             |                           |            |               |       |                |        |                 |        |          |
| Antenna | WWAN Power    | Band     | RF Exposure Conditions | Mode             | Power Mode | Dist. (mm) | Test Position  | Ch #.            | Freq. (MHz) | Area Scan Max. SAR (W/kg) | Duty Cycle | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
| ANT6    | Cell OFF      | U-NII-2C | Head                   | 802.11ac (VHT80) | Mode A     | 0          | Left Touch     | 138              | 5690        | 0.941                     | 95.8%      | 21.50         | 21.50 | 0.644          | 0.672  | 0.189           | 0.197  | 158      |
|         |               |          |                        |                  |            |            | Left Tilt      | 122              | 5610        | 0.947                     | 95.8%      | 20.00         | 20.00 | 0.632          | 0.660  | 0.180           | 0.188  |          |
|         |               |          |                        |                  |            |            | Right Touch    | 106              | 5530        | 1.230                     | 95.8%      | 16.50         | 16.50 | 0.674          | 0.703  | 0.229           | 0.239  |          |
|         |               |          |                        |                  |            |            | 122            | 5610             | 2.110       | 95.8%                     | 20.00      | 20.00         | 1.110 | 1.158          | 0.380  | 0.397           |        |          |
|         |               |          |                        |                  |            |            | 138            | 5690             | 1.800       | 95.8%                     | 21.50      | 21.50         | 1.060 | 1.106          | 0.360  | 0.376           |        |          |
|         |               |          |                        |                  |            |            | Right Tilt     | 122              | 5610        | 1.710                     | 95.8%      | 20.00         | 20.00 | 0.901          | 0.940  | 0.320           | 0.334  |          |
|         |               |          |                        |                  |            |            | 138            | 5690             | 1.950       | 95.8%                     | 21.50      | 21.50         | 1.040 | 1.085          | 0.351  | 0.366           |        |          |
|         |               |          |                        |                  |            |            | Body & Airplay | 802.11ac (VHT80) | Mode B      | 5                         | Rear       | 122           | 5610  | 1.810          | 95.8%  | 18.75           | 18.75  |          |
|         |               |          | Front                  | 138              | 5690       | 0.853      | 95.8%          | 18.75            | 18.75       |                           |            |               |       |                |        |                 |        |          |
|         |               |          | Edge 1                 | 138              | 5690       | 0.562      | 95.8%          | 18.75            | 18.75       |                           |            |               |       |                |        |                 |        |          |
|         |               |          | Edge 4                 | 122              | 5610       | 2.230      | 95.8%          | 18.75            | 18.75       | 1.090                     | 1.138      | 0.343         | 0.358 | 160            |        |                 |        |          |
|         |               |          | Airplay                | 802.11ac (VHT80) | Mode B     | 5          | 138            | 5690             | 1.490       | 95.8%                     | 18.75      | 18.75         | 0.839 |                | 0.876  | 0.269           | 0.281  |          |
| Antenna | WWAN Power    | Band     | RF Exposure Conditions | Mode             | Power Mode | Dist. (mm) | Test Position  | Ch #.            | Freq. (MHz) | Area Scan Max. SAR (W/kg) | Duty Cycle | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
| ANT6    | Cell OFF      | U-NII-3  | Head                   | 802.11ac (VHT80) | Mode A     | 0          | Left Touch     | 155              | 5775        | 0.786                     | 95.8%      | 21.50         | 21.50 | 0.483          | 0.504  | 0.136           | 0.142  | 161      |
|         |               |          |                        |                  |            |            | Left Tilt      | 155              | 5775        | 0.410                     | 95.8%      | 21.50         | 21.50 |                |        |                 |        |          |
|         |               |          |                        |                  |            |            | Right Touch    | 155              | 5775        | 2.630                     | 95.8%      | 21.50         | 21.50 | 0.970          | 1.012  | 0.331           | 0.345  |          |
|         |               |          |                        |                  |            |            | Right Tilt     | 155              | 5775        | 2.850                     | 95.8%      | 21.50         | 21.50 | 0.778          | 0.812  | 0.265           | 0.277  |          |
|         |               |          | Body & Airplay         | 802.11ac (VHT80) | Mode B     | 5          | Rear           | 155              | 5775        | 2.020                     | 95.8%      | 20.25         | 20.25 | 1.060          | 1.106  | 0.282           | 0.294  | 162      |
|         |               |          |                        |                  |            |            | Front          | 155              | 5775        | 1.060                     | 95.8%      | 20.25         | 20.25 | 0.401          | 0.418  | 0.140           | 0.146  |          |
|         |               |          |                        |                  |            |            | Edge 1         | 155              | 5775        | 0.547                     | 95.8%      | 20.25         | 20.25 |                |        |                 |        |          |
|         |               |          | Airplay                | 802.11ac (VHT80) | Mode B     | 5          | Edge 4         | 155              | 5775        | 2.420                     | 95.8%      | 20.25         | 20.25 | 1.130          | 1.179  | 0.358           | 0.374  | 163      |
|         |               |          |                        |                  |            |            |                |                  |             |                           |            |               |       |                |        |                 |        |          |

