



No. 24T04Z101872-010



# SAR TEST REPORT

No. 24T04Z101872-010

For

**Xiaomi Communications Co., Ltd.**

**Mobile Phone**

**Model Name: 24116RACCG**

with

**Hardware Version: 135100006**

**Software Version: Xiaomi HyperOS 1.0**

**FCC ID: 2AFZZRACCG**

**Issued Date: 2024-10-8**

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Test Laboratory:

**CTTL, Telecommunication Technology Labs, CAICT**

No. 52, Huayuan North Road, Haidian District, Beijing, P. R. China 100191.

Tel:+86(0)10-62304633-2512, Fax:+86(0)10-62304633-2504

Email: [cttl\\_terminals@caict.ac.cn](mailto:cttl_terminals@caict.ac.cn), website: [www.caict.ac.cn](http://www.caict.ac.cn)

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**REPORT HISTORY**

| <b>Report Number</b> | <b>Revision</b> | <b>Issue Date</b> | <b>Description</b>   |
|----------------------|-----------------|-------------------|--|
| 24T04Z101872-010     | Rev.0           | 2024-9-26         | Initial creation of test report  |
| 24T04Z101872-010     | Rev.1           | 2024-10-8         | <ol style="list-style-type: none"><li>1. Add scaling factor in section14 from page152 to page162.</li><li>2. Revise conductive power table of WIFI2.4G on page143.</li></ol> |

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## 1 Test Laboratory

### 1.1 Introduction & Accreditation

**Telecommunication Technology Labs, CAICT** is an ISO/IEC 17025:2017 accredited test laboratory under American Association for Laboratory Accreditation (A2LA) with lab code 7049.01, and is also an FCC accredited test laboratory (CN5017), and ISED accredited test laboratory (CAB identifier:CN0066). The detail accreditation scope can be found on A2LA website.

### 1.2 Testing Location

|               |  |
|---------------|--|
| Company Name: | CTTL   |
| Address:      | No. 52, Huayuan North Road, Haidian District, Beijing, P. R. China 100191. |

### 1.3 Testing Environment

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

### 1.4 Project Data


|                     |                    |
|---------------------|--------------------|
| Project Leader:     | Qi Dianyuan        |
| Test Engineer:      | Yao Juming         |
| Testing Start Date: | September 7, 2024  |
| Testing End Date:   | September 21, 2024 |

### 1.5 Signature

姚聚明

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**Yao Juming**  
(Prepared this test report)



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**Qi Dianyuan**  
(Reviewed this test report)

陆冰松

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**Lu Bingsong**  
Deputy Director of the laboratory  
(Approved this test report)

## 2 Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for Xiaomi Communications Co., Ltd. Mobile Phone, 24116RACCG is as follows:

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

| Technology Band | Antenna | Head (Separation Distance 0mm) | Body-Worn (Separation Distance 15mm) | Hotspot (Separation Distance 10mm) | Phablet SAR(10g) (Separation Distance 0mm) | Equipment Class |
|-----------------|---------|--------------------------------|--------------------------------------|------------------------------------|--|-----------------|
| GSM850          | ANT1    | 0.19                           | 0.20                                 | 0.36                               | /  | PCE             |
| GSM850          | ANT4    | 0.82                           | 0.20                                 | 0.32                               | /  |                 |
| PCS 1900        | ANT1    | 0.04                           | 0.46                                 | 0.94                               | 2.56                                       |                 |
| PCS 1900        | ANT4    | 1.02                           | 0.93                                 | 0.67                               | /  |                 |
| UMTS FDD 2      | ANT1    | 0.15                           | 0.95                                 | 0.80                               | 2.11                                       |                 |
| UMTS FDD 2      | ANT4    | 0.81                           | 0.53                                 | 0.85                               | 2.57                                       |                 |
| UMTS FDD 4      | ANT1    | 0.15                           | 0.80                                 | 0.84                               | 2.50                                       |                 |
| UMTS FDD 4      | ANT4    | 0.79                           | 0.50                                 | 0.82                               | /  |                 |
| UMTS FDD 5      | ANT1    | 0.25                           | 0.24                                 | 0.42                               | /  |                 |
| UMTS FDD 5      | ANT4    | 0.71                           | 0.25                                 | 0.31                               | /  |                 |
| LTE B2          | ANT1    | 0.10                           | 0.89                                 | 0.72                               | 2.20                                       |                 |
| LTE B2          | ANT4    | 1.03                           | 0.99                                 | 1.01                               | 2.41                                       |                 |
| LTE B7          | ANT1    | 0.50                           | 0.29                                 | 0.47                               | /  |                 |
| LTE B7          | ANT4    | 0.94                           | 0.67                                 | 0.99                               | /  |                 |
| LTE B12(B17)    | ANT1    | 0.15                           | 0.20                                 | 0.29                               | /  |                 |
| LTE B12(B17)    | ANT4    | 0.52                           | 0.15                                 | 0.20                               | /  |                 |
| LTE B13         | ANT1    | 0.23                           | 0.24                                 | 0.33                               | /  |                 |
| LTE B13         | ANT4    | 0.26                           | 0.11                                 | 0.12                               | /  |                 |
| LTE B26(B5)     | ANT1    | 0.27                           | 0.23                                 | 0.42                               | /  |                 |
| LTE B26(B5)     | ANT4    | 0.93                           | 0.23                                 | 0.35                               | /  |                 |
| LTE B41(B38)    | ANT1    | 0.31                           | 0.27                                 | 0.47                               | /  |                 |
| LTE B41(B38)    | ANT4    | 0.97                           | 0.45                                 | 0.97                               | /  |                 |
| LTE B66(B4)     | ANT1    | 0.12                           | 0.79                                 | 0.77                               | 2.34                                       |                 |
| LTE B66(B4)     | ANT4    | 0.66                           | 0.77                                 | 0.72                               | /  |                 |
| WLAN 2.4G       | ANT7    | 0.45                           | 0.07                                 | 0.18                               | 0.86                                       | DTS             |
| WLAN 5G         | ANT7    | 0.44                           | 0.42                                 | 0.79                               | 0.59                                       | NII             |
| BT              | ANT7    | 0.16                           | 0.03                                 | 0.07                               | 0.21                                       | DSS             |

Note1: This DUT has NFC operations. The NFC antenna is integrated into the device for this model. According to KDB 447498 D01 v06 and KDB 648474 D04 v01r03 chapter 8, all SAR tests were performed and evaluated with the device which already incorporates the NFC antenna.

Note2:

This device supports both LTE B4/B5/B17/B38, and LTE B66/B26/B12/B41. Since the supported frequency span for LTE B4/B5/B17/B38 falls completely within the supports frequency span for LTE B66/B26/B12/B41, both bands have the same target power, and both bands share the same transmission path; therefore, SAR was only assessed for LTE B66/B26/B12/B41.

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

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

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

The measurement together with the test system set-up is described in annex C of this test report. A detailed description of the equipment under test can be found in chapter 4 of this test report. The highest reported SAR value is obtained at the case of **(Table 2.1)**, and the values are:

**Head: 1.03 W/kg (1g)**

**Hotspot: 1.01 W/kg (1g)**

**Body-worn: 0.99 W/kg (1g)**

**Limb SAR: 2.57 W/kg (10g)**

**Table 2.2: The sum of SAR values for Main antenna + WIFI2.4G**

|                                   | Position                       | Main antenna | WIFI2.4G | Sum         |
|-----------------------------------|--------------------------------|--------------|----------|-------------|
| <b>Highest SAR value for Head</b> | Right head, Tilt (LTE B2-ANT4) | 1.03         | 0.45     | <b>1.48</b> |
| <b>Highest SAR value for Body</b> | Top 10mm (LTE B2-ANT4)         | 1.01         | 0.18     | <b>1.19</b> |
| <b>Highest SAR value for Limb</b> | Top 0mm (WCDMA B2-ANT4)        | 2.57         | 0.86     | <b>3.43</b> |

Note: VoLTE or pre-installed VOIP applications are considered.

**Table 2.3: The sum of SAR values for Main antenna+WIFI5G+BT**

|                                   | Position                       | Main antenna | WIFI5G | BT   | Sum         |
|-----------------------------------|--------------------------------|--------------|--------|------|-------------|
| <b>Highest SAR value for Head</b> | Right head, Tilt (LTE B2-ANT4) | 1.03         | 0.30   | 0.16 | <b>1.49</b> |
| <b>Highest SAR value for Body</b> | Rear 10mm (LTE B2-ANT4)        | 0.70         | 0.79   | 0.07 | <b>1.56</b> |
| <b>Highest SAR value for Limb</b> | Top 0mm (WCDMA B2-ANT4)        | 2.57         | 0.59   | 0.21 | <b>3.37</b> |

Note: VoLTE or pre-installed VOIP applications are considered.

### Conclusion:

According to the above tables, the sum of reported SAR values is < 1.6W/kg. So the simultaneous transmission SAR with volume scans is not required.

According to the above tables, the highest sum of reported SAR values is **1.56 W/kg (1g)**. The detail for simultaneous transmission consideration is described in chapter 13.





### 3 Client Information

#### 3.1 Applicant Information

|                 |   |
|-----------------|---|
| Company Name:   | Xiaomi Communications Co., Ltd.   |
| Address/Post:   | #019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085 |
| Contact Person: | Zeng Qingyao  |
| Contact Email:  | mi-compliance@xiaomi.com  |
| Telephone:      | 010-60606666-8088   |
| Fax:            | 010-60606666-1101   |

#### 3.2 Manufacturer Information

|                 |   |
|-----------------|---|
| Company Name:   | Xiaomi Communications Co., Ltd.   |
| Address/Post:   | #019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085 |
| Contact Person: | Zeng Qingyao  |
| Contact Email:  | mi-compliance@xiaomi.com  |
| Telephone:      | 010-60606666-8088   |
| Fax:            | 010-60606666-1101   |

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

### 4.1 About EUT

|                                     |  |
|-------------------------------------|--|
| Description:                        | Mobile Phone   |
| Model name:                         | 24116RACCG   |
| Operating mode(s):                  | GSM 850/900/1800/1900<br>WCDMA B1/B2/B4/B5/B8<br>LTE Band 1/2/3/4/5/7/8/12/13/17/20/26/28/38/40/41/66<br>BT, Wi-Fi 2.4G/5G |
| Tested Tx Frequency:                | 824 – 849 MHz (GSM 850)  |
|                                     | 1850 – 1910 MHz (GSM 1900)   |
|                                     | 824 – 849 MHz (WCDMA 850 Band V)   |
|                                     | 1850 – 1910 MHz (WCDMA1900 Band II)  |
|                                     | 1710-1755 MHz (WCDMA1700 Band IV)  |
|                                     | 1850 – 1910 MHz(LTE Band 2)  |
|                                     | 2500 – 2570 MHz (LTE Band 7)   |
|                                     | 699 – 716 MHz (LTE Band 12)  |
|                                     | 777 – 787 MHz (LTE Band 13)  |
|                                     | 814 – 849 MHz (LTE Band 26)  |
|                                     | 2496 – 2690 MHz (LTE Band41)   |
|                                     | 1710 –1780 MHz (LTE Band 66)   |
|                                     | 2412 – 2462 MHz (Wi-Fi 2.4G)   |
|                                     | 2400 – 2483.5 MHz (Bluetooth)  |
|                                     | 5180 – 5240 MHz (Wi-Fi 5.2G)   |
| 5260 – 5320 MHz (Wi-Fi 5.3G)        |  |
| 5500 – 5700 MHz (Wi-Fi 5.5G)        |  |
| 5745 – 5825 MHz (Wi-Fi 5.8G)        |  |
| GPRS/EGPRS Multislot Class:         | 12   |
| Test device production information: | Production unit  |
| Device type:                        | Portable device  |
| Antenna type:                       | Integrated antenna   |
| Hotspot mode:                       | Support  |

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

| EUT ID* | IMEI                            | HW Version | SW Version         |
|---------|---------------------------------|------------|--------------------|
| EUT1    | 865991070104561/865991070104579 | 1351000O6  | Xiaomi HyperOS 1.0 |
| EUT2    | 865991070072701/865991070072719 | 1351000O6  | Xiaomi HyperOS 1.0 |
| EUT3    | 865991070075944/865991070075951 | 1351000O6  | Xiaomi HyperOS 1.0 |
| EUT4    | 865991070075886/865991070075894 | 1351000O6  | Xiaomi HyperOS 1.0 |
| EUT5    | 865991070075480/865991070075498 | 1351000O6  | Xiaomi HyperOS 1.0 |