ANT5 Power Mode A the P<sub>Cell ON</sub> is same as P<sub>Cell OFF</sub>

| Antenna | WWAN Power | Band     | RF Exposure Conditions | Mode             | Power Mode | Dist. (mm) | Test Position | Ch #.         | Freq. (MHz) | Area Scan Max. SAR (W/kg) | Duty Cycle | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |       |       |       |     |
|---------|------------|----------|------------------------|------------------|------------|------------|---------------|---------------|-------------|---------------------------|------------|---------------|-------|----------------|--------|-----------------|--------|----------|-------|-------|-------|-----|
|         |            |          |                        |                  |            |            |               |               |             |                           |            | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |       |       |       |     |
| ANT5    | Cell ON    | U-NII-2A | Body & Airplay         | 802.11ac (VHT80) | Mode B     | 5          | Rear          | 42            | 5210        | 0.592                     | 95.8%      | 17.00         | 17.00 | 0.320          | 0.334  | 0.084           | 0.088  | 164      |       |       |       |     |
|         |            |          |                        |                  |            |            | Front         | 42            | 5210        | 0.181                     | 95.8%      | 17.00         | 17.00 |                |        |                 |        |          |       |       |       |     |
|         |            |          | Airplay                | 802.11ac (VHT80) | Mode B     | 5          | Edge 3        | 42            | 5210        | 0.064                     | 95.8%      | 17.00         | 17.00 |                |        |                 |        |          |       |       |       |     |
|         |            |          |                        |                  |            |            | Edge 4        | 42            | 5210        | 0.092                     | 95.8%      | 17.00         | 17.00 |                |        |                 |        |          |       |       |       |     |
| Antenna | WWAN Power | Band     | RF Exposure Conditions | Mode             | Power Mode | Dist. (mm) | Test Position | Ch #.         | Freq. (MHz) | Area Scan Max. SAR (W/kg) | Duty Cycle | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |       |       |       |     |
| ANT5    | Cell ON    | U-NII-2C | Body & Airplay         | 802.11ac (VHT80) | Mode B     | 5          | Rear          | 122           | 5610        | 0.676                     | 95.8%      | 14.75         | 14.75 | 0.310          | 0.324  | 0.087           | 0.091  | 165      |       |       |       |     |
|         |            |          |                        |                  |            |            | Front         | 122           | 5610        | 0.048                     | 95.8%      | 14.75         | 14.75 |                |        |                 |        |          |       |       |       |     |
|         |            |          | Airplay                | 802.11ac (VHT80) | Mode B     | 5          | Edge 3        | 122           | 5610        | 0.157                     | 95.8%      | 14.75         | 14.75 |                |        |                 |        |          |       |       |       |     |
|         |            |          |                        |                  |            |            | Edge 4        | 122           | 5610        | 0.107                     | 95.8%      | 14.75         | 14.75 |                |        |                 |        |          |       |       |       |     |
| Antenna | WWAN Power | Band     | RF Exposure Conditions | Mode             | Power Mode | Dist. (mm) | Test Position | Ch #.         | Freq. (MHz) | Area Scan Max. SAR (W/kg) | Duty Cycle | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |       |       |       |     |
| ANT5    | Cell ON    | U-NII-3  | Body & Airplay         | 802.11ac (VHT80) | Mode B     | 5          | Rear          | 155           | 5775        | 0.901                     | 95.8%      | 12.50         | 12.50 | 0.282          | 0.294  | 0.088           | 0.092  | 166      |       |       |       |     |
|         |            |          |                        |                  |            |            | Front         | 155           | 5775        | 0.049                     | 95.8%      | 12.50         | 12.50 |                |        |                 |        |          |       |       |       |     |
|         |            |          | Airplay                | 802.11ac (VHT80) | Mode B     | 5          | Edge 3        | 155           | 5775        | 0.273                     | 95.8%      | 12.50         | 12.50 |                |        |                 |        |          |       |       |       |     |
|         |            |          |                        |                  |            |            | Edge 4        | 155           | 5775        | 0.096                     | 95.8%      | 12.50         | 12.50 |                |        |                 |        |          |       |       |       |     |
| Antenna | WWAN Power | Band     | RF Exposure Conditions | Mode             | Power Mode | Dist. (mm) | Test Position | Ch #.         | Freq. (MHz) | Area Scan Max. SAR (W/kg) | Duty Cycle | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |       |       |       |     |
| ANT6    | Cell ON    | U-NII-1  | Head                   | 802.11n HT 40    | Mode A     | 0          | Left Touch    | 46            | 5230        | 0.261                     | 97.9%      | 20.75         | 20.75 |                |        |                 |        |          |       |       |       |     |
|         |            |          |                        |                  |            |            | Left Tilt     | 46            | 5230        | 0.252                     | 97.9%      | 20.75         | 20.75 |                |        |                 |        |          |       |       |       |     |
|         |            |          |                        |                  |            |            | Right Touch   | 46            | 5230        | 0.781                     | 97.9%      | 20.75         | 20.75 | 0.434          | 0.443  | 0.141           | 0.144  | 167      |       |       |       |     |
|         |            |          |                        |                  |            |            | Right Tilt    | 46            | 5230        | 0.650                     | 97.9%      | 20.75         | 20.75 | 0.422          | 0.431  | 0.126           | 0.129  |          |       |       |       |     |
|         |            |          | Body & Airplay         | 802.11n HT 40    | Mode B     | 5          | Rear          | 46            | 5230        | 0.592                     | 97.9%      | 17.75         | 17.75 | 0.357          | 0.365  | 0.120           | 0.123  | 168      |       |       |       |     |
|         |            |          |                        |                  |            |            | Front         | 46            | 5230        | 0.376                     | 97.9%      | 17.75         | 17.75 |                |        |                 |        |          |       |       |       |     |
|         |            |          |                        |                  |            |            | Airplay       | 802.11n HT 40 | Mode B      | 5                         | Edge 1     | 46            | 5230  | 0.220          | 97.9%  | 17.75           | 17.75  |          |       |       |       |     |
|         |            |          |                        |                  |            |            |               |               |             |                           | Edge 4     | 46            | 5230  | 0.879          | 97.9%  | 17.75           | 17.75  | 0.413    | 0.422 | 0.118 | 0.120 | 169 |
| Antenna | WWAN Power | Band     | RF Exposure Conditions | Mode             | Power Mode | Dist. (mm) | Test Position | Ch #.         | Freq. (MHz) | Area Scan Max. SAR (W/kg) | Duty Cycle | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |       |       |       |     |
| ANT6    | Cell ON    | U-NII-2C | Head                   | 802.11ac (VHT80) | Mode A     | 0          | Left Touch    | 122           | 5610        | 0.183                     | 95.8%      | 17.00         | 17.00 |                |        |                 |        |          |       |       |       |     |
|         |            |          |                        |                  |            |            | Left Tilt     | 122           | 5610        | 0.247                     | 95.8%      | 17.00         | 17.00 |                |        |                 |        |          |       |       |       |     |
|         |            |          |                        |                  |            |            | Right Touch   | 122           | 5610        | 0.808                     | 95.8%      | 17.00         | 17.00 | 0.384          | 0.401  | 0.127           | 0.133  | 170      |       |       |       |     |
|         |            |          |                        |                  |            |            | Right Tilt    | 122           | 5610        | 0.598                     | 95.8%      | 17.00         | 17.00 | 0.290          | 0.303  | 0.127           | 0.133  |          |       |       |       |     |
|         |            |          | Body & Airplay         | 802.11ac (VHT80) | Mode B     | 5          | Rear          | 122           | 5610        | 0.681                     | 95.8%      | 14.50         | 14.50 | 0.287          | 0.300  | 0.087           | 0.091  | 171      |       |       |       |     |
|         |            |          |                        |                  |            |            | Front         | 122           | 5610        | 0.338                     | 95.8%      | 14.50         | 14.50 |                |        |                 |        |          |       |       |       |     |
|         |            |          | Airplay                | 802.11ac (VHT80) | Mode B     | 5          | Edge 1        | 122           | 5610        | 0.218                     | 95.8%      | 14.50         | 14.50 |                |        |                 |        |          |       |       |       |     |
|         |            |          |                        |                  |            |            | Edge 4        | 122           | 5610        | 0.917                     | 95.8%      | 14.50         | 14.50 | 0.403          | 0.421  | 0.121           | 0.126  | 172      |       |       |       |     |
| Antenna | WWAN Power | Band     | RF Exposure Conditions | Mode             | Power Mode | Dist. (mm) | Test Position | Ch #.         | Freq. (MHz) | Area Scan Max. SAR (W/kg) | Duty Cycle | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |       |       |       |     |
| ANT6    | Cell ON    | U-NII-3  | Head                   | 802.11ac (VHT80) | Mode A     | 0          | Left Touch    | 155           | 5775        | 0.339                     | 95.8%      | 17.50         | 17.50 |                |        |                 |        |          |       |       |       |     |
|         |            |          |                        |                  |            |            | Left Tilt     | 155           | 5775        | 0.346                     | 95.8%      | 17.50         | 17.50 |                |        |                 |        |          |       |       |       |     |
|         |            |          |                        |                  |            |            | Right Touch   | 155           | 5775        | 0.991                     | 95.8%      | 17.50         | 17.50 | 0.383          | 0.400  | 0.146           | 0.152  |          |       |       |       |     |
|         |            |          |                        |                  |            |            | Right Tilt    | 155           | 5775        | 0.899                     | 95.8%      | 17.50         | 17.50 | 0.386          | 0.403  | 0.129           | 0.135  | 173      |       |       |       |     |
|         |            |          | Body & Airplay         | 802.11ac (VHT80) | Mode B     | 5          | Rear          | 155           | 5775        | 0.546                     | 95.8%      | 16.00         | 16.00 | 0.325          | 0.339  | 0.080           | 0.083  | 174      |       |       |       |     |
|         |            |          |                        |                  |            |            | Front         | 155           | 5775        | 0.401                     | 95.8%      | 16.00         | 16.00 |                |        |                 |        |          |       |       |       |     |
|         |            |          | Airplay                | 802.11ac (VHT80) | Mode B     | 5          | Edge 1        | 155           | 5775        | 0.294                     | 95.8%      | 16.00         | 16.00 |                |        |                 |        |          |       |       |       |     |
|         |            |          |                        |                  |            |            | Edge 4        | 155           | 5775        | 0.795                     | 95.8%      | 16.00         | 16.00 | 0.407          | 0.425  | 0.128           | 0.134  | 175      |       |       |       |     |

## 10.23. Bluetooth

ANT3 Power Mode A the P<sub>high</sub> is same as P<sub>standalone</sub>

| Antenna                      | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | Duty Cycle | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
|------------------------------|------------------------|------|------------|------------|---------------|-------|-------------|------------|---------------|-------|----------------|--------|-----------------|--------|----------|
|                              |                        |      |            |            |               |       |             |            | Tune-up Limit | Meas. | Meas.          | Scaled | Meas.           | Scaled |          |
| ANT3 P <sub>low</sub>        | Head                   | GFSK | Mode A     | 0          | Left Touch    | 39    | 2441        | 100.0%     | 11.00         | 11.00 | 0.049          | 0.049  | 0.022           | 0.022  | 176      |
|                              |                        |      |            |            | Left Tilt     | 39    | 2441        | 100.0%     | 11.00         | 11.00 | 0.011          | 0.011  | 0.004           | 0.004  |          |
|                              |                        |      |            |            | Right Touch   | 39    | 2441        | 100.0%     | 11.00         | 11.00 | 0.021          | 0.021  | 0.009           | 0.009  |          |
|                              |                        |      |            |            | Right Tilt    | 39    | 2441        | 100.0%     | 11.00         | 11.00 | 0.015          | 0.015  | 0.006           | 0.006  |          |
|                              | Body & Hotspot         | GFSK | Mode B     | 5          | Rear          | 39    | 2441        | 100.0%     | 11.00         | 10.50 | 0.085          | 0.095  | 0.033           | 0.037  | 177      |
|                              |                        |      |            |            | Front         | 39    | 2441        | 100.0%     | 11.00         | 10.50 | 0.059          | 0.066  | 0.025           | 0.028  |          |
|                              | Hotspot                | GFSK | Mode B     | 5          | Edge 3        | 39    | 2441        | 100.0%     | 11.00         | 10.50 | 0.020          | 0.022  | 0.009           | 0.010  |          |
|                              |                        |      |            |            | Edge 4        | 39    | 2441        | 100.0%     | 11.00         | 10.50 | 0.036          | 0.040  | 0.002           | 0.002  |          |
| Antenna                      | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | Duty Cycle | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
| ANT3 P <sub>high</sub>       | Body & Hotspot         | GFSK | Mode B     | 5          | Rear          | 39    | 2441        | 100.0%     | 15.00         | 15.00 | 0.234          | 0.234  | 0.089           | 0.089  | 178      |
|                              |                        |      |            |            | Front         | 39    | 2441        | 100.0%     | 15.00         | 15.00 | 0.158          | 0.158  | 0.069           | 0.069  |          |
|                              | Hotspot                | GFSK | Mode B     | 5          | Edge 3        | 39    | 2441        | 100.0%     | 15.00         | 15.00 | 0.057          | 0.057  | 0.029           | 0.029  |          |
|                              |                        |      |            |            | Edge 4        | 39    | 2441        | 100.0%     | 15.00         | 15.00 | 0.097          | 0.097  | 0.042           | 0.042  |          |
| Antenna                      | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | Duty Cycle | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
| ANT3 P <sub>standalone</sub> | Head                   | GFSK | Mode A     | 0          | Left Touch    | 39    | 2441        | 100.0%     | 19.50         | 19.50 | 0.200          | 0.200  | 0.095           | 0.095  | 179      |
|                              |                        |      |            |            | Left Tilt     | 39    | 2441        | 100.0%     | 19.50         | 19.50 | 0.051          | 0.051  | 0.020           | 0.020  |          |
|                              |                        |      |            |            | Right Touch   | 39    | 2441        | 100.0%     | 19.50         | 19.50 | 0.129          | 0.129  | 0.072           | 0.072  |          |
|                              |                        |      |            |            | Right Tilt    | 39    | 2441        | 100.0%     | 19.50         | 19.50 | 0.128          | 0.128  | 0.056           | 0.056  |          |
|                              | Body & Hotspot         | GFSK | Mode B     | 5          | Rear          | 39    | 2441        | 100.0%     | 18.50         | 18.50 | 0.582          | 0.582  | 0.232           | 0.232  | 180      |
|                              |                        |      |            |            | Front         | 39    | 2441        | 100.0%     | 18.50         | 18.50 | 0.364          | 0.364  | 0.161           | 0.161  |          |
|                              | Hotspot                | GFSK | Mode B     | 5          | Edge 3        | 39    | 2441        | 100.0%     | 18.50         | 18.50 | 0.200          | 0.200  | 0.099           | 0.099  |          |
|                              |                        |      |            |            | Edge 4        | 39    | 2441        | 100.0%     | 18.50         | 18.50 | 0.306          | 0.306  | 0.131           | 0.131  |          |
| Antenna                      | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | Duty Cycle | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
| ANT4 P <sub>low</sub>        | Head                   | GFSK | Mode A     | 0          | Left Touch    | 39    | 2441        | 100.0%     | 8.50          | 8.50  | 0.096          | 0.096  | 0.043           | 0.043  | 181      |
|                              |                        |      |            |            | Left Tilt     | 39    | 2441        | 100.0%     | 8.50          | 8.50  | 0.068          | 0.068  | 0.031           | 0.031  |          |
|                              |                        |      |            |            | Right Touch   | 39    | 2441        | 100.0%     | 8.50          | 8.50  | 0.028          | 0.028  | 0.011           | 0.011  |          |
|                              |                        |      |            |            | Right Tilt    | 39    | 2441        | 100.0%     | 8.50          | 8.50  | 0.020          | 0.020  | 0.007           | 0.007  |          |
|                              | Body & Hotspot         | GFSK | Mode B     | 5          | Rear          | 39    | 2441        | 100.0%     | 9.00          | 9.00  | 0.095          | 0.095  | 0.044           | 0.044  | 182      |
|                              |                        |      |            |            | Front         | 39    | 2441        | 100.0%     | 9.00          | 9.00  | 0.077          | 0.077  | 0.035           | 0.035  |          |
|                              | Hotspot                | GFSK | Mode B     | 5          | Edge 1        | 39    | 2441        | 100.0%     | 9.00          | 9.00  | 0.023          | 0.023  | 0.010           | 0.010  |          |
|                              |                        |      |            |            | Edge 2        | 39    | 2441        | 100.0%     | 9.00          | 9.00  | 0.077          | 0.077  | 0.037           | 0.037  |          |
| Antenna                      | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | Duty Cycle | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
| ANT4 P <sub>high</sub>       | Head                   | GFSK | Mode A     | 0          | Left Touch    | 39    | 2441        | 100.0%     | 12.50         | 12.50 | 0.242          | 0.242  | 0.103           | 0.103  | 183      |
|                              |                        |      |            |            | Left Tilt     | 39    | 2441        | 100.0%     | 12.50         | 12.50 | 0.204          | 0.204  | 0.079           | 0.079  |          |
|                              |                        |      |            |            | Right Touch   | 39    | 2441        | 100.0%     | 12.50         | 12.50 | 0.117          | 0.117  | 0.052           | 0.052  |          |
|                              |                        |      |            |            | Right Tilt    | 39    | 2441        | 100.0%     | 12.50         | 12.50 | 0.061          | 0.061  | 0.023           | 0.023  |          |
|                              | Body & Hotspot         | GFSK | Mode B     | 5          | Rear          | 39    | 2441        | 100.0%     | 13.00         | 13.00 | 0.208          | 0.208  | 0.108           | 0.108  | 184      |
|                              |                        |      |            |            | Front         | 39    | 2441        | 100.0%     | 13.00         | 13.00 | 0.137          | 0.137  | 0.065           | 0.065  |          |
|                              | Hotspot                | GFSK | Mode B     | 5          | Edge 1        | 39    | 2441        | 100.0%     | 13.00         | 13.00 | 0.061          | 0.061  | 0.025           | 0.025  |          |
|                              |                        |      |            |            | Edge 2        | 39    | 2441        | 100.0%     | 13.00         | 13.00 | 0.168          | 0.168  | 0.078           | 0.078  |          |
| Antenna                      | RF Exposure Conditions | Mode | Power Mode | Dist. (mm) | Test Position | Ch #. | Freq. (MHz) | Duty Cycle | Power (dBm)   |       | 1-g SAR (W/kg) |        | 10-g SAR (W/kg) |        | Plot No. |
| ANT4 P <sub>standalone</sub> | Head                   | GFSK | Mode A     | 0          | Left Touch    | 39    | 2441        | 100.0%     | 16.00         | 16.00 | 0.544          | 0.544  | 0.261           | 0.261  | 185      |
|                              |                        |      |            |            | Left Tilt     | 39    | 2441        | 100.0%     | 16.00         | 16.00 | 0.504          | 0.504  | 0.253           | 0.253  |          |
|                              |                        |      |            |            | Right Touch   | 39    | 2441        | 100.0%     | 16.00         | 16.00 | 0.177          | 0.177  | 0.076           | 0.076  |          |
|                              |                        |      |            |            | Right Tilt    | 39    | 2441        | 100.0%     | 16.00         | 16.00 | 0.201          | 0.201  | 0.072           | 0.072  |          |
|                              | Body & Hotspot         | GFSK | Mode B     | 5          | Rear          | 39    | 2441        | 100.0%     | 16.50         | 16.50 | 0.586          | 0.586  | 0.264           | 0.264  | 186      |
|                              |                        |      |            |            | Front         | 39    | 2441        | 100.0%     | 16.50         | 16.50 | 0.351          | 0.351  | 0.177           | 0.177  |          |
|                              | Hotspot                | GFSK | Mode B     | 5          | Edge 1        | 39    | 2441        | 100.0%     | 16.50         | 16.50 | 0.194          | 0.194  | 0.093           | 0.093  |          |
|                              |                        |      |            |            | Edge 2        | 39    | 2441        | 100.0%     | 16.50         | 16.50 | 0.577          | 0.577  | 0.288           | 0.288  |          |