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

**Note:** It is performed to test SAR with the EUT1~3 and conducted power with the EUT4~5.

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

| AE ID* | Description | Model | SN | Manufacturer |
|--------|-------------|-------|----|--------------|
| AE1    | Battery     | BN5Y  | /  | COS          |
| AE2    | Battery     | BN5Y  | /  | NVT          |

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

## 5 TEST METHODOLOGY

### 5.1 Applicable Limit Regulations

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

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

### 5.2 Applicable Measurement Standards

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

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

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

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

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

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

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

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

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

## 6 Specific Absorption Rate (SAR)

### 6.1 Introduction

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

### 6.2 SAR Definition

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

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

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

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

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

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

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

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

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

## 7 Tissue Simulating Liquids

### 7.1 Targets for tissue simulating liquid

Table 7.1: Targets for tissue simulating liquid

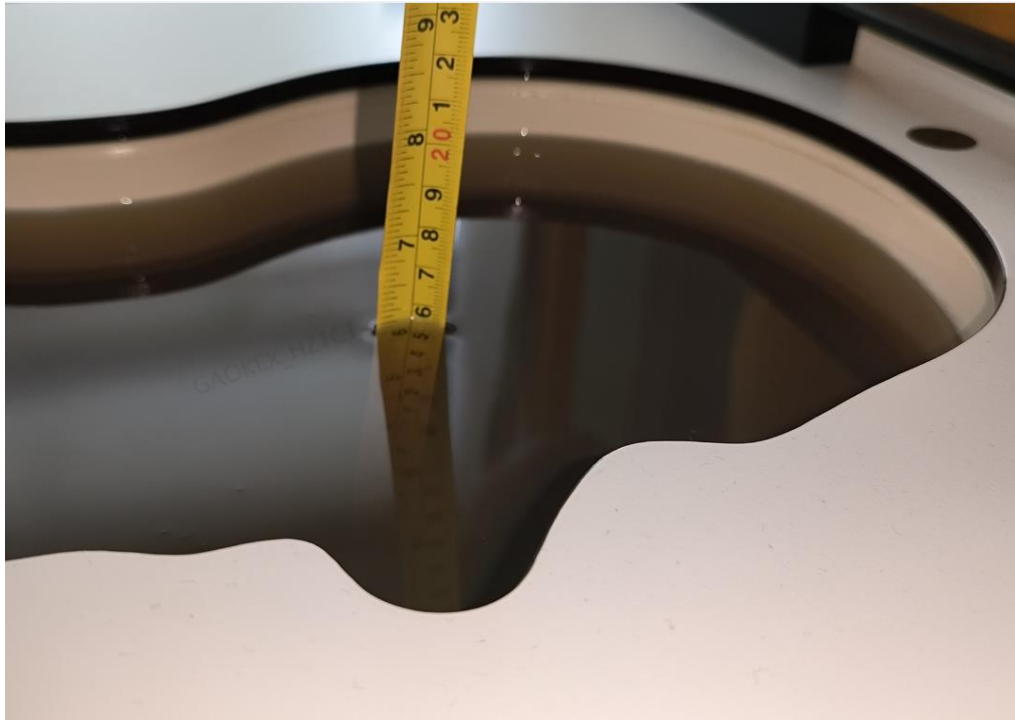
| Frequency(MHz) | Liquid Type | Conductivity( $\sigma$ ) | $\pm 5\%$ Range | Permittivity( $\epsilon$ ) | $\pm 5\%$ Range |
|----------------|-------------|--------------------------|-----------------|----------------------------|-----------------|
| 750            | Head        | 0.89                     | 0.85~0.93       | 41.94                      | 39.8~44.0       |
| 900            | Head        | 0.97                     | 0.92~1.02       | 41.50                      | 39.40~43.60     |
| 1800           | Head        | 1.40                     | 1.33~1.47       | 40.00                      | 38.00~42.00     |
| 1900           | Head        | 1.40                     | 1.33~1.47       | 40.00                      | 38.00~42.00     |
| 2450           | Head        | 1.80                     | 1.71~1.89       | 39.20                      | 37.30~41.10     |
| 2600           | Head        | 1.96                     | 1.86~2.06       | 39.01                      | 37.06~40.96     |
| 5250           | Head        | 4.71                     | 4.47~4.95       | 35.93                      | 34.13~37.73     |
| 5600           | Head        | 5.07                     | 4.82~5.32       | 35.53                      | 33.8~37.3       |
| 5750           | Head        | 5.22                     | 4.96~5.48       | 35.36                      | 33.59~37.13     |

### 7.2 Dielectric Performance

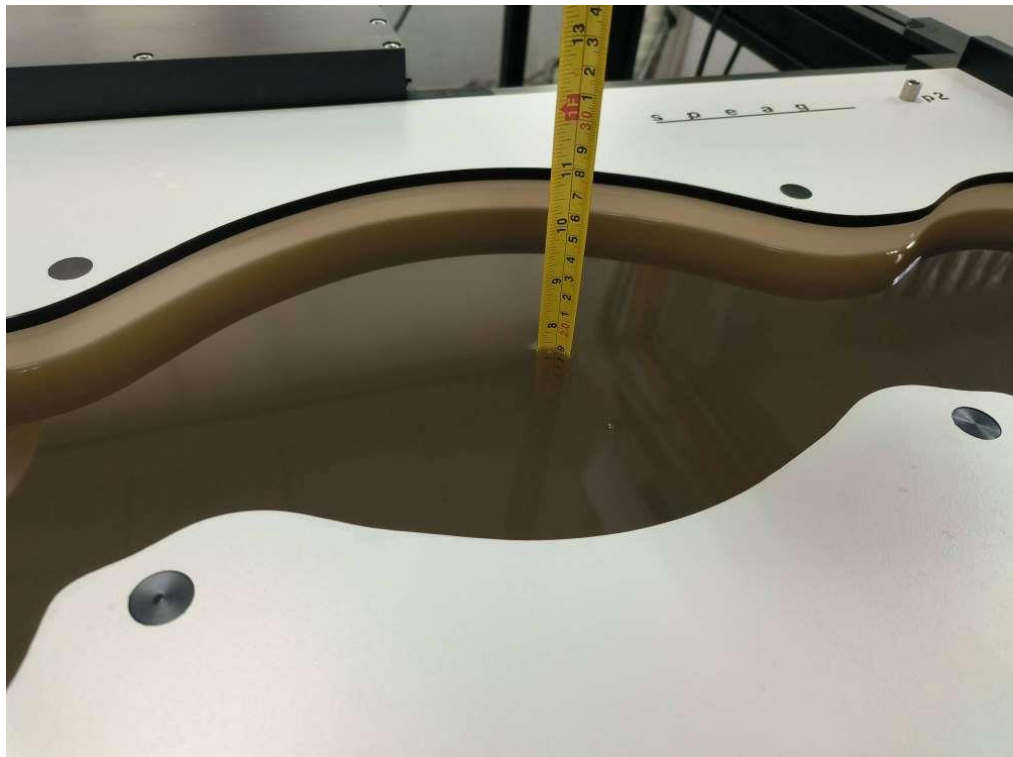
Table 7.2: Dielectric Performance of Tissue Simulating Liquid

| Measurement Date<br>yyyy/mm/dd | Frequency | Type | Permittivity<br>$\epsilon$ | Drift  | Conductivity<br>$\sigma$ (S/m) | Drift  |
|--------------------------------|-----------|------|----------------------------|--------|--------------------------------|--------|
| 2024-9-14                      | 750MHz    | Head | 41.21                      | -1.74% | 0.868                          | -2.47% |
| 2024-9-15                      | 750MHz    | Head | 41.35                      | -1.41% | 0.871                          | -2.13% |
| 2024-9-7                       | 835MHz    | Head | 41.27                      | -0.55% | 0.923                          | 2.56%  |
| 2024-9-8                       | 835MHz    | Head | 41.13                      | -0.89% | 0.91                           | 1.11%  |
| 2024-9-9                       | 1800MHz   | Head | 40.17                      | 0.43%  | 1.412                          | 0.86%  |
| 2024-9-10                      | 1800MHz   | Head | 40.35                      | 0.88%  | 1.384                          | -1.14% |
| 2024-9-12                      | 1900MHz   | Head | 39.1                       | -2.25% | 1.352                          | -3.43% |
| 2024-9-13                      | 1900MHz   | Head | 39.26                      | -1.85% | 1.374                          | -1.86% |
| 2024-9-19                      | 2450MHz   | Head | 39.54                      | 0.87%  | 1.78                           | -1.11% |
| 2024-9-16                      | 2600MHz   | Head | 39.6                       | 1.51%  | 1.985                          | 1.28%  |
| 2024-9-18                      | 2600MHz   | Head | 39.51                      | 1.28%  | 2.01                           | 2.55%  |
| 2024-9-20                      | 5250 MHz  | Head | 36.74                      | 2.25%  | 4.635                          | -1.59% |
| 2024-9-20                      | 5600 MHz  | Head | 36.53                      | 2.81%  | 4.95                           | -2.37% |
| 2024-9-21                      | 5750 MHz  | Head | 36.18                      | 2.32%  | 5.186                          | -0.65% |

Note: The liquid temperature is 22.0°C



Picture 7.1: Liquid depth in the Head Phantom

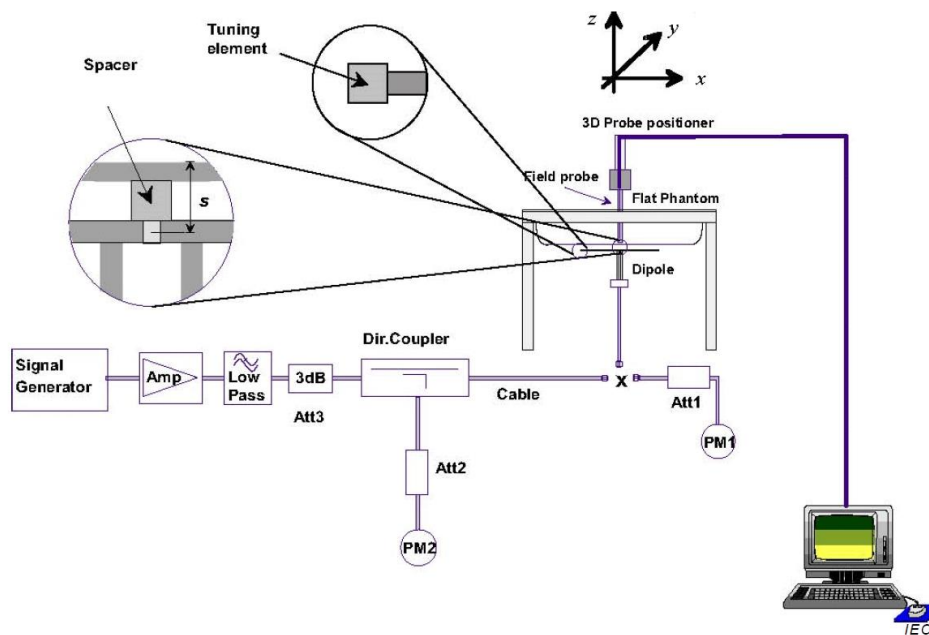


Picture 7.2 Liquid depth in the Flat Phantom

## 8 System verification

### 8.1 System Setup

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



Picture 8.1 System Setup for System Evaluation



Picture 8.2 Photo of Dipole Setup



## 8.2 System Verification

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

The system verification results are required that the area scan estimated 1-g SAR is within 3% of the zoom scan 1-g SAR. The details are presented in annex B.