## 11. SAR Measurement Variability

In accordance with published RF Exposure KDB 865664 D01 SAR measurement 100 MHz to 6 GHz. These additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

- 1) Repeated measurement is not required when the original highest measured SAR is  $< 0.8$  or 2 W/kg (1-g or 10-g respectively); steps 2) through 4) do not apply.
- 2) When the original highest measured SAR is  $\geq 0.8$  or 2 W/kg (1-g or 10-g respectively), repeat that measurement once.
- 3) Perform a second repeated measurement only if the **ratio of largest to smallest SAR** for the original and first repeated measurements is  $> 1.20$  or when the original or repeated measurement is  $\geq 1.45$  or 3.6 W/kg (~ 10% from the 1-g or 10-g respective SAR limit).
- 4) Perform a third repeated measurement only if the original, first, or second repeated measurement is  $\geq 1.5$  or 3.75 W/kg (1-g or 10-g respectively) and the ratio of largest to smallest SAR for the original, first and second repeated measurements is  $> 1.20$ .

| Frequency Band (MHz) | Air Interface         | RF Exposure Conditions | Test Position | Repeated SAR (Yes/No) | Highest Measured SAR (W/kg) | First Repeated      |                               |
|----------------------|-----------------------|------------------------|---------------|-----------------------|-----------------------------|---------------------|-------------------------------|
|                      |                       |                        |               |                       |                             | Measured SAR (W/kg) | Largest to Smallest SAR Ratio |
| 1700                 | WCDMA Band IV         | Body & Hotspot         | Rear          | Yes                   | 0.963                       | 0.951               | 1.01                          |
| 1900                 | WCDMA Band II         | Body & Hotspot         | Rear          | Yes                   | 0.968                       | 0.959               | 1.01                          |
| 2300                 | LTE Band 30           | Hotspot                | Edge 2        | Yes                   | 0.950                       | 0.935               | 1.02                          |
| 2400                 | Wi-Fi 802.11b/g/n/ax  | Head                   | Left Tilt     | Yes                   | 1.150                       | 1.120               | 1.03                          |
| 2500                 | LTE Band 7            | Hotspot                | Edge 3        | Yes                   | 0.973                       | 0.923               | 1.05                          |
| 2600                 | LTE Band 41           | Body & Hotspot         | Rear          | Yes                   | 0.986                       | 0.956               | 1.03                          |
| 3500                 | LTE Band 48           | Body & Hotspot         | Rear          | Yes                   | 0.970                       | 0.895               | 1.08                          |
| 5200                 | Wi-Fi 802.11a/n/ac/ax | Hotspot                | Edge 4        | Yes                   | 1.070                       | 1.070               | 1.00                          |
| 5500                 | Wi-Fi 802.11a/n/ac/ax | Body & Hotspot         | Rear          | Yes                   | 1.110                       | 1.100               | 1.01                          |
| 5800                 | Wi-Fi 802.11a/n/ac/ax | Hotspot                | Edge 4        | Yes                   | 1.130                       | 1.110               | 1.02                          |

### Note(s):

Second Repeated Measurement is not required since the ratio of the largest to smallest SAR for the original and first repeated measurement is  $< 1.20$ .

## 12. Simultaneous Transmission Conditions

KDB 447498 D01 General RF Exposure Guidance provides two procedures for determining simultaneous transmission SAR test exclusion: Sum of SAR and SAR to Peak Location Ratio (SPLSR)

### Sum of SAR

To qualify for simultaneous transmission SAR test exclusion based upon Sum of SAR the sum of the reported standalone SARs for all simultaneously transmitting antennas shall be below the applicable standalone SAR limit. If the sum of the SARs is above the applicable limit then simultaneous transmission SAR test exclusion may still apply if the requirements of the SAR to Peak Location Ratio (SPLSR) evaluation are met.

### SAR to Peak Location Ratio (SPLSR)

KDB 447498 D01 General RF Exposure Guidance explains how to calculate the SAR to Peak Location Ratio (SPLSR) between pairs of simultaneously transmitting antennas:

$$SPLSR = (SAR_1 + SAR_2)^{1.5} / Ri$$

Where:

**SAR<sub>1</sub>** is the highest reported or estimated SAR for the first of a pair of simultaneous transmitting antennas, in a specific test operating mode and exposure condition

**SAR<sub>2</sub>** is the highest reported or estimated SAR for the second of a pair of simultaneous transmitting antennas, in the same test operating mode and exposure condition as the first

**Ri** is the separation distance between the pair of simultaneous transmitting antennas. When the SAR is measured, for both antennas in the pair, it is determined by the actual x, y and z coordinates in the 1-g SAR for each SAR peak location, based on the extrapolated and interpolated result in the zoom scan measurement, using the formula of  $[(x_1 - x_2)^2 + (y_1 - y_2)^2 + (z_1 - z_2)^2]$

In order for a pair of simultaneous transmitting antennas with the sum of 1-g SAR > 1.6 W/kg to qualify for exemption from Simultaneous Transmission SAR measurements, it has to satisfy the condition of:

$$(SAR_1 + SAR_2)^{1.5} / Ri \leq 0.04$$

When an individual antenna transmits at on two bands simultaneously, the sum of the highest reported SAR for the frequency bands should be used to determine **SAR<sub>1</sub>** or **SAR<sub>2</sub>**. When SPLSR is necessary, the smallest distance between the peak SAR locations for the antenna pair with respect to the peaks from each antenna should be used.

The antennas in all antenna pairs that do not qualify for simultaneous transmission SAR test exclusion must be tested for SAR compliance, according to the enlarged zoom scan and volume scan post-processing procedures in KDB Publication 865664 D01

### Simultaneous transmission SAR measurement

When simultaneous transmission SAR measurements are required in different frequency bands not covered by a single probe calibration point then separate tests for each frequency band are performed. The tests are performed using enlarged zoom scans which are processed, by means of superposition, using the DASY volume scan post-processing procedures to determine the 1-g SAR for the aggregate SAR distribution.

The spatial resolution used for all enlarged zoom scans is the same as used for the most stringent zoom scans. I.E. the scan parameters required for the highest frequency assessed are used for all enlarged zoom scans. The scans cover the complete area of the device to ensure all transmitting antennas and radiating structures are assessed.

DASY provides the ability to perform Multiband Evaluations according to the latest standards using the Volume Scan job as well as appropriate routines for the Post-processing.

In order to extract and process measurements within different frequency bands, the SEMCAD X Post-processor performs the combination and subsequent superposition of these measurement data via DASY = Combined MultiBand Averaged SAR.

Combined Multi Band Averaged SAR allows - in addition to the data extraction - an evaluation of the 1 g, 10 g and/or arbitrary averaged mass SAR.

Power Scaling Factor is used to allow the volume scans to be scaled by a value other than "1", this is important when the results need to be scaled to different maximum power levels. The Power Scaling Factor is applied to each individual point of the scan. When power scaling is used in multi-band combinations the scaling factor is applied to each individual point of the first scan, the second factor is then applied to each individual point of the second scan and so on. The scans are then combined.

### Simultaneous transmission SAR Exclusion

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 <1.6W/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.

In Airplay mode, the device uses same power and power control mechanism as Wi-Fi. Airplay is not supported in hotspot mode. Airplay utilize the same 802.11 modes, modulation, MIMO, Channel Bandwidth, etc. as Wi-Fi does. Therefore Airplay usage is categorized by the Wi-Fi SAR testing contained in Section 10.

The simultaneous transmission possibilities for this device are listed as below.

| RF Exposure Condition                                                                       | Item | Capable Transmit Configurations           |   |                                 |   |                                       |
|---------------------------------------------------------------------------------------------|------|-------------------------------------------|---|---------------------------------|---|---------------------------------------|
| Head<br><br>Body Worn Accessory<br><br>Hotspot (for 2.4 GHz)<br><br>Airplay (for 2.4/5 GHz) | 1    | WWAN OFF<br>(CELLULAR<br>ANTENNAS<br>OFF) | + | (ANT5) Wi-Fi 5 GHz SISO         | + | (ANT3) Bluetooth (P <sub>High</sub> ) |
|                                                                                             | 2    |                                           | + | (ANT6) Wi-Fi 5 GHz SISO         | + | (ANT3) Bluetooth (P <sub>High</sub> ) |
|                                                                                             | 3    |                                           | + | Wi-Fi 5 GHz MIMO <sup>7</sup>   | + | (ANT3) Bluetooth (P <sub>High</sub> ) |
|                                                                                             | 4    |                                           | + | (ANT5) Wi-Fi 5 GHz SISO         | + | (ANT4) Bluetooth (P <sub>High</sub> ) |
|                                                                                             | 5    |                                           | + | (ANT6) Wi-Fi 5 GHz SISO         | + | (ANT4) Bluetooth (P <sub>High</sub> ) |
|                                                                                             | 6    |                                           | + | Wi-Fi 5 GHz MIMO <sup>7</sup>   | + | (ANT4) Bluetooth (P <sub>High</sub> ) |
|                                                                                             | 7    |                                           | + | (ANT5) Wi-Fi 5 GHz SISO         | + | Bluetooth Beamforming <sup>7</sup>    |
|                                                                                             | 8    |                                           | + | (ANT6) Wi-Fi 5 GHz SISO         | + | Bluetooth Beamforming <sup>7</sup>    |
|                                                                                             | 9    |                                           | + | Wi-Fi 5 GHz MIMO <sup>7</sup>   | + | Bluetooth Beamforming <sup>7</sup>    |
|                                                                                             | 10   | WWAN ON<br>(CELLULAR<br>ANTENNAS<br>ON)   | + | (ANT2) Wi-Fi 2.4 GHz SISO       |   |                                       |
|                                                                                             | 11   |                                           | + | (ANT5) Wi-Fi 2.4 GHz SISO       |   |                                       |
|                                                                                             | 12   |                                           | + | Wi-Fi 2.4 GHz MIMO <sup>7</sup> |   |                                       |
|                                                                                             | 13   |                                           |   |                                 | + | (ANT3) Bluetooth (P <sub>High</sub> ) |
|                                                                                             | 14   |                                           |   |                                 | + | (ANT4) Bluetooth (P <sub>High</sub> ) |
|                                                                                             | 15   |                                           |   |                                 | + | Bluetooth Beamforming <sup>7</sup>    |
|                                                                                             | 16   |                                           | + | (ANT5) Wi-Fi 5 GHz SISO         |   |                                       |
|                                                                                             | 17   |                                           | + | (ANT6) Wi-Fi 5 GHz SISO         |   |                                       |
|                                                                                             | 18   |                                           | + | Wi-Fi 5 GHz MIMO <sup>7</sup>   |   |                                       |
|                                                                                             | 19   |                                           | + | (ANT5) Wi-Fi 5 GHz SISO         | + | (ANT3) Bluetooth (P <sub>Low</sub> )  |
|                                                                                             | 20   |                                           | + | (ANT6) Wi-Fi 5 GHz SISO         | + | (ANT3) Bluetooth (P <sub>Low</sub> )  |
|                                                                                             | 21   |                                           | + | Wi-Fi 5 GHz MIMO <sup>7</sup>   | + | (ANT3) Bluetooth (P <sub>Low</sub> )  |
|                                                                                             | 22   |                                           | + | (ANT5) Wi-Fi 5 GHz SISO         | + | (ANT4) Bluetooth (P <sub>Low</sub> )  |
|                                                                                             | 23   |                                           | + | (ANT6) Wi-Fi 5 GHz SISO         | + | (ANT4) Bluetooth (P <sub>Low</sub> )  |
|                                                                                             | 24   |                                           | + | Wi-Fi 5 GHz MIMO <sup>7</sup>   | + | (ANT4) Bluetooth (P <sub>Low</sub> )  |
|                                                                                             | 25   |                                           | + | (ANT5) Wi-Fi 5 GHz SISO         | + | Bluetooth Beamforming <sup>7</sup>    |
|                                                                                             | 26   |                                           | + | (ANT6) Wi-Fi 5 GHz SISO         | + | Bluetooth Beamforming <sup>7</sup>    |
|                                                                                             | 27   |                                           | + | Wi-Fi 5 GHz MIMO <sup>7</sup>   | + | Bluetooth Beamforming <sup>7</sup>    |

#### Note(s):

- Wi-Fi 2.4GHz & Bluetooth cannot transmit simultaneously.
- Wi-Fi 2.4GHz & Wi-Fi 5GHz cannot transmit simultaneously.
- WWAN ANT1, ANT2, ANT3, ANT4 and ANT6 cannot transmit simultaneously.
- Bluetooth P<sub>Low</sub> is used with Wi-Fi and WWAN antennas are active.
- Bluetooth P<sub>High</sub> is used when Wi-Fi antenna is active and WWAN antenna is inactive or with Wi-Fi inactive and WWAN antenna is active.
- Bluetooth P<sub>standalone</sub> is used with Wi-Fi and WWAN antennas are inactive.

7. Wi-Fi SISO mode SAR result can also represent for MIMO mode SAR and is used for MIMO mode simultaneous transmission analysis because antennas are not overlapping and the MIMO mode maximum power is equal or less than SISO mode.