**Table 8.1: System Verification of Head**

| Measurement Date<br>(yyyy-mm-dd) | Frequency | Target value<br>(W/kg) |                | Measured value<br>(W/kg) |                | Deviation       |                |
|----------------------------------|-----------|------------------------|----------------|--------------------------|----------------|-----------------|----------------|
|                                  |           | 10 g<br>Average        | 1 g<br>Average | 10 g<br>Average          | 1 g<br>Average | 10 g<br>Average | 1 g<br>Average |
| 2024-9-14                        | 750MHz    | 5.53                   | 8.52           | 5.36                     | 8.24           | -3.07%          | -3.29%         |
| 2024-9-15                        | 750MHz    | 5.53                   | 8.52           | 5.48                     | 8.44           | -0.90%          | -0.94%         |
| 2024-9-7                         | 900MHz    | 6.09                   | 9.47           | 6.2                      | 9.64           | 1.81%           | 1.80%          |
| 2024-9-8                         | 900MHz    | 6.09                   | 9.47           | 6                        | 9.36           | -1.48%          | -1.16%         |
| 2024-9-9                         | 1800MHz   | 20.6                   | 39.1           | 20.08                    | 38.12          | -2.52%          | -2.51%         |
| 2024-9-10                        | 1800MHz   | 20.6                   | 39.1           | 19.84                    | 37.76          | -3.69%          | -3.43%         |
| 2024-9-12                        | 1900MHz   | 20.6                   | 39.1           | 20.36                    | 38.64          | -1.17%          | -1.18%         |
| 2024-9-13                        | 1900MHz   | 20.6                   | 39.1           | 20.48                    | 38.84          | -0.58%          | -0.66%         |
| 2024-9-19                        | 2450MHz   | 24.5                   | 52.2           | 25.16                    | 53.64          | 2.69%           | 2.76%          |
| 2024-9-16                        | 2600MHz   | 24.8                   | 54.9           | 24.64                    | 54.48          | -0.65%          | -0.77%         |
| 2024-9-18                        | 2600MHz   | 24.8                   | 54.9           | 24.88                    | 55.04          | 0.32%           | 0.26%          |
| 2024-9-20                        | 5250 MHz  | 22.4                   | 78.3           | 22.3                     | 77.8           | -0.45%          | -0.64%         |
| 2024-9-20                        | 5600 MHz  | 23.2                   | 81.7           | 23.6                     | 83.1           | 1.72%           | 1.71%          |
| 2024-9-21                        | 5750 MHz  | 22.8                   | 79.9           | 23.3                     | 81.8           | 2.19%           | 2.38%          |

## 9 Measurement Procedures

### 9.1 Tests to be performed

In order to determine the highest value of the peak spatial-average SAR of a handset, all device positions, configurations and operational modes shall be tested for each frequency band according to steps 1 to 3 below. A flowchart of the test process is shown in picture 9.1.

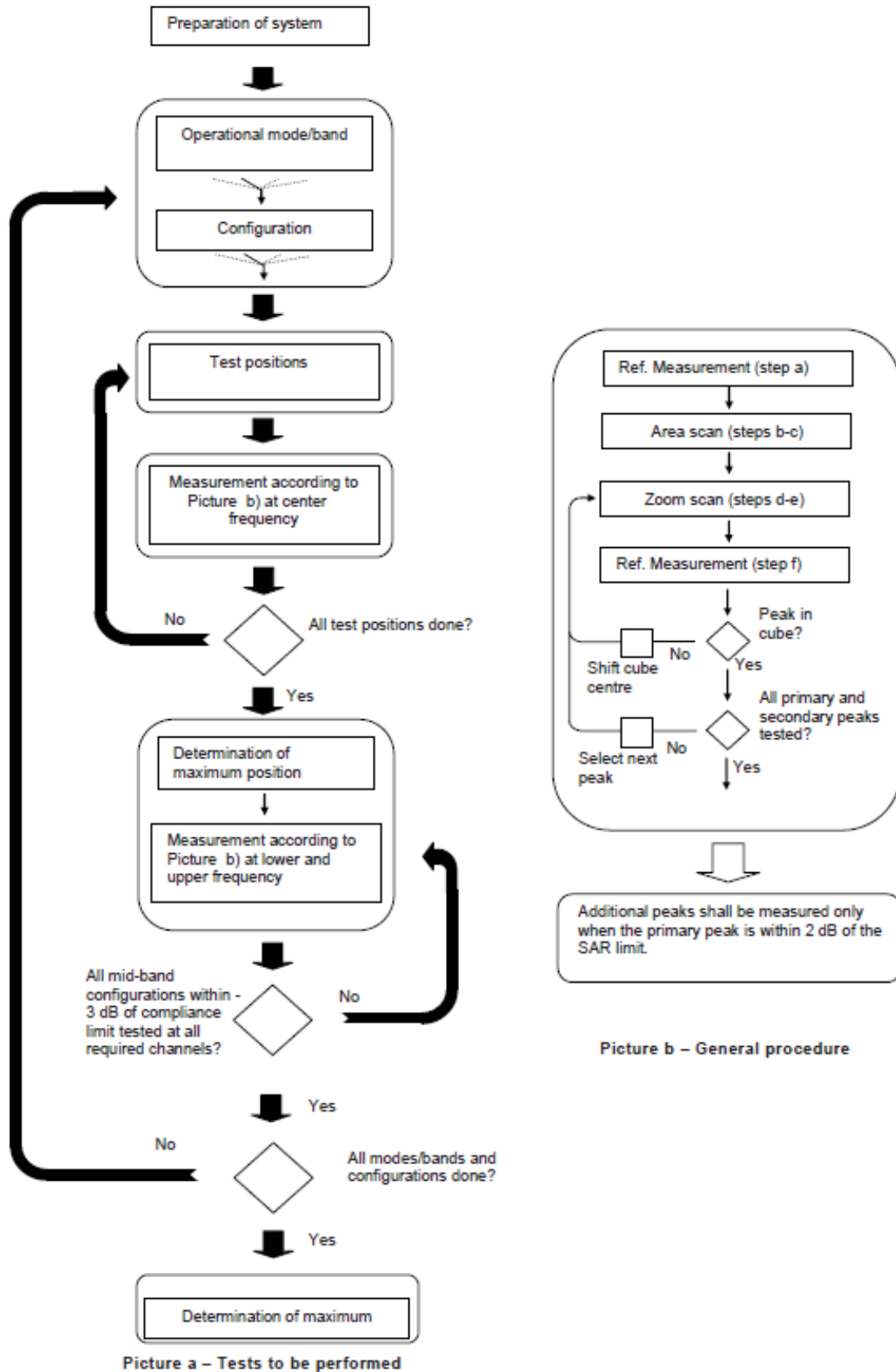
**Step 1:** The tests described in 9.2 shall be performed at the channel that is closest to the centre of the transmit frequency band ( $f_c$ ) for:

- a) all device positions (cheek and tilt, for both left and right sides of the SAM phantom, as described in annex D),
- b) all configurations for each device position in a), e.g., antenna extended and retracted, and
- c) all operational modes, e.g., analogue and digital, for each device position in a) and configuration in b) in each frequency band.

If more than three frequencies need to be tested according to 11.1 (i.e.,  $N_c > 3$ ), then all frequencies, configurations and modes shall be tested for all of the above test conditions.

**Step 2:** For the condition providing highest peak spatial-average SAR determined in Step 1, perform all tests described in 9.2 at all other test frequencies, i.e., lowest and highest frequencies. In addition, for all other conditions (device position, configuration and operational mode) where the peak spatial-average SAR value determined in Step 1 is within 3 dB of the applicable SAR limit, it is recommended that all other test frequencies shall be tested as well.

**Step 3:** Examine all data to determine the highest value of the peak spatial-average SAR found in Steps 1 to 2.



Picture 9.1 Block diagram of the tests to be performed

## 9.2 General Measurement Procedure

The area and zoom scan resolutions specified in the table below must be applied to the SAR measurements and fully documented in SAR reports to qualify for TCB approval. Probe boundary effect error compensation is required for measurements with the probe tip closer than half a probe tip diameter to the phantom surface. Both the probe tip diameter and sensor offset distance must satisfy measurement protocols; to ensure probe boundary effect errors are minimized and the higher fields closest to the phantom surface can be correctly measured and extrapolated to the phantom surface for computing 1-g SAR. Tolerances of the post-processing algorithms must be verified by the test laboratory for the scan resolutions used in the SAR measurements, according to the reference distribution functions specified in IEEE Std 1528-2003. The results should be documented as part of the system validation records and may be requested to support test results when all the measurement parameters in the following table are not satisfied.

|   |                                    | $\leq 3$ 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. |   |
| Maximum zoom scan spatial resolution: $\Delta x_{Zoom}$ , $\Delta y_{Zoom}$   |                                    | $\leq 2$ 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: $\Delta z_{Zoom}(n)$ | $\leq 5$ mm  | 3 – 4 GHz: $\leq 4$ mm<br>4 – 5 GHz: $\leq 3$ mm<br>5 – 6 GHz: $\leq 2$ mm    |
|   | graded grid                        | $\Delta z_{Zoom}(1)$ : between 1 <sup>st</sup> two points closest to phantom surface   | $\leq 4$ mm   |
|   |                                    | $\Delta z_{Zoom}(n>1)$ : between subsequent points   | $\leq 1.5 \cdot \Delta z_{Zoom}(n-1)$   |
| 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.<br>* When zoom scan is required and the <i>reported</i> SAR from the area scan based 1-g SAR estimation 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. |                                    |  |   |

### 9.3 WCDMA Measurement Procedures for SAR

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

#### For Release 5 HSDPA Data Devices:

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

#### For Release 6 HSPA Data Devices

| Sub-test | $\beta_c$ | $\beta_d$ | $\beta_d$ (SF) | $\beta_c / \beta_d$ | $\beta_{hs}$ | $\beta_{ec}$ | $\beta_{ed}$                               | $\beta_{ed}$ (SF) | $\beta_{ed}$ (codes) | CM (dB) | MPR (dB) | AG Index | E-TFCI |
|----------|-----------|-----------|----------------|---------------------|--------------|--------------|--|-------------------|----------------------|---------|----------|----------|--------|
| 1        | 11/15     | 15/15     | 64             | 11/15               | 22/15        | 209/225      | 1039/225                                   | 4                 | 1                    | 1.5     | 1.5      | 20       | 75     |
| 2        | 6/15      | 15/15     | 64             | 6/15                | 12/15        | 12/15        | 12/15                                      | 4                 | 1                    | 1.5     | 1.5      | 12       | 67     |
| 3        | 15/15     | 9/15      | 64             | 15/9                | 30/15        | 30/15        | $\beta_{ed1}:47/15$<br>$\beta_{ed2}:47/15$ | 4                 | 2                    | 1.5     | 1.5      | 15       | 92     |
| 4        | 2/15      | 15/15     | 64             | 2/15                | 4/15         | 4/15         | 56/75                                      | 4                 | 1                    | 1.5     | 1.5      | 17       | 71     |
| 5        | 15/15     | 15/15     | 64             | 15/15               | 24/15        | 30/15        | 134/15                                     | 4                 | 1                    | 1.5     | 1.5      | 21       | 81     |

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

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

## 9.4 SAR Measurement for LTE

SAR tests for LTE are performed with a base station simulator, Rohde & Schwarz CMW500. Closed loop power control was used so the UE transmits with maximum output power during SAR testing. All powers were measured with the CMW 500.

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

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

### 1) QPSK with 1 RB allocation

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

### 2) QPSK with 50% RB allocation

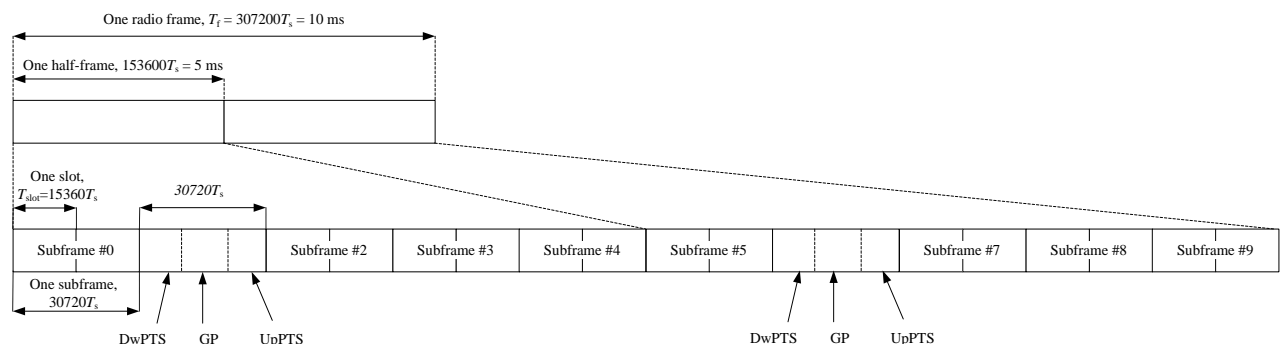
The procedures required for 1 RB allocation in 1) are applied to measure the SAR for QPSK with 50% RB allocation.

### 3) QPSK with 100% RB allocation

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

## TDD test:

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



**Figure 9.2: Frame structure type 2 (for 5 ms switch-point periodicity)**

**Table 9.1: Configuration of special subframe (lengths of DwPTS/GP/UpPTS)**

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

**Table 9.2: Uplink-downlink configurations**

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

Duty factor is calculated by:

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

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

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

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

## 9.6 Power Drift

To control the output power stability during the SAR test, DASY5 system calculates the power drift by measuring the E-field at the same location at the beginning and at the end of the measurement for each test position. These drift values can be found in section 14 labeled as: (Power Drift [dB]). This ensures that the power drift during one measurement is within 5%.