### 12.1. Sum of the SAR for WWAN Cell-off & Wi-Fi & BT results

| RF Exposure conditions | Test Position | Standalone SAR (W/kg) |               |                             |                             | $\Sigma$ 1-g SAR (W/kg) |       |       |       |
|------------------------|---------------|-----------------------|---------------|-----------------------------|-----------------------------|-------------------------|-------|-------|-------|
|                        |               | 1                     | 2             | 3                           | 4                           | 1+3                     | 1+4   | 2+3   | 2+4   |
|                        |               | Wi-Fi 5G ANT5         | Wi-Fi 5G ANT6 | BT(P <sub>high</sub> ) ANT3 | BT(P <sub>high</sub> ) ANT4 |                         |       |       |       |
| Head                   | Left Touch    | 0.044                 | 0.672         | 0.200                       | 0.242                       | 0.244                   | 0.286 | 0.872 | 0.914 |
|                        | Left Tilt     | 0.016                 | 0.793         | 0.051                       | 0.204                       | 0.067                   | 0.220 | 0.844 | 0.997 |
|                        | Right Touch   | 0.016                 | 1.158         | 0.129                       | 0.117                       | 0.145                   | 0.133 | 1.287 | 1.275 |
|                        | Right Tilt    | 0.041                 | 1.085         | 0.128                       | 0.061                       | 0.169                   | 0.102 | 1.213 | 1.146 |
| Body-worn & Hotspot    | Rear          | 1.158                 | 1.106         | 0.234                       | 0.208                       | 1.392                   | 1.366 | 1.340 | 1.314 |
|                        | Front         | 0.382                 | 0.418         | 0.158                       | 0.137                       | 0.540                   | 0.519 | 0.576 | 0.555 |
| Hotspot                | Edge 1        |                       | 0.418         |                             | 0.061                       |                         | 0.061 | 0.418 | 0.479 |
|                        | Edge 2        |                       |               |                             | 0.168                       |                         | 0.168 |       | 0.168 |
|                        | Edge 3        | 0.382                 |               | 0.057                       |                             | 0.439                   | 0.382 | 0.057 |       |
|                        | Edge 4        | 0.382                 | 1.179         | 0.097                       |                             | 0.479                   | 0.382 | 1.276 | 1.179 |

### 12.2. Sum of the SAR for WWAN Cell-on(ANT1) & Wi-Fi & BT results

| RF Exposure conditions | Test Position | Standalone SAR (W/kg) |                 |                 |                             |                             | $\Sigma$ 1-g SAR (W/kg) |       |       |       |
|------------------------|---------------|-----------------------|-----------------|-----------------|-----------------------------|-----------------------------|-------------------------|-------|-------|-------|
|                        |               | 1                     | 2               | 3               | 6                           | 7                           | 1+2                     | 1+3   | 1+6   | 1+7   |
|                        |               | WWAN Cell-on ANT1     | Wi-Fi 2.4G ANT3 | Wi-Fi 2.4G ANT4 | BT(P <sub>high</sub> ) ANT3 | BT(P <sub>high</sub> ) ANT4 |                         |       |       |       |
| Head                   | Left Touch    | 0.319                 | 0.233           | 0.480           | 0.200                       | 0.242                       | 0.552                   | 0.799 | 0.519 | 0.561 |
|                        | Left Tilt     | 0.274                 | 0.233           | 0.323           | 0.051                       | 0.204                       | 0.507                   | 0.597 | 0.325 | 0.478 |
|                        | Right Touch   | 0.607                 | 0.233           | 0.323           | 0.129                       | 0.117                       | 0.840                   | 0.930 | 0.736 | 0.724 |
|                        | Right Tilt    | 0.241                 | 0.233           | 0.323           | 0.128                       | 0.061                       | 0.474                   | 0.564 | 0.369 | 0.302 |
| Body-worn & Hptspot    | Rear          | 0.998                 | 0.392           | 0.482           | 0.234                       | 0.208                       | 1.390                   | 1.480 | 1.232 | 1.206 |
|                        | Front         | 0.752                 | 0.392           | 0.266           | 0.158                       | 0.137                       | 1.144                   | 1.018 | 0.910 | 0.889 |
| Hotspot                | Edge 2        | 0.983                 |                 | 0.266           |                             | 0.168                       | 0.983                   | 1.249 | 0.983 | 1.151 |
|                        | Edge 3        | 0.984                 | 0.392           |                 | 0.057                       |                             | 1.376                   | 0.984 | 1.041 | 0.984 |
|                        | Edge 4        | 0.422                 | 0.392           |                 | 0.097                       |                             | 0.814                   | 0.422 | 0.519 | 0.422 |
| RF Exposure conditions | Test Position | Standalone SAR (W/kg) |                 |                 |                             |                             | $\Sigma$ 1-g SAR (W/kg) |       |       |       |
|                        |               | 1                     | 4               | 5               | 8                           | 9                           | 1+4+8                   | 1+4+9 | 1+5+8 | 1+5+9 |
|                        |               | WWAN Cell-on ANT1     | Wi-Fi 5G ANT5   | Wi-Fi 5G ANT6   | BT(P <sub>Low</sub> ) ANT3  | BT(P <sub>Low</sub> ) ANT4  |                         |       |       |       |
| Head                   | Left Touch    | 0.319                 | 0.044           | 0.431           | 0.049                       | 0.096                       | 0.412                   | 0.459 | 0.799 | 0.846 |
|                        | Left Tilt     | 0.274                 | 0.016           | 0.431           | 0.011                       | 0.068                       | 0.301                   | 0.358 | 0.716 | 0.773 |
|                        | Right Touch   | 0.607                 | 0.016           | 0.443           | 0.021                       | 0.028                       | 0.644                   | 0.651 | 1.072 | 1.079 |
|                        | Right Tilt    | 0.241                 | 0.041           | 0.431           | 0.015                       | 0.020                       | 0.297                   | 0.302 | 0.687 | 0.692 |
| Body-worn & Hptspot    | Rear          | 0.998                 | 0.334           | 0.365           | 0.095                       | 0.095                       | 1.427                   | 1.427 | 1.458 | 1.457 |
|                        | Front         | 0.752                 | 0.334           | 0.365           | 0.066                       | 0.077                       | 1.152                   | 1.162 | 1.182 | 1.193 |
| Hotspot                | Edge 2        | 0.983                 |                 |                 |                             | 0.077                       | 0.983                   | 1.060 | 0.983 | 1.060 |
|                        | Edge 3        | 0.984                 | 0.334           |                 | 0.022                       |                             | 1.341                   | 1.318 | 1.007 | 0.984 |
|                        | Edge 4        | 0.422                 | 0.334           | 0.425           | 0.040                       |                             | 0.796                   | 0.756 | 0.887 | 0.847 |