## 10 Area Scan Based 1-g SAR

### 10.1 Requirement of KDB

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

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

### 10.2 Fast SAR Algorithms

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

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

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

Both algorithms are implemented in DASY software.

## 11 Conducted Output Power

**Table 11: Summary of Receiver detection mechanism-Main antenna**

| Antenna      | Receiver on<br>(head scenario) | Receiver off+<br>Sensor on<br>(body scenario) | Receiver off+<br>Sensor off<br>(body/other scenario) | Receiver off+<br>Hotspot on<br>(hotspot scenario) |
|--------------|--------------------------------|---|--|---|
| Main Antenna | DSI1                           | DSI3  | DSI4   | DSI5  |

### 11.1 GSM Measurement result

**Table 11.1-1: The conducted power measurement results–GSM850 ANT1 (DSI1/3/4/5)**

| GSM 850<br>Speech (GMSK)   | Measured timeslot-averaged<br>output power (dBm) |       |       | Tune up | calculation | Source-based time-averaged<br>output power (dBm) |       |       |
|----------------------------|--|-------|-------|---------|-------------|--|-------|-------|
|                            | 251  | 190   | 128   |         |             | 251  | 190   | 128   |
| 1 Txslot                   | 32.52  | 32.51 | 32.45 | 33.50   | /           | /  | /     | /     |
| GSM 850<br>GPRS (GMSK)     | Measured timeslot-averaged<br>output power (dBm) |       |       |         | calculation | Source-based time-averaged<br>output power (dBm) |       |       |
|                            | 251  | 190   | 128   |         |             | 251  | 190   | 128   |
| 1 Txslot                   | 32.47  | 32.45 | 32.40 | 33.50   | -9.03       | 23.44  | 23.42 | 23.37 |
| <b>2 Txslots</b>           | 30.07  | 30.01 | 29.93 | 31.50   | -6.02       | 24.05  | 23.99 | 23.91 |
| 3 Txslots                  | 28.04  | 27.99 | 27.90 | 29.50   | -4.26       | 23.78  | 23.73 | 23.64 |
| 4 Txslots                  | 26.89  | 26.84 | 26.75 | 27.00   | -3.01       | 23.88  | 23.83 | 23.74 |
| GSM 850<br>EGPRS<br>(GMSK) | Measured timeslot-averaged<br>output power (dBm) |       |       |         | calculation | Source-based time-averaged<br>output power (dBm) |       |       |
|                            | 251  | 190   | 128   |         |             | 251  | 190   | 128   |
| 1 Txslot                   | 32.50  | 32.47 | 32.41 | 33.50   | -9.03       | 23.47  | 23.44 | 23.38 |
| <b>2 Txslots</b>           | 30.05  | 30.00 | 29.94 | 31.50   | -6.02       | 24.03  | 23.98 | 23.92 |
| 3 Txslots                  | 28.06  | 28.00 | 27.91 | 29.50   | -4.26       | 23.80  | 23.74 | 23.65 |
| 4 Txslots                  | 26.91  | 26.86 | 26.76 | 27.00   | -3.01       | 23.90  | 23.85 | 23.75 |
| GSM 850<br>EGPRS (8PSK)    | Measured timeslot-averaged<br>output power (dBm) |       |       |         | calculation | Source-based time-averaged<br>output power (dBm) |       |       |
|                            | 251  | 190   | 128   |         |             | 251  | 190   | 128   |
| 1 Txslot                   | 26.63  | 26.74 | 26.63 | 27.50   | -9.03       | 17.60  | 17.71 | 17.60 |
| 2 Txslots                  | 23.59  | 23.92 | 23.58 | 24.50   | -6.02       | 17.57  | 17.90 | 17.56 |
| 3Txslots                   | 22.38  | 21.49 | 22.25 | 22.70   | -4.26       | 18.12  | 17.23 | 17.99 |
| 4 Txslots                  | 20.04  | 20.09 | 19.95 | 21.50   | -3.01       | 17.03  | 17.08 | 16.94 |

NOTES:

1) Division Factors

To average the power, the division factor is as follows:

1TX-slot = 1 transmit time slot out of 8 time slots=> conducted power divided by (8/1) => -9.03dB

2TX-slots = 2 transmit time slots out of 8 time slots=> conducted power divided by (8/2) => -6.02dB

3TX-slots = 3 transmit time slots out of 8 time slots=> conducted power divided by (8/3) => -4.26dB

4TX-slots = 4 transmit time slots out of 8 time slots=> conducted power divided by (8/4) => -3.01dB

**Table 11.1-2: The conducted power measurement results-GSM1900 ANT1 (DS11/3/4)**

| PCS1900<br>Speech (GMSK) | Measured timeslot-averaged<br>output power (dBm) |       |       | Tune up | calculation | Source-based time-averaged<br>output power (dBm) |       |       |
|--------------------------|--|-------|-------|---------|-------------|--|-------|-------|
|                          | 810  | 661   | 512   |         |             | 810  | 661   | 512   |
| 1 Txslot                 | 29.43  | 29.33 | 29.23 | 30.50   | /           | /  | /     | /     |
| PCS1900<br>GPRS (GMSK)   | Measured timeslot-averaged<br>output power (dBm) |       |       |         | calculation | Source-based time-averaged<br>output power (dBm) |       |       |
|                          | 810  | 661   | 512   |         |             | 810  | 661   | 512   |
| 1 Txslot                 | 29.38  | 29.27 | 29.16 | 30.50   | -9.03       | 20.35  | 20.24 | 20.13 |
| <b>2 Txslots</b>         | 27.20  | 27.15 | 27.10 | 28.50   | -6.02       | 21.18  | 21.13 | 21.08 |
| 3 Txslots                | 25.10  | 24.89 | 24.66 | 26.50   | -4.26       | 20.84  | 20.63 | 20.40 |
| 4 Txslots                | 23.97  | 23.81 | 23.55 | 24.50   | -3.01       | 20.96  | 20.80 | 20.54 |
| PCS1900<br>EGPRS (GMSK)  | Measured timeslot-averaged<br>output power (dBm) |       |       |         | calculation | Source-based time-averaged<br>output power (dBm) |       |       |
|                          | 810  | 661   | 512   |         |             | 810  | 661   | 512   |
| 1 Txslot                 | 29.21  | 29.27 | 29.17 | 30.50   | -9.03       | 20.18  | 20.24 | 20.14 |
| <b>2 Txslots</b>         | 27.18  | 27.15 | 27.11 | 28.50   | -6.02       | 21.16  | 21.13 | 21.09 |
| 3 Txslots                | 25.09  | 24.89 | 24.66 | 26.50   | -4.26       | 20.83  | 20.63 | 20.40 |
| 4 Txslots                | 24.08  | 23.83 | 23.56 | 24.50   | -3.01       | 21.07  | 20.82 | 20.55 |
| PCS1900<br>EGPRS (8PSK)  | Measured timeslot-averaged<br>output power (dBm) |       |       |         | calculation | Source-based time-averaged<br>output power (dBm) |       |       |
|                          | 810  | 661   | 512   |         |             | 810  | 661   | 512   |
| 1 Txslot                 | 26.00  | 26.14 | 25.78 | 27.00   | -9.03       | 16.97  | 17.11 | 16.75 |
| 2 Txslots                | 23.66  | 23.01 | 23.38 | 24.00   | -6.02       | 17.64  | 16.99 | 17.36 |
| 3Txslots                 | 20.85  | 20.75 | 20.57 | 22.20   | -4.26       | 16.59  | 16.49 | 16.31 |
| 4 Txslots                | 19.25  | 19.53 | 19.04 | 21.00   | -3.01       | 16.24  | 16.52 | 16.03 |

**NOTES:**

## 1) Division Factors

To average the power, the division factor is as follows:

1TX-slot = 1 transmit time slot out of 8 time slots=&gt; conducted power divided by (8/1) =&gt; -9.03dB

2TX-slots = 2 transmit time slots out of 8 time slots=&gt; conducted power divided by (8/2) =&gt; -6.02dB

3TX-slots = 3 transmit time slots out of 8 time slots=&gt; conducted power divided by (8/3) =&gt; -4.26dB

4TX-slots = 4 transmit time slots out of 8 time slots=&gt; conducted power divided by (8/4) =&gt; -3.01dB

**Table 11.1-3: The conducted power measurement results-GSM1900 ANT1 (DSI5)**

| PCS1900<br>Speech (GMSK) | Measured timeslot-averaged<br>output power (dBm) |       |       | Tune up | calculation | Source-based time-averaged<br>output power (dBm) |       |       |
|--------------------------|--|-------|-------|---------|-------------|--|-------|-------|
|                          | 810  | 661   | 512   |         |             | 810  | 661   | 512   |
| 1 Txslot                 | 29.43  | 29.33 | 29.23 | 30.50   | /           | /  | /     | /     |
| PCS1900<br>GPRS (GMSK)   | Measured timeslot-averaged<br>output power (dBm) |       |       |         | calculation | Source-based time-averaged<br>output power (dBm) |       |       |
|                          | 810  | 661   | 512   |         |             | 810  | 661   | 512   |
| 1 Txslot                 | 29.38  | 29.27 | 29.16 | 30.50   | -9.03       | 20.35  | 20.24 | 20.13 |
| <b>2 Txslots</b>         | 27.20  | 27.15 | 27.10 | 28.50   | -6.02       | 21.18  | 21.13 | 21.08 |
| 3 Txslots                | 25.10  | 24.89 | 24.66 | 26.50   | -4.26       | 20.84  | 20.63 | 20.40 |
| 4 Txslots                | 23.97  | 23.81 | 23.55 | 24.50   | -3.01       | 20.96  | 20.80 | 20.54 |
| PCS1900<br>EGPRS (GMSK)  | Measured timeslot-averaged<br>output power (dBm) |       |       |         | calculation | Source-based time-averaged<br>output power (dBm) |       |       |
|                          | 810  | 661   | 512   |         |             | 810  | 661   | 512   |
| 1 Txslot                 | 29.21  | 29.27 | 29.17 | 30.50   | -9.03       | 20.18  | 20.24 | 20.14 |
| <b>2 Txslots</b>         | 27.18  | 27.15 | 27.11 | 28.50   | -6.02       | 21.16  | 21.13 | 21.09 |
| 3 Txslots                | 25.09  | 24.89 | 24.66 | 26.50   | -4.26       | 20.83  | 20.63 | 20.40 |
| 4 Txslots                | 24.08  | 23.83 | 23.56 | 24.50   | -3.01       | 21.07  | 20.82 | 20.55 |
| PCS1900<br>EGPRS (8PSK)  | Measured timeslot-averaged<br>output power (dBm) |       |       |         | calculation | Source-based time-averaged<br>output power (dBm) |       |       |
|                          | 810  | 661   | 512   |         |             | 810  | 661   | 512   |
| 1 Txslot                 | 26.00  | 26.14 | 25.78 | 27.00   | -9.03       | 16.97  | 17.11 | 16.75 |
| 2 Txslots                | 23.66  | 23.01 | 23.38 | 24.00   | -6.02       | 17.64  | 16.99 | 17.36 |
| 3Txslots                 | 20.85  | 20.75 | 20.57 | 22.20   | -4.26       | 16.59  | 16.49 | 16.31 |
| 4 Txslots                | 19.25  | 19.53 | 19.04 | 21.00   | -3.01       | 16.24  | 16.52 | 16.03 |

**NOTES:**

## 1) Division Factors

To average the power, the division factor is as follows:

1TX-slot = 1 transmit time slot out of 8 time slots=&gt; conducted power divided by (8/1) =&gt; -9.03dB

2TX-slots = 2 transmit time slots out of 8 time slots=&gt; conducted power divided by (8/2) =&gt; -6.02dB

3TX-slots = 3 transmit time slots out of 8 time slots=&gt; conducted power divided by (8/3) =&gt; -4.26dB

4TX-slots = 4 transmit time slots out of 8 time slots=&gt; conducted power divided by (8/4) =&gt; -3.01dB

**Table 11.1-4: The conducted power measurement results–GSM850 ANT4 (DS11/3/4/5)**

| GSM 850<br>Speech (GMSK)   | Measured timeslot-averaged<br>output power (dBm) |       |       | Tune up | calculation | Source-based time-averaged<br>output power (dBm) |       |       |
|----------------------------|--|-------|-------|---------|-------------|--|-------|-------|
|                            | 251  | 190   | 128   |         |             | 251  | 190   | 128   |
| 1 Txslot                   | 32.23  | 32.33 | 32.40 | 33.50   | /           | /  | /     | /     |
| GSM 850<br>GPRS (GMSK)     | Measured timeslot-averaged<br>output power (dBm) |       |       |         | calculation | Source-based time-averaged<br>output power (dBm) |       |       |
|                            | 251  | 190   | 128   |         |             | 251  | 190   | 128   |
| 1 Txslot                   | 32.16  | 32.26 | 32.32 | 33.50   | -9.03       | 23.13  | 23.23 | 23.29 |
| <b>2 Txslots</b>           | 29.81  | 29.85 | 29.88 | 31.50   | -6.02       | 23.79  | 23.83 | 23.86 |
| 3 Txslots                  | 27.80  | 27.86 | 27.86 | 29.50   | -4.26       | 23.54  | 23.60 | 23.60 |
| 4 Txslots                  | 26.67  | 26.73 | 26.72 | 27.00   | -3.01       | 23.66  | 23.72 | 23.71 |
| GSM 850<br>EGPRS<br>(GMSK) | Measured timeslot-averaged<br>output power (dBm) |       |       |         | calculation | Source-based time-averaged<br>output power (dBm) |       |       |
|                            | 251  | 190   | 128   |         |             | 251  | 190   | 128   |
| 1 Txslot                   | 32.22  | 32.28 | 32.34 | 33.50   | -9.03       | 23.19  | 23.25 | 23.31 |
| <b>2 Txslots</b>           | 29.86  | 29.87 | 29.90 | 31.50   | -6.02       | 23.84  | 23.85 | 23.88 |
| 3 Txslots                  | 27.85  | 27.87 | 27.87 | 29.50   | -4.26       | 23.59  | 23.61 | 23.61 |
| 4 Txslots                  | 26.72  | 26.75 | 26.73 | 27.00   | -3.01       | 23.71  | 23.74 | 23.72 |
| GSM 850<br>EGPRS (8PSK)    | Measured timeslot-averaged<br>output power (dBm) |       |       |         | calculation | Source-based time-averaged<br>output power (dBm) |       |       |
|                            | 251  | 190   | 128   |         |             | 251  | 190   | 128   |
| 1 Txslot                   | 26.46  | 26.76 | 26.55 | 27.50   | -9.03       | 17.43  | 17.73 | 17.52 |
| 2 Txslots                  | 23.81  | 23.93 | 23.66 | 24.50   | -6.02       | 17.79  | 17.91 | 17.64 |
| 3Txslots                   | 21.58  | 21.69 | 21.42 | 22.70   | -4.26       | 17.32  | 17.43 | 17.16 |
| 4 Txslots                  | 20.20  | 20.33 | 20.04 | 21.50   | -3.01       | 17.19  | 17.32 | 17.03 |

**NOTES:**

## 1) Division Factors

To average the power, the division factor is as follows:

1TX-slot = 1 transmit time slot out of 8 time slots=> conducted power divided by (8/1) => -9.03dB

2TX-slots = 2 transmit time slots out of 8 time slots=> conducted power divided by (8/2) => -6.02dB

3TX-slots = 3 transmit time slots out of 8 time slots=> conducted power divided by (8/3) => -4.26dB

4TX-slots = 4 transmit time slots out of 8 time slots=> conducted power divided by (8/4) => -3.01dB

**Table 11.1-5: The conducted power measurement results-GSM1900 ANT4 (DS1)**

| PCS1900<br>Speech (GMSK) | Measured timeslot-averaged<br>output power (dBm) |       |       | Tune up | calculation | Source-based time-averaged<br>output power (dBm) |       |       |
|--------------------------|--|-------|-------|---------|-------------|--|-------|-------|
|                          | 810  | 661   | 512   |         |             | 810  | 661   | 512   |
| 1 Txslot                 | 25.96  | 25.90 | 25.73 | 25.96   | /           | /  | /     | /     |
| PCS1900<br>GPRS (GMSK)   | Measured timeslot-averaged<br>output power (dBm) |       |       |         | calculation | Source-based time-averaged<br>output power (dBm) |       |       |
|                          | 810  | 661   | 512   |         |             | 810  | 661   | 512   |
| 1 Txslot                 | 25.88  | 25.84 | 25.68 | 26.50   | -9.03       | 16.85  | 16.81 | 16.65 |
| <b>2 Txslots</b>         | 23.11  | 22.95 | 22.72 | 24.50   | -6.02       | 17.09  | 16.93 | 16.70 |
| 3 Txslots                | 21.15  | 21.01 | 20.75 | 22.50   | -4.26       | 16.89  | 16.75 | 16.49 |
| 4 Txslots                | 20.02  | 19.91 | 19.68 | 20.50   | -3.01       | 17.01  | 16.90 | 16.67 |
| PCS1900<br>EGPRS (GMSK)  | Measured timeslot-averaged<br>output power (dBm) |       |       |         | calculation | Source-based time-averaged<br>output power (dBm) |       |       |
|                          | 810  | 661   | 512   |         |             | 810  | 661   | 512   |
| 1 Txslot                 | 25.89  | 25.86 | 25.69 | 26.50   | -9.03       | 16.86  | 16.83 | 16.66 |
| <b>2 Txslots</b>         | 23.10  | 22.97 | 22.74 | 24.50   | -6.02       | 17.08  | 16.95 | 16.72 |
| 3 Txslots                | 21.16  | 21.02 | 20.77 | 22.50   | -4.26       | 16.90  | 16.76 | 16.51 |
| 4 Txslots                | 20.04  | 19.92 | 19.70 | 20.50   | -3.01       | 17.03  | 16.91 | 16.69 |
| PCS1900<br>EGPRS (8PSK)  | Measured timeslot-averaged<br>output power (dBm) |       |       |         | calculation | Source-based time-averaged<br>output power (dBm) |       |       |
|                          | 810  | 661   | 512   |         |             | 810  | 661   | 512   |
| 1 Txslot                 | 21.89  | 21.90 | 22.20 | 23.00   | -9.03       | 12.86  | 12.87 | 13.17 |
| 2 Txslots                | 18.79  | 18.75 | 19.00 | 20.00   | -6.02       | 12.77  | 12.73 | 12.98 |
| 3Txslots                 | 16.29  | 16.47 | 16.59 | 18.20   | -4.26       | 12.03  | 12.21 | 12.33 |
| 4 Txslots                | 15.22  | 15.26 | 15.24 | 17.00   | -3.01       | 12.21  | 12.25 | 12.23 |

**NOTES:**

## 1) Division Factors

To average the power, the division factor is as follows:

1TX-slot = 1 transmit time slot out of 8 time slots=&gt; conducted power divided by (8/1) =&gt; -9.03dB

2TX-slots = 2 transmit time slots out of 8 time slots=&gt; conducted power divided by (8/2) =&gt; -6.02dB

3TX-slots = 3 transmit time slots out of 8 time slots=&gt; conducted power divided by (8/3) =&gt; -4.26dB

4TX-slots = 4 transmit time slots out of 8 time slots=&gt; conducted power divided by (8/4) =&gt; -3.01dB

**Table 11.1-6: The conducted power measurement results-GSM1900 ANT4 (DSI3/4)**

| PCS1900<br>Speech (GMSK) | Measured timeslot-averaged<br>output power (dBm) |       |       | Tune up | calculation | Source-based time-averaged<br>output power (dBm) |       |       |
|--------------------------|--|-------|-------|---------|-------------|--|-------|-------|
|                          | 810  | 661   | 512   |         |             | 810  | 661   | 512   |
| 1 Txslot                 | 29.62  | 29.51 | 29.13 | 30.50   | /           | /  | /     | /     |
| PCS1900<br>GPRS (GMSK)   | Measured timeslot-averaged<br>output power (dBm) |       |       |         | calculation | Source-based time-averaged<br>output power (dBm) |       |       |
|                          | 810  | 661   | 512   |         |             | 810  | 661   | 512   |
| 1 Txslot                 | 29.47  | 29.38 | 29.01 | 30.50   | -9.03       | 20.44  | 20.35 | 19.98 |
| <b>2 Txslots</b>         | 27.14  | 26.95 | 26.54 | 28.50   | -6.02       | 21.12  | 20.93 | 20.52 |
| 3 Txslots                | 25.23  | 25.00 | 24.52 | 26.50   | -4.26       | 20.97  | 20.74 | 20.26 |
| 4 Txslots                | 24.11  | 23.92 | 23.43 | 24.50   | -3.01       | 21.10  | 20.91 | 20.42 |
| PCS1900<br>EGPRS (GMSK)  | Measured timeslot-averaged<br>output power (dBm) |       |       |         | calculation | Source-based time-averaged<br>output power (dBm) |       |       |
|                          | 810  | 661   | 512   |         |             | 810  | 661   | 512   |
| 1 Txslot                 | 29.48  | 29.39 | 29.02 | 30.50   | -9.03       | 20.45  | 20.36 | 19.99 |
| <b>2 Txslots</b>         | 27.15  | 26.96 | 26.55 | 28.50   | -6.02       | 21.13  | 20.94 | 20.53 |
| 3 Txslots                | 25.25  | 25.00 | 24.53 | 26.50   | -4.26       | 20.99  | 20.74 | 20.27 |
| 4 Txslots                | 24.09  | 23.91 | 23.43 | 24.50   | -3.01       | 21.08  | 20.90 | 20.42 |
| PCS1900<br>EGPRS (8PSK)  | Measured timeslot-averaged<br>output power (dBm) |       |       |         | calculation | Source-based time-averaged<br>output power (dBm) |       |       |
|                          | 810  | 661   | 512   |         |             | 810  | 661   | 512   |
| 1 Txslot                 | 25.71  | 25.98 | 26.14 | 27.00   | -9.03       | 16.68  | 16.95 | 17.11 |
| 2 Txslots                | 22.92  | 23.23 | 23.38 | 24.00   | -6.02       | 16.90  | 17.21 | 17.36 |
| 3Txslots                 | 20.65  | 20.96 | 21.11 | 22.20   | -4.26       | 16.39  | 16.70 | 16.85 |
| 4 Txslots                | 19.05  | 19.43 | 19.60 | 21.00   | -3.01       | 16.04  | 16.42 | 16.59 |

**NOTES:**

## 1) Division Factors

To average the power, the division factor is as follows:

1TX-slot = 1 transmit time slot out of 8 time slots=&gt; conducted power divided by (8/1) =&gt; -9.03dB

2TX-slots = 2 transmit time slots out of 8 time slots=&gt; conducted power divided by (8/2) =&gt; -6.02dB

3TX-slots = 3 transmit time slots out of 8 time slots=&gt; conducted power divided by (8/3) =&gt; -4.26dB

4TX-slots = 4 transmit time slots out of 8 time slots=&gt; conducted power divided by (8/4) =&gt; -3.01dB

**Table 11.1-7: The conducted power measurement results-GSM1900 ANT4 (DSI5)**

| PCS1900<br>Speech (GMSK) | Measured timeslot-averaged<br>output power (dBm) |       |       | Tune up | calculation | Source-based time-averaged<br>output power (dBm) |       |       |
|--------------------------|--|-------|-------|---------|-------------|--|-------|-------|
|                          | 810  | 661   | 512   |         |             | 810  | 661   | 512   |
| 1 Txslot                 | 27.58  | 27.56 | 27.43 | 28.50   | /           | /  | /     | /     |
| PCS1900<br>GPRS (GMSK)   | Measured timeslot-averaged<br>output power (dBm) |       |       |         | calculation | Source-based time-averaged<br>output power (dBm) |       |       |
|                          | 810  | 661   | 512   |         |             | 810  | 661   | 512   |
| 1 Txslot                 | 27.50  | 27.47 | 27.35 | 28.50   | -9.03       | 18.47  | 18.44 | 18.32 |
| 2 Txslots                | 24.68  | 24.59 | 24.54 | 26.50   | -6.02       | 18.66  | 18.57 | 18.52 |
| 3 Txslots                | 22.77  | 22.64 | 22.42 | 24.50   | -4.26       | 18.51  | 18.38 | 18.16 |
| <b>4 Txslots</b>         | 21.72  | 21.60 | 21.66 | 22.50   | -3.01       | 18.71  | 18.59 | 18.65 |
| PCS1900<br>EGPRS (GMSK)  | Measured timeslot-averaged<br>output power (dBm) |       |       |         | calculation | Source-based time-averaged<br>output power (dBm) |       |       |
|                          | 810  | 661   | 512   |         |             | 810  | 661   | 512   |
| 1 Txslot                 | 27.50  | 27.47 | 27.34 | 28.50   | -9.03       | 18.47  | 18.44 | 18.31 |
| 2 Txslots                | 24.68  | 24.59 | 24.53 | 26.50   | -6.02       | 18.66  | 18.57 | 18.51 |
| 3 Txslots                | 22.77  | 22.65 | 22.41 | 24.50   | -4.26       | 18.51  | 18.39 | 18.15 |
| <b>4 Txslots</b>         | 21.73  | 21.61 | 21.56 | 22.50   | -3.01       | 18.72  | 18.60 | 18.55 |
| PCS1900<br>EGPRS (8PSK)  | Measured timeslot-averaged<br>output power (dBm) |       |       |         | calculation | Source-based time-averaged<br>output power (dBm) |       |       |
|                          | 810  | 661   | 512   |         |             | 810  | 661   | 512   |
| 1 Txslot                 | 23.87  | 24.75 | 24.13 | 25.00   | -9.03       | 14.84  | 15.72 | 15.10 |
| 2 Txslots                | 20.80  | 20.93 | 21.07 | 22.00   | -6.02       | 14.78  | 14.91 | 15.05 |
| 3Txslots                 | 18.55  | 18.48 | 18.80 | 20.20   | -4.26       | 14.29  | 14.22 | 14.54 |
| 4 Txslots                | 17.00  | 17.19 | 17.38 | 19.00   | -3.01       | 13.99  | 14.18 | 14.37 |