**12.3. Sum of the SAR for WWAN Cell-on(ANT2) & Wi-Fi & BT results**

| RF Exposure conditions | Test Position | Standalone SAR (W/kg) |                 |                 |                             |                             | $\Sigma$ 1-g SAR (W/kg) |       |       |       |
|------------------------|---------------|-----------------------|-----------------|-----------------|-----------------------------|-----------------------------|-------------------------|-------|-------|-------|
|                        |               | 1                     | 2               | 3               | 6                           | 7                           | 1+2                     | 1+3   | 1+6   | 1+7   |
|                        |               | WWAN Cell-on ANT2     | Wi-Fi 2.4G ANT3 | Wi-Fi 2.4G ANT4 | BT(P <sub>high</sub> ) ANT3 | BT(P <sub>high</sub> ) ANT4 |                         |       |       |       |
| Head                   | Left Touch    | 0.780                 | 0.233           | 0.480           | 0.200                       | 0.242                       | 1.013                   | 1.260 | 0.980 | 1.022 |
|                        | Left Tilt     | 0.896                 | 0.233           | 0.323           | 0.051                       | 0.204                       | 1.129                   | 1.219 | 0.947 | 1.100 |
|                        | Right Touch   | 0.892                 | 0.233           | 0.323           | 0.129                       | 0.117                       | 1.125                   | 1.215 | 1.021 | 1.009 |
|                        | Right Tilt    | 0.899                 | 0.233           | 0.323           | 0.128                       | 0.061                       | 1.132                   | 1.222 | 1.027 | 0.960 |
| Body-worn & Hptspot    | Rear          | 0.899                 | 0.392           | 0.482           | 0.234                       | 0.208                       | 1.291                   | 1.381 | 1.133 | 1.107 |
|                        | Front         | 0.486                 | 0.392           | 0.266           | 0.158                       | 0.137                       | 0.878                   | 0.752 | 0.644 | 0.623 |
| Hotspot                | Edge 1        | 0.890                 |                 | 0.266           |                             | 0.168                       | 0.890                   | 1.156 | 0.890 | 1.058 |
|                        | Edge 2        | 0.282                 |                 | 0.266           |                             | 0.168                       | 0.282                   | 0.548 | 0.282 | 0.450 |
|                        | Edge 4        | 0.745                 | 0.392           |                 | 0.097                       |                             | 1.137                   | 0.745 | 0.842 | 0.745 |
| RF Exposure conditions | Test Position | Standalone SAR (W/kg) |                 |                 |                             |                             | $\Sigma$ 1-g SAR (W/kg) |       |       |       |
|                        |               | 1                     | 4               | 5               | 8                           | 9                           | 1+4+8                   | 1+4+9 | 1+5+8 | 1+5+9 |
|                        |               | WWAN Cell-on ANT2     | Wi-Fi 5G ANT5   | Wi-Fi 5G ANT6   | BT(P <sub>Low</sub> ) ANT3  | BT(P <sub>Low</sub> ) ANT4  |                         |       |       |       |
| Head                   | Left Touch    | 0.780                 | 0.044           | 0.431           | 0.049                       | 0.096                       | 0.873                   | 0.920 | 1.260 | 1.307 |
|                        | Left Tilt     | 0.896                 | 0.016           | 0.431           | 0.011                       | 0.068                       | 0.923                   | 0.980 | 1.338 | 1.395 |
|                        | Right Touch   | 0.892                 | 0.016           | 0.443           | 0.021                       | 0.028                       | 0.929                   | 0.936 | 1.356 | 1.363 |
|                        | Right Tilt    | 0.899                 | 0.041           | 0.431           | 0.015                       | 0.020                       | 0.955                   | 0.960 | 1.345 | 1.350 |
| Body-worn & Hptspot    | Rear          | 0.899                 | 0.334           | 0.365           | 0.095                       | 0.095                       | 1.328                   | 1.328 | 1.359 | 1.359 |
|                        | Front         | 0.486                 | 0.334           | 0.365           | 0.066                       | 0.077                       | 0.886                   | 0.897 | 0.917 | 0.927 |
| Hotspot                | Edge 1        | 0.890                 |                 | 0.365           |                             | 0.077                       | 0.890                   | 0.967 | 1.255 | 1.332 |
|                        | Edge 2        | 0.282                 |                 |                 |                             | 0.077                       | 0.282                   | 0.359 | 0.282 | 0.359 |
|                        | Edge 4        | 0.745                 | 0.334           | 0.425           | 0.040                       |                             | 1.119                   | 1.078 | 1.210 | 1.170 |

**12.4. Sum of the SAR for WWAN Cell-on(ANT3) & Wi-Fi & BT results**

| RF Exposure conditions | Test Position | Standalone SAR (W/kg) |                 |                 |                             |                             | $\Sigma$ 1-g SAR (W/kg) |       |       |       |
|------------------------|---------------|-----------------------|-----------------|-----------------|-----------------------------|-----------------------------|-------------------------|-------|-------|-------|
|                        |               | 1                     | 2               | 3               | 6                           | 7                           | 1+2                     | 1+3   | 1+6   | 1+7   |
|                        |               | WWAN Cell-on ANT3     | Wi-Fi 2.4G ANT3 | Wi-Fi 2.4G ANT4 | BT(P <sub>high</sub> ) ANT3 | BT(P <sub>high</sub> ) ANT4 |                         |       |       |       |
| Head                   | Left Touch    | 0.480                 | 0.233           | 0.480           | 0.200                       | 0.242                       | 0.713                   | 0.960 | 0.680 | 0.722 |
|                        | Left Tilt     | 0.255                 | 0.233           | 0.323           | 0.051                       | 0.204                       | 0.488                   | 0.578 | 0.306 | 0.459 |
|                        | Right Touch   | 0.285                 | 0.233           | 0.323           | 0.129                       | 0.117                       | 0.518                   | 0.608 | 0.414 | 0.402 |
|                        | Right Tilt    | 0.291                 | 0.233           | 0.323           | 0.128                       | 0.061                       | 0.524                   | 0.614 | 0.419 | 0.352 |
| Body-worn & Hptspot    | Rear          | 0.997                 | 0.392           | 0.482           | 0.234                       | 0.208                       | 1.389                   | 1.479 | 1.231 | 1.205 |
|                        | Front         | 0.724                 | 0.392           | 0.266           | 0.158                       | 0.137                       | 1.116                   | 0.990 | 0.882 | 0.861 |
| Hotspot                | Edge 3        | 0.402                 | 0.392           |                 | 0.057                       |                             | 0.794                   | 0.402 | 0.459 | 0.402 |
|                        | Edge 4        | 0.725                 | 0.392           |                 | 0.097                       |                             | 1.117                   | 0.725 | 0.822 | 0.725 |

| RF Exposure conditions | Test Position | Standalone SAR (W/kg) |               |               |                            |                            | $\sum$ 1-g SAR (W/kg) |       |       |       |
|------------------------|---------------|-----------------------|---------------|---------------|----------------------------|----------------------------|-----------------------|-------|-------|-------|
|                        |               | 1                     | 4             | 5             | 8                          | 9                          | 1+4+8                 | 1+4+9 | 1+5+8 | 1+5+9 |
|                        |               | WWAN Cell-on ANT3     | Wi-Fi 5G ANT5 | Wi-Fi 5G ANT6 | BT(P <sub>Low</sub> ) ANT3 | BT(P <sub>Low</sub> ) ANT4 |                       |       |       |       |
| Head                   | Left Touch    | 0.480                 | 0.044         | 0.431         | 0.049                      | 0.096                      | 0.573                 | 0.620 | 0.960 | 1.007 |
|                        | Left Tilt     | 0.255                 | 0.016         | 0.431         | 0.011                      | 0.068                      | 0.282                 | 0.339 | 0.698 | 0.754 |
|                        | Right Touch   | 0.285                 | 0.016         | 0.443         | 0.021                      | 0.028                      | 0.322                 | 0.329 | 0.749 | 0.756 |
|                        | Right Tilt    | 0.291                 | 0.041         | 0.431         | 0.015                      | 0.020                      | 0.346                 | 0.351 | 0.737 | 0.742 |
| Body-worn & Htpspot    | Rear          | 0.997                 | 0.334         | 0.365         | 0.095                      | 0.095                      | 1.426                 | 1.426 | 1.457 | 1.456 |
|                        | Front         | 0.724                 | 0.334         | 0.365         | 0.066                      | 0.077                      | 1.124                 | 1.135 | 1.154 | 1.165 |
| Hotspot                | Edge 3        | 0.402                 | 0.334         |               | 0.022                      |                            | 0.758                 | 0.736 | 0.424 | 0.402 |
|                        | Edge 4        | 0.725                 | 0.334         | 0.425         | 0.040                      |                            | 1.099                 | 1.059 | 1.190 | 1.150 |