**NOTES:**

## 1) Division Factors

To average the power, the division factor is as follows:

1TX-slot = 1 transmit time slot out of 8 time slots=&gt; conducted power divided by (8/1) =&gt; -9.03dB

2TX-slots = 2 transmit time slots out of 8 time slots=&gt; conducted power divided by (8/2) =&gt; -6.02dB

3TX-slots = 3 transmit time slots out of 8 time slots=&gt; conducted power divided by (8/3) =&gt; -4.26dB

4TX-slots = 4 transmit time slots out of 8 time slots=&gt; conducted power divided by (8/4) =&gt; -3.01dB



## 11.2 WCDMA Measurement result

**Table 11.2-1: The conducted Power for WCDMA B2 ANT1 (DSI1)**

| WCDMA1900 | FDDII result (dBm) |           |             | Tune up |
|-----------|--------------------|-----------|-------------|---------|
|           | 9538/9938          | 9400/9800 | 9262/9662   |         |
|           | (1907.6MHz)        | (1880MHz) | (1852.4MHz) |         |
|           | 24.73              | 24.79     | 24.78       | 25.50   |
| HSUPA     | 23.30              | 23.32     | 23.22       | 24.00   |
|           | 23.10              | 23.15     | 23.19       | 24.00   |
|           | 22.72              | 22.77     | 22.71       | 23.50   |
|           | 22.78              | 22.76     | 22.82       | 23.50   |
|           | 21.36              | 21.28     | 21.28       | 22.00   |
| DC-HSDPA  | 21.28              | 21.22     | 21.18       | 22.00   |
|           | 22.23              | 22.15     | 22.17       | 22.50   |
|           | 20.81              | 20.77     | 20.76       | 21.50   |
|           | 22.31              | 22.29     | 22.33       | 23.00   |
| HSPA+     | 22.91              | 22.88     | 22.81       | 24.00   |

**Table 11.2-2: The conducted Power for WCDMA B2 ANT1 (DSI3)**

| WCDMA1900 | FDDII result (dBm) |           |             | Tune up |
|-----------|--------------------|-----------|-------------|---------|
|           | 9538/9938          | 9400/9800 | 9262/9662   |         |
|           | (1907.6MHz)        | (1880MHz) | (1852.4MHz) |         |
|           | 19.73              | 19.75     | 19.71       | 21.00   |
| HSUPA     | 18.91              | 18.83     | 18.82       | 19.50   |
|           | 18.58              | 18.64     | 18.70       | 19.50   |
|           | 18.20              | 18.28     | 18.38       | 19.00   |
|           | 18.30              | 18.27     | 18.19       | 19.00   |
|           | 16.75              | 16.81     | 16.71       | 17.50   |
| DC-HSDPA  | 16.80              | 16.73     | 16.77       | 17.50   |
|           | 17.69              | 17.62     | 17.65       | 18.00   |
|           | 16.38              | 16.36     | 16.46       | 17.00   |
|           | 17.69              | 17.74     | 17.71       | 18.50   |
| HSPA+     | 18.46              | 18.39     | 18.49       | 19.50   |

**Table 11.2-3: The conducted Power for WCDMA B2 ANT1 (DSI4)**

| WCDMA1900 | FDDII result (dBm) |           |             | Tune up |
|-----------|--------------------|-----------|-------------|---------|
|           | 9538/9938          | 9400/9800 | 9262/9662   |         |
|           | (1907.6MHz)        | (1880MHz) | (1852.4MHz) |         |
|           | 23.17              | 23.25     | 23.21       | 24.50   |
| HSUPA     | 22.34              | 22.34     | 22.25       | 23.00   |
|           | 22.08              | 22.17     | 22.25       | 23.00   |
|           | 21.70              | 21.76     | 21.68       | 22.50   |
|           | 21.76              | 21.75     | 21.65       | 22.50   |
|           | 20.27              | 20.34     | 20.35       | 21.00   |
| DC-HSDPA  | 20.26              | 20.23     | 20.15       | 21.00   |
|           | 21.19              | 21.26     | 21.23       | 21.50   |
|           | 19.74              | 19.78     | 19.82       | 20.50   |
|           | 21.24              | 21.34     | 21.43       | 22.00   |
| HSPA+     | 21.96              | 21.89     | 21.95       | 23.00   |

**Table 11.2-4: The conducted Power for WCDMA B2 ANT1 (DSI5)**

| WCDMA1900 | FDDII result (dBm) |           |             | Tune up |
|-----------|--------------------|-----------|-------------|---------|
|           | 9538/9938          | 9400/9800 | 9262/9662   |         |
|           | (1907.6MHz)        | (1880MHz) | (1852.4MHz) |         |
|           | 17.26              | 17.29     | 17.23       | 18.50   |
| HSUPA     | 16.25              | 16.34     | 16.30       | 17.00   |
|           | 16.16              | 16.12     | 16.14       | 17.00   |
|           | 15.75              | 15.78     | 15.75       | 16.50   |
|           | 15.74              | 15.75     | 15.68       | 16.50   |
|           | 14.38              | 14.29     | 14.32       | 15.00   |
| DC-HSDPA  | 14.14              | 14.24     | 14.25       | 15.00   |
|           | 15.28              | 15.18     | 15.23       | 15.50   |
|           | 13.80              | 13.82     | 13.87       | 14.50   |
|           | 15.17              | 15.25     | 15.25       | 16.00   |
| HSPA+     | 15.78              | 15.82     | 15.77       | 17.00   |

Table 11.2-5: The conducted Power for WCDMA B4 ANT1 (DS11)

| WCDMA1700 | FDDIV result (dBm) |             |             | Tune up |
|-----------|--------------------|-------------|-------------|---------|
|           | 1513/1738          | 1412/1637   | 1312/1537   |         |
|           | (1752.6MHz)        | (1732.4MHz) | (1712.4MHz) |         |
|           | 24.44              | 24.51       | 24.48       | 25.50   |
| HSUPA     | 23.25              | 23.25       | 23.30       | 24.50   |
|           | 23.07              | 23.07       | 22.97       | 24.50   |
|           | 22.70              | 22.68       | 22.64       | 24.00   |
|           | 22.74              | 22.67       | 22.71       | 24.00   |
|           | 21.27              | 21.25       | 21.22       | 22.50   |
| DC-HSDPA  | 21.13              | 21.12       | 21.21       | 22.50   |
|           | 22.06              | 22.07       | 22.08       | 23.00   |
|           | 20.76              | 20.72       | 20.80       | 22.00   |
|           | 22.22              | 22.15       | 22.24       | 23.50   |
| HSPA+     | 22.70              | 22.79       | 22.89       | 24.50   |

Table 11.2-6: The conducted Power for WCDMA B4 ANT1 (DS13)

| WCDMA1700 | FDDIV result (dBm) |             |             | Tune up |
|-----------|--------------------|-------------|-------------|---------|
|           | 1513/1738          | 1412/1637   | 1312/1537   |         |
|           | (1752.6MHz)        | (1732.4MHz) | (1712.4MHz) |         |
|           | 20.61              | 20.65       | 20.63       | 22.00   |
| HSUPA     | 19.65              | 19.72       | 19.78       | 21.00   |
|           | 19.50              | 19.59       | 19.65       | 21.00   |
|           | 19.13              | 19.16       | 19.24       | 20.50   |
|           | 19.11              | 19.18       | 19.13       | 20.50   |
|           | 17.76              | 17.74       | 17.82       | 19.00   |
| DC-HSDPA  | 17.65              | 17.66       | 17.63       | 19.00   |
|           | 18.62              | 18.71       | 18.67       | 19.50   |
|           | 17.18              | 17.22       | 17.22       | 18.50   |
|           | 18.81              | 18.76       | 18.74       | 20.00   |
| HSPA+     | 19.31              | 19.33       | 19.43       | 21.00   |

**Table 11.2-7: The conducted Power for WCDMA B4 ANT1 (DSI4)**

| WCDMA1700 | FDDIV result (dBm) |             |             | Tune up |
|-----------|--------------------|-------------|-------------|---------|
|           | 1513/1738          | 1412/1637   | 1312/1537   |         |
|           | (1752.6MHz)        | (1732.4MHz) | (1712.4MHz) |         |
|           | 22.21              | 22.28       | 22.26       | 23.50   |
| HSUPA     | 21.16              | 21.22       | 21.14       | 22.50   |
|           | 21.04              | 21.03       | 20.98       | 22.50   |
|           | 20.76              | 20.68       | 20.63       | 22.00   |
|           | 20.59              | 20.67       | 20.73       | 22.00   |
|           | 19.20              | 19.18       | 19.21       | 20.50   |
| DC-HSDPA  | 19.03              | 19.11       | 19.13       | 20.50   |
|           | 20.09              | 20.19       | 20.24       | 21.00   |
|           | 18.60              | 18.54       | 18.63       | 20.00   |
|           | 20.29              | 20.22       | 20.28       | 21.50   |
| HSPA+     | 20.66              | 20.65       | 20.59       | 22.50   |

**Table 11.2-8: The conducted Power for WCDMA B4 ANT1 (DSI5)**

| WCDMA1700 | FDDIV result (dBm) |             |             | Tune up |
|-----------|--------------------|-------------|-------------|---------|
|           | 1513/1738          | 1412/1637   | 1312/1537   |         |
|           | (1752.6MHz)        | (1732.4MHz) | (1712.4MHz) |         |
|           | 17.26              | 17.27       | 17.24       | 18.50   |
| HSUPA     | 16.31              | 16.25       | 16.35       | 17.50   |
|           | 16.14              | 16.09       | 16.05       | 17.50   |
|           | 15.67              | 15.68       | 15.73       | 17.00   |
|           | 15.63              | 15.66       | 15.61       | 17.00   |
|           | 14.37              | 14.31       | 14.24       | 15.50   |
| DC-HSDPA  | 14.14              | 14.21       | 14.23       | 15.50   |
|           | 15.12              | 15.17       | 15.26       | 16.00   |
|           | 13.78              | 13.75       | 13.67       | 15.00   |
|           | 15.22              | 15.24       | 15.27       | 16.50   |
| HSPA+     | 15.72              | 15.66       | 15.57       | 17.50   |

**Table 11.2-9: The conducted Power for WCDMA B5 ANT1 (DS15)**

| WCDMA850 | FDDV result (dBm) |            |            | Tune up |
|----------|-------------------|------------|------------|---------|
|          | 4233/4458         | 4183/4408  | 4132/4357  |         |
|          | (846.6MHz)        | (836.6MHz) | (826.4MHz) |         |
|          | 24.68             | 24.78      | 24.74      | 25.50   |
| HSUPA    | 23.61             | 23.50      | 23.49      | 24.50   |
|          | 23.60             | 23.47      | 23.46      | 24.50   |
|          | 23.15             | 23.06      | 22.99      | 24.00   |
|          | 23.13             | 23.02      | 23.01      | 24.00   |
|          | 21.82             | 22.05      | 21.81      | 22.50   |
| DC-HSDPA | 21.48             | 21.42      | 21.43      | 22.50   |
|          | 22.51             | 22.49      | 22.43      | 23.00   |
|          | 20.98             | 20.92      | 20.97      | 22.00   |
|          | 22.66             | 22.51      | 22.45      | 23.50   |
| HSPA+    | 23.63             | 23.62      | 24.13      | 24.50   |