## 12.5. Sum of the SAR for WWAN Cell-on(ANT4) & Wi-Fi & BT results

| RF Exposure conditions | Test Position | Standalone SAR (W/kg) |                 |                 |                             |                             | $\sum$ 1-g SAR (W/kg) |       |       |       |
|------------------------|---------------|-----------------------|-----------------|-----------------|-----------------------------|-----------------------------|-----------------------|-------|-------|-------|
|                        |               | 1                     | 2               | 3               | 6                           | 7                           | 1+2                   | 1+3   | 1+6   | 1+7   |
|                        |               | WWAN Cell-on ANT4     | Wi-Fi 2.4G ANT3 | Wi-Fi 2.4G ANT4 | BT(P <sub>high</sub> ) ANT3 | BT(P <sub>high</sub> ) ANT4 |                       |       |       |       |
| Head                   | Left Touch    | 0.897                 | 0.233           | 0.480           | 0.200                       | 0.242                       | 1.130                 | 1.377 | 1.097 | 1.139 |
|                        | Left Tilt     | 0.628                 | 0.233           | 0.323           | 0.051                       | 0.204                       | 0.861                 | 0.951 | 0.679 | 0.832 |
|                        | Right Touch   | 0.294                 | 0.233           | 0.323           | 0.129                       | 0.117                       | 0.527                 | 0.617 | 0.423 | 0.411 |
|                        | Right Tilt    | 0.288                 | 0.233           | 0.323           | 0.128                       | 0.061                       | 0.521                 | 0.611 | 0.416 | 0.349 |
| Body-worn & Htpspot    | Rear          | 0.897                 | 0.392           | 0.482           | 0.234                       | 0.208                       | 1.289                 | 1.379 | 1.131 | 1.105 |
|                        | Front         | 0.588                 | 0.392           | 0.266           | 0.158                       | 0.137                       | 0.980                 | 0.854 | 0.746 | 0.725 |
| Hotspot                | Edge 1        | 0.466                 |                 | 0.266           |                             | 0.168                       | 0.466                 | 0.732 | 0.466 | 0.634 |
|                        | Edge 2        | 0.899                 |                 | 0.266           |                             | 0.168                       | 0.899                 | 1.165 | 0.899 | 1.067 |
| RF Exposure conditions | Test Position | Standalone SAR (W/kg) |                 |                 |                             |                             | $\sum$ 1-g SAR (W/kg) |       |       |       |
|                        |               | 1                     | 4               | 5               | 8                           | 9                           | 1+4+8                 | 1+4+9 | 1+5+8 | 1+5+9 |
|                        |               | WWAN Cell-on ANT4     | Wi-Fi 5G ANT5   | Wi-Fi 5G ANT6   | BT(P <sub>Low</sub> ) ANT3  | BT(P <sub>Low</sub> ) ANT4  |                       |       |       |       |
| Head                   | Left Touch    | 0.897                 | 0.044           | 0.431           | 0.049                       | 0.096                       | 0.990                 | 1.037 | 1.377 | 1.424 |
|                        | Left Tilt     | 0.628                 | 0.016           | 0.431           | 0.011                       | 0.068                       | 0.655                 | 0.712 | 1.070 | 1.127 |
|                        | Right Touch   | 0.294                 | 0.016           | 0.443           | 0.021                       | 0.028                       | 0.330                 | 0.337 | 0.758 | 0.765 |
|                        | Right Tilt    | 0.288                 | 0.041           | 0.431           | 0.015                       | 0.020                       | 0.343                 | 0.348 | 0.734 | 0.739 |
| Body-worn & Htpspot    | Rear          | 0.897                 | 0.334           | 0.365           | 0.095                       | 0.095                       | 1.326                 | 1.326 | 1.357 | 1.357 |
|                        | Front         | 0.588                 | 0.334           | 0.365           | 0.066                       | 0.077                       | 0.988                 | 0.999 | 1.019 | 1.030 |
| Hotspot                | Edge 1        | 0.466                 |                 | 0.365           |                             | 0.077                       | 0.466                 | 0.543 | 0.831 | 0.908 |
|                        | Edge 2        | 0.899                 |                 |                 |                             | 0.077                       | 0.899                 | 0.976 | 0.899 | 0.976 |

**12.6. Sum of the SAR for WWAN Cell-on(ANT6) & Wi-Fi & BT results**

| RF Exposure conditions | Test Position | Standalone SAR (W/kg) |                 |                 |                             |                             | $\Sigma$ 1-g SAR (W/kg) |       |       |       |
|------------------------|---------------|-----------------------|-----------------|-----------------|-----------------------------|-----------------------------|-------------------------|-------|-------|-------|
|                        |               | 1                     | 2               | 3               | 6                           | 7                           | 1+2                     | 1+3   | 1+6   | 1+7   |
|                        |               | WWAN Cell-on ANT6     | Wi-Fi 2.4G ANT3 | Wi-Fi 2.4G ANT4 | BT(P <sub>high</sub> ) ANT3 | BT(P <sub>high</sub> ) ANT4 |                         |       |       |       |
| Head                   | Left Touch    | 0.095                 | 0.233           | 0.480           | 0.200                       | 0.242                       | 0.328                   | 0.575 | 0.295 | 0.337 |
|                        | Left Tilt     | 0.148                 | 0.233           | 0.323           | 0.051                       | 0.204                       | 0.381                   | 0.471 | 0.199 | 0.352 |
|                        | Right Touch   | 0.174                 | 0.233           | 0.323           | 0.129                       | 0.117                       | 0.407                   | 0.497 | 0.303 | 0.291 |
|                        | Right Tilt    | 0.175                 | 0.233           | 0.323           | 0.128                       | 0.061                       | 0.408                   | 0.498 | 0.303 | 0.236 |
| Body-worn & Hptspot    | Rear          | 0.521                 | 0.392           | 0.482           | 0.234                       | 0.208                       | 0.913                   | 1.003 | 0.755 | 0.729 |
|                        | Front         | 0.078                 | 0.392           | 0.266           | 0.158                       | 0.137                       | 0.470                   | 0.344 | 0.236 | 0.215 |
| Hotspot                | Edge 1        | 0.141                 |                 | 0.266           |                             | 0.168                       | 0.141                   | 0.407 | 0.141 | 0.309 |
|                        | Edge 4        | 0.161                 | 0.392           |                 | 0.097                       |                             | 0.553                   | 0.161 | 0.258 | 0.161 |
| RF Exposure conditions | Test Position | Standalone SAR (W/kg) |                 |                 |                             |                             | $\Sigma$ 1-g SAR (W/kg) |       |       |       |
|                        |               | 1                     | 4               | 5               | 8                           | 9                           | 1+4+8                   | 1+4+9 | 1+5+8 | 1+5+9 |
|                        |               | WWAN Cell-on ANT6     | Wi-Fi 5G ANT5   | Wi-Fi 5G ANT6   | BT(P <sub>Low</sub> ) ANT3  | BT(P <sub>Low</sub> ) ANT4  |                         |       |       |       |
| Head                   | Left Touch    | 0.095                 | 0.044           | 0.431           | 0.049                       | 0.096                       | 0.188                   | 0.235 | 0.575 | 0.622 |
|                        | Left Tilt     | 0.148                 | 0.016           | 0.431           | 0.011                       | 0.068                       | 0.175                   | 0.232 | 0.590 | 0.647 |
|                        | Right Touch   | 0.174                 | 0.016           | 0.443           | 0.021                       | 0.028                       | 0.211                   | 0.218 | 0.638 | 0.645 |
|                        | Right Tilt    | 0.175                 | 0.041           | 0.431           | 0.015                       | 0.020                       | 0.231                   | 0.236 | 0.621 | 0.626 |
| Body-worn & Hptspot    | Rear          | 0.521                 | 0.334           | 0.365           | 0.095                       | 0.095                       | 0.950                   | 0.950 | 0.981 | 0.980 |
|                        | Front         | 0.078                 | 0.334           | 0.365           | 0.066                       | 0.077                       | 0.478                   | 0.489 | 0.509 | 0.519 |
| Hotspot                | Edge 1        | 0.141                 |                 | 0.365           |                             | 0.077                       | 0.141                   | 0.218 | 0.506 | 0.583 |
|                        | Edge 4        | 0.161                 | 0.334           | 0.425           | 0.040                       |                             | 0.535                   | 0.495 | 0.626 | 0.586 |

## **Appendixes**

**Refer to separated files for the following appendixes.**

**Appendix A: SAR Setup Photos**

**Appendix B: SAR System Check Plots**

**Appendix C: SAR Highest Test Plots**

**Appendix D: SAR Tissue Ingredients**

**Appendix E: SAR Probe Certificates**

**Appendix F: SAR Dipole Certificates**

**Appendix G: LTE Down-Link Carrier Aggregation**

**Appendix H: Body Detect Validation**

**END OF REPORT**