**Table 11.2-10: The conducted Power for WCDMA B2 ANT4 (DS11)**

| WCDMA1900 | FDDII result (dBm) |           |             | Tune up |
|-----------|--------------------|-----------|-------------|---------|
|           | 9538/9938          | 9400/9800 | 9262/9662   |         |
|           | (1907.6MHz)        | (1880MHz) | (1852.4MHz) |         |
|           | 16.62              | 16.68     | 16.76       | 18.00   |
| HSUPA     | 16.05              | 16.04     | 16.00       | 16.50   |
|           | 16.01              | 15.97     | 16.00       | 16.50   |
|           | 15.41              | 15.47     | 15.45       | 16.00   |
|           | 15.50              | 15.45     | 15.43       | 16.00   |
|           | 13.97              | 13.95     | 13.86       | 14.50   |
| DC-HSDPA  | 13.95              | 13.95     | 13.88       | 14.50   |
|           | 14.81              | 14.89     | 14.97       | 15.00   |
|           | 13.37              | 13.45     | 13.43       | 14.00   |
|           | 15.01              | 14.94     | 14.91       | 15.50   |
| HSPA+     | 15.44              | 15.53     | 15.49       | 16.50   |

**Table 11.2-11: The conducted Power for WCDMA B2 ANT4 (DSI3)**

| WCDMA1900 | FDDII result (dBm) |           |             | Tune up |
|-----------|--------------------|-----------|-------------|---------|
|           | 9538/9938          | 9400/9800 | 9262/9662   |         |
|           | (1907.6MHz)        | (1880MHz) | (1852.4MHz) |         |
|           | 21.44              | 21.47     | 21.46       | 22.50   |
| HSUPA     | 20.52              | 20.51     | 20.43       | 21.00   |
|           | 20.54              | 20.45     | 20.52       | 21.00   |
|           | 20.04              | 19.94     | 19.90       | 20.50   |
|           | 19.91              | 19.95     | 19.91       | 20.50   |
|           | 18.43              | 18.45     | 18.45       | 19.00   |
| DC-HSDPA  | 18.45              | 18.46     | 18.43       | 19.00   |
|           | 19.36              | 19.35     | 19.44       | 19.50   |
|           | 17.95              | 17.96     | 17.93       | 18.50   |
|           | 19.44              | 19.41     | 19.48       | 20.00   |
| HSPA+     | 20.08              | 19.98     | 20.05       | 21.00   |

**Table 11.2-12: The conducted Power for WCDMA B2 ANT4 (DSI4)**

| WCDMA1900 | FDDII result (dBm) |           |             | Tune up |
|-----------|--------------------|-----------|-------------|---------|
|           | 9538/9938          | 9400/9800 | 9262/9662   |         |
|           | (1907.6MHz)        | (1880MHz) | (1852.4MHz) |         |
|           | 21.85              | 21.89     | 21.81       | 23.00   |
| HSUPA     | 21.09              | 21.00     | 21.06       | 21.50   |
|           | 20.98              | 20.94     | 20.94       | 21.50   |
|           | 20.45              | 20.45     | 20.41       | 21.00   |
|           | 20.43              | 20.46     | 20.50       | 21.00   |
|           | 19.01              | 18.97     | 18.99       | 19.50   |
| DC-HSDPA  | 18.97              | 18.99     | 19.02       | 19.50   |
|           | 19.84              | 19.87     | 19.82       | 20.00   |
|           | 18.48              | 18.47     | 18.56       | 19.00   |
|           | 19.95              | 19.93     | 19.95       | 20.50   |
| HSPA+     | 20.59              | 20.63     | 20.55       | 21.50   |

**Table 11.2-13: The conducted Power for WCDMA B2 ANT4 (DS15)**

| WCDMA1900 | FDDII result (dBm) |           |             | Tune up |
|-----------|--------------------|-----------|-------------|---------|
|           | 9538/9938          | 9400/9800 | 9262/9662   |         |
|           | (1907.6MHz)        | (1880MHz) | (1852.4MHz) |         |
|           | 19.16              | 19.22     | 19.15       | 20.50   |
| HSUPA     | 18.55              | 18.54     | 18.55       | 19.00   |
|           | 18.48              | 18.47     | 18.56       | 19.00   |
|           | 17.87              | 17.97     | 18.05       | 18.50   |
|           | 18.01              | 17.95     | 17.88       | 18.50   |
|           | 16.53              | 16.46     | 16.49       | 17.00   |
| DC-HSDPA  | 16.54              | 16.44     | 16.42       | 17.00   |
|           | 17.30              | 17.36     | 17.27       | 17.50   |
|           | 16.05              | 15.96     | 16.06       | 16.50   |
|           | 17.39              | 17.45     | 17.46       | 18.00   |
| HSPA+     | 18.01              | 18.06     | 18.05       | 19.00   |

**Table 11.2-14: The conducted Power for WCDMA B4 ANT4 (DS11)**

| WCDMA1700 | FDDIV result (dBm) |             |             | Tune up |
|-----------|--------------------|-------------|-------------|---------|
|           | 1513/1738          | 1412/1637   | 1312/1537   |         |
|           | (1752.6MHz)        | (1732.4MHz) | (1712.4MHz) |         |
|           | 15.04              | 15.09       | 15.01       | 16.50   |
| HSUPA     | 14.30              | 14.35       | 14.35       | 15.50   |
|           | 14.32              | 14.22       | 14.19       | 15.50   |
|           | 13.75              | 13.82       | 13.89       | 15.00   |
|           | 13.70              | 13.79       | 13.71       | 15.00   |
|           | 12.33              | 12.43       | 12.53       | 13.50   |
| DC-HSDPA  | 12.45              | 12.41       | 12.51       | 13.50   |
|           | 13.19              | 13.24       | 13.24       | 14.00   |
|           | 11.97              | 11.91       | 11.92       | 13.00   |
|           | 13.34              | 13.34       | 13.40       | 14.50   |
| HSPA+     | 14.03              | 13.98       | 13.98       | 15.50   |

**Table 11.2-15: The conducted Power for WCDMA B4 ANT4 (DSI3)**

| WCDMA1700 | FDDIV result (dBm) |             |             | Tune up |
|-----------|--------------------|-------------|-------------|---------|
|           | 1513/1738          | 1412/1637   | 1312/1537   |         |
|           | (1752.6MHz)        | (1732.4MHz) | (1712.4MHz) |         |
|           | 19.71              | 19.76       | 19.74       | 21.00   |
| HSUPA     | 18.78              | 18.85       | 18.78       | 20.00   |
|           | 18.64              | 18.66       | 18.72       | 20.00   |
|           | 18.26              | 18.34       | 18.36       | 19.50   |
|           | 18.41              | 18.31       | 18.33       | 19.50   |
|           | 16.83              | 16.87       | 16.77       | 18.00   |
| DC-HSDPA  | 16.91              | 16.86       | 16.96       | 18.00   |
|           | 17.76              | 17.75       | 17.71       | 18.50   |
|           | 16.45              | 16.39       | 16.41       | 17.50   |
|           | 17.92              | 17.86       | 17.80       | 19.00   |
| HSPA+     | 18.52              | 18.42       | 18.36       | 20.00   |

**Table 11.2-16: The conducted Power for WCDMA B4 ANT4 (DSI4)**

| WCDMA1700 | FDDIV result (dBm) |             |             | Tune up |
|-----------|--------------------|-------------|-------------|---------|
|           | 1513/1738          | 1412/1637   | 1312/1537   |         |
|           | (1752.6MHz)        | (1732.4MHz) | (1712.4MHz) |         |
|           | 20.22              | 20.26       | 20.24       | 21.50   |
| HSUPA     | 19.33              | 19.34       | 19.34       | 20.50   |
|           | 19.20              | 19.18       | 19.16       | 20.50   |
|           | 18.89              | 18.85       | 18.79       | 20.00   |
|           | 18.83              | 18.82       | 18.87       | 20.00   |
|           | 17.32              | 17.38       | 17.36       | 18.50   |
| DC-HSDPA  | 17.45              | 17.37       | 17.45       | 18.50   |
|           | 18.31              | 18.26       | 18.21       | 19.00   |
|           | 16.89              | 16.92       | 16.98       | 18.00   |
|           | 18.26              | 18.36       | 18.29       | 19.50   |
| HSPA+     | 18.91              | 18.89       | 18.97       | 20.50   |



**Table 11.2-17: The conducted Power for WCDMA B4 ANT4 (DS15)**

| WCDMA1700 | FDDIV result (dBm) |             |             | Tune up |
|-----------|--------------------|-------------|-------------|---------|
|           | 1513/1738          | 1412/1637   | 1312/1537   |         |
|           | (1752.6MHz)        | (1732.4MHz) | (1712.4MHz) |         |
|           | 18.13              | 18.18       | 18.02       | 19.50   |
| HSUPA     | 17.46              | 17.37       | 17.42       | 18.50   |
|           | 17.16              | 17.19       | 17.29       | 18.50   |
|           | 16.80              | 16.83       | 16.82       | 18.00   |
|           | 16.73              | 16.82       | 16.73       | 18.00   |
|           | 15.33              | 15.37       | 15.30       | 16.50   |
| DC-HSDPA  | 15.27              | 15.34       | 15.30       | 16.50   |
|           | 16.24              | 16.26       | 16.20       | 17.00   |
|           | 14.92              | 14.89       | 14.85       | 16.00   |
|           | 16.26              | 16.35       | 16.41       | 17.50   |
| HSPA+     | 16.99              | 16.91       | 16.95       | 18.50   |

**Table 11.2-18: The conducted Power for WCDMA B5 ANT4 (DS11/3/4/5)**

| WCDMA850 | FDDV result (dBm) |            |            | Tune up |
|----------|-------------------|------------|------------|---------|
|          | 4233/4458         | 4183/4408  | 4132/4357  |         |
|          | (846.6MHz)        | (836.6MHz) | (826.4MHz) |         |
|          | 24.36             | 24.43      | 24.41      | 25.50   |
| HSUPA    | 23.60             | 23.64      | 23.69      | 24.50   |
|          | 23.49             | 23.46      | 23.36      | 24.50   |
|          | 23.11             | 23.09      | 23.02      | 24.00   |
|          | 23.03             | 23.09      | 23.15      | 24.00   |
|          | 21.71             | 21.66      | 21.66      | 22.50   |
| DC-HSDPA | 21.63             | 21.63      | 21.54      | 22.50   |
|          | 22.54             | 22.53      | 22.45      | 23.00   |
|          | 21.17             | 21.14      | 21.17      | 22.00   |
|          | 22.58             | 22.64      | 22.71      | 23.50   |
| HSPA+    | 23.15             | 23.22      | 23.23      | 24.50   |

### 11.3 LTE Measurement result

#### Maximum Target Power for Production Unit

| Band    | Antenna | Tune up (dBm)                  |   |  |   |
|---------|---------|--------------------------------|---|--|---|
|         |         | Receiver on<br>(head scenario) | Receiver off+<br>Sensor on<br>(body scenario) | Receiver off+<br>Sensor off<br>(body/other scenario) | Receiver off+<br>Hotspot on<br>(hotspot scenario) |
|         |         | DSI1                           | DSI3  | DSI4   | DSI5  |
| LTE B2  | ANT1    | 25.5                           | 21  | 24.5   | 18.5  |
| LTE B2  | ANT4    | 18                             | 22.5  | 24   | 20.5  |
| LTE B7  | ANT1    | 25.5                           | 22  | 23.5   | 21.5  |
| LTE B7  | ANT4    | 16                             | 21  | 24   | 21  |
| LTE B12 | ANT1    | 25.5                           | 25.5  | 25.5   | 25.5  |
| LTE B12 | ANT4    | 25.5                           | 25.5  | 25.5   | 25.5  |
| LTE B13 | ANT1    | 25.5                           | 25.5  | 25.5   | 25.5  |
| LTE B13 | ANT4    | 25.5                           | 25.5  | 25.5   | 25.5  |
| LTE B26 | ANT1    | 25.5                           | 25.5  | 25.5   | 25.5  |
| LTE B26 | ANT4    | 25.5                           | 25.5  | 25.5   | 25.5  |
| LTE B41 | ANT1    | 25.5                           | 24.5  | 24.5   | 24.5  |
| LTE B41 | ANT4    | 19.5                           | 22.5  | 25.5   | 24.5  |
| LTE B66 | ANT1    | 25.5                           | 22  | 23.5   | 18.5  |
| LTE B66 | ANT4    | 16.5                           | 21  | 23   | 19.5  |

#### Maximum Power Reduction (MPR) for LTE

| Modulation | Channel bandwidth / Transmission bandwidth configuration [RB] |     |     |      |      |      | MPR (dB) |
|------------|---|-----|-----|------|------|------|----------|
|            | 1.4   | 3   | 5   | 10   | 15   | 20   |          |
|            | MHz   | MHz | MHz | MHz  | MHz  | 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 | 3        |
| 64 QAM     | > 5   | > 4 | > 8 | > 12 | > 16 | > 18 | 3        |

## LTE Band2 ANT1 (DSI1)

| BANDWIDTH | Number of RBs  | Frequency      | QPSK  | 16QAM | 64QAM |
|-----------|----------------|----------------|-------|-------|-------|
| 1.4MHz    | 1RB-High (5)   | 1909.3 (19193) | 24.22 | 23.37 | 22.47 |
|           |                | 1880 (18900)   | 24.25 | 23.55 | 22.55 |
|           |                | 1850.7 (18607) | 24.35 | 23.47 | 22.61 |
|           | 1RB-Middle (3) | 1909.3 (19193) | 24.29 | 23.48 | 22.47 |
|           |                | 1880 (18900)   | 24.34 | 23.56 | 22.67 |
|           |                | 1850.7 (18607) | 24.41 | 23.53 | 22.65 |
|           | 1RB-Low (0)    | 1909.3 (19193) | 24.21 | 23.30 | 22.42 |
|           |                | 1880 (18900)   | 24.25 | 23.57 | 22.55 |
|           |                | 1850.7 (18607) | 24.39 | 23.51 | 22.60 |
|           | 3RB-High (3)   | 1909.3 (19193) | 24.35 | 23.27 | 22.46 |
|           |                | 1880 (18900)   | 24.38 | 23.29 | 22.57 |
|           |                | 1850.7 (18607) | 24.49 | 23.36 | 22.65 |
|           | 3RB-Middle (1) | 1909.3 (19193) | 24.36 | 23.20 | 22.50 |
|           |                | 1880 (18900)   | 24.39 | 23.41 | 22.60 |
|           |                | 1850.7 (18607) | 24.52 | 23.43 | 22.59 |
|           | 3RB-Low (0)    | 1909.3 (19193) | 24.33 | 23.25 | 22.48 |
|           |                | 1880 (18900)   | 24.36 | 23.31 | 22.60 |
|           |                | 1850.7 (18607) | 24.49 | 23.39 | 22.56 |
|           | 6RB (0)        | 1909.3 (19193) | 23.43 | 22.51 | 21.47 |
|           |                | 1880 (18900)   | 23.49 | 22.59 | 21.56 |
|           |                | 1850.7 (18607) | 23.60 | 22.68 | 21.62 |
| 3MHz      | 1RB-High (14)  | 1908.5 (19185) | 24.15 | 23.31 | 22.36 |
|           |                | 1880 (18900)   | 24.18 | 23.38 | 22.57 |
|           |                | 1851.5 (18615) | 24.26 | 23.36 | 22.47 |
|           | 1RB-Middle (7) | 1908.5 (19185) | 24.17 | 23.33 | 22.46 |
|           |                | 1880 (18900)   | 24.29 | 23.47 | 22.63 |
|           |                | 1851.5 (18615) | 24.37 | 23.46 | 22.59 |
|           | 1RB-Low (0)    | 1908.5 (19185) | 24.10 | 23.19 | 22.38 |
|           |                | 1880 (18900)   | 24.18 | 23.43 | 22.49 |
|           |                | 1851.5 (18615) | 24.27 | 23.41 | 22.52 |
|           | 8RB-High (7)   | 1908.5 (19185) | 23.32 | 22.38 | 21.41 |
|           |                | 1880 (18900)   | 23.40 | 22.47 | 21.51 |
|           |                | 1851.5 (18615) | 23.48 | 22.49 | 21.55 |
|           | 8RB-Middle (4) | 1908.5 (19185) | 23.36 | 22.42 | 21.46 |
|           |                | 1880 (18900)   | 23.45 | 22.53 | 21.56 |
|           |                | 1851.5 (18615) | 23.53 | 22.56 | 21.58 |
|           | 8RB-Low (0)    | 1908.5 (19185) | 23.31 | 22.37 | 21.42 |
|           |                | 1880 (18900)   | 23.37 | 22.46 | 21.49 |

|                  |                 |                |              |       |       |       |
|------------------|-----------------|----------------|--------------|-------|-------|-------|
|                  |                 | 1851.5 (18615) | 23.46        | 22.47 | 21.52 |       |
|                  | 15RB (0)        | 1908.5 (19185) | 23.36        | 22.32 | 21.38 |       |
|                  |                 | 1880 (18900)   | 23.40        | 22.44 | 21.42 |       |
|                  |                 | 1851.5 (18615) | 23.52        | 22.49 | 21.54 |       |
| 5MHz             | 1RB-High (24)   | 1907.5 (19175) | 24.32        | 23.51 | 22.49 |       |
|                  |                 | 1880 (18900)   | 24.37        | 23.58 | 22.62 |       |
|                  |                 | 1852.5 (18625) | 24.43        | 23.64 | 22.71 |       |
|                  | 1RB-Middle (12) | 1907.5 (19175) | 24.44        | 23.62 | 22.64 |       |
|                  |                 | 1880 (18900)   | 24.50        | 23.73 | 22.78 |       |
|                  |                 | 1852.5 (18625) | 24.54        | 23.64 | 22.70 |       |
|                  | 1RB-Low (0)     | 1907.5 (19175) | 24.32        | 23.46 | 22.45 |       |
|                  |                 | 1880 (18900)   | 24.39        | 23.60 | 22.65 |       |
|                  |                 | 1852.5 (18625) | 24.46        | 23.65 | 22.67 |       |
|                  | 12RB-High (13)  | 1907.5 (19175) | 23.39        | 22.39 | 21.47 |       |
|                  |                 | 1880 (18900)   | 23.52        | 22.54 | 21.61 |       |
|                  |                 | 1852.5 (18625) | 23.53        | 22.51 | 21.59 |       |
|                  | 12RB-Middle (6) | 1907.5 (19175) | 23.44        | 22.46 | 21.56 |       |
|                  |                 | 1880 (18900)   | 23.53        | 22.57 | 21.60 |       |
|                  |                 | 1852.5 (18625) | 23.62        | 22.60 | 21.67 |       |
|                  | 12RB-Low (0)    | 1907.5 (19175) | 23.40        | 22.39 | 21.46 |       |
|                  |                 | 1880 (18900)   | 23.44        | 22.46 | 21.53 |       |
|                  |                 | 1852.5 (18625) | 23.54        | 22.50 | 21.58 |       |
|                  | 25RB (0)        | 1907.5 (19175) | 23.44        | 22.44 | 21.47 |       |
|                  |                 | 1880 (18900)   | 23.50        | 22.54 | 21.55 |       |
|                  |                 | 1852.5 (18625) | 23.56        | 22.60 | 21.60 |       |
|                  | 10MHz           | 1RB-High (49)  | 1905 (19150) | 24.44 | 23.47 | 22.62 |
|                  |                 |                | 1880 (18900) | 24.48 | 23.67 | 22.68 |
|                  |                 |                | 1855 (18650) | 24.53 | 23.74 | 22.70 |
| 1RB-Middle (24)  |                 | 1905 (19150)   | 24.43        | 23.67 | 22.58 |       |
|                  |                 | 1880 (18900)   | 24.53        | 23.69 | 22.72 |       |
|                  |                 | 1855 (18650)   | 24.51        | 23.75 | 22.73 |       |
| 1RB-Low (0)      |                 | 1905 (19150)   | 24.42        | 23.64 | 22.60 |       |
|                  |                 | 1880 (18900)   | 24.50        | 23.78 | 22.69 |       |
|                  |                 | 1855 (18650)   | 24.52        | 23.66 | 22.69 |       |
| 25RB-High (25)   |                 | 1905 (19150)   | 23.42        | 22.42 | 21.47 |       |
|                  |                 | 1880 (18900)   | 23.53        | 22.56 | 21.60 |       |
|                  |                 | 1855 (18650)   | 23.55        | 22.55 | 21.60 |       |
| 25RB-Middle (12) |                 | 1905 (19150)   | 23.49        | 22.49 | 21.56 |       |
|                  |                 | 1880 (18900)   | 23.55        | 22.58 | 21.63 |       |
|                  |                 | 1855 (18650)   | 23.60        | 22.62 | 21.66 |       |
| 25RB-Low (0)     | 1905 (19150)    | 23.45          | 22.48        | 21.52 |       |       |

|                  |                  |                 |              |       |       |       |
|------------------|------------------|-----------------|--------------|-------|-------|-------|
|                  | 50RB (0)         | 1880 (18900)    | 23.45        | 22.47 | 21.49 |       |
|                  |                  | 1855 (18650)    | 23.58        | 22.57 | 21.57 |       |
|                  |                  | 1905 (19150)    | 23.46        | 22.44 | 21.51 |       |
|                  |                  | 1880 (18900)    | 23.52        | 22.53 | 21.55 |       |
|                  |                  | 1855 (18650)    | 23.57        | 22.58 | 21.59 |       |
| 15MHz            | 1RB-High (74)    | 1902.5 (19125)  | 24.32        | 23.49 | 22.49 |       |
|                  |                  | 1880 (18900)    | 24.39        | 23.59 | 22.64 |       |
|                  |                  | 1857.5 (18675)  | 24.47        | 23.62 | 22.71 |       |
|                  | 1RB-Middle (37)  | 1902.5 (19125)  | 24.41        | 23.58 | 22.66 |       |
|                  |                  | 1880 (18900)    | 24.51        | 23.84 | 22.71 |       |
|                  |                  | 1857.5 (18675)  | 24.53        | 23.77 | 22.76 |       |
|                  | 1RB-Low (0)      | 1902.5 (19125)  | 24.37        | 23.59 | 22.58 |       |
|                  |                  | 1880 (18900)    | 24.43        | 23.66 | 22.70 |       |
|                  |                  | 1857.5 (18675)  | 24.49        | 23.55 | 22.71 |       |
|                  | 36RB-High (38)   | 1902.5 (19125)  | 23.43        | 22.41 | 21.46 |       |
|                  |                  | 1880 (18900)    | 23.50        | 22.55 | 21.57 |       |
|                  |                  | 1857.5 (18675)  | 23.56        | 22.56 | 21.63 |       |
|                  | 36RB-Middle (19) | 1902.5 (19125)  | 23.46        | 22.48 | 21.52 |       |
|                  |                  | 1880 (18900)    | 23.52        | 22.54 | 21.61 |       |
|                  |                  | 1857.5 (18675)  | 23.56        | 22.58 | 21.64 |       |
|                  | 36RB-Low (0)     | 1902.5 (19125)  | 23.46        | 22.44 | 21.49 |       |
|                  |                  | 1880 (18900)    | 23.46        | 22.48 | 21.54 |       |
|                  |                  | 1857.5 (18675)  | 23.59        | 22.54 | 21.63 |       |
|                  | 75RB (0)         | 1902.5 (19125)  | 23.48        | 22.47 | 21.48 |       |
|                  |                  | 1880 (18900)    | 23.51        | 22.52 | 21.54 |       |
|                  |                  | 1857.5 (18675)  | 23.57        | 22.55 | 21.59 |       |
|                  | 20MHz            | 1RB-High (99)   | 1900 (19100) | 24.29 | 23.48 | 22.42 |
|                  |                  |                 | 1880 (18900) | 24.33 | 23.53 | 22.58 |
|                  |                  |                 | 1860 (18700) | 24.40 | 23.62 | 22.63 |
|                  |                  | 1RB-Middle (50) | 1900 (19100) | 24.43 | 23.64 | 22.59 |
|                  |                  |                 | 1880 (18900) | 24.56 | 23.76 | 22.78 |
|                  |                  |                 | 1860 (18700) | 24.55 | 23.84 | 22.78 |
| 1RB-Low (0)      |                  | 1900 (19100)    | 24.31        | 23.47 | 22.47 |       |
|                  |                  | 1880 (18900)    | 24.35        | 23.63 | 22.54 |       |
|                  |                  | 1860 (18700)    | 24.42        | 23.48 | 22.56 |       |
| 50RB-High (50)   |                  | 1900 (19100)    | 23.44        | 22.41 | 21.44 |       |
|                  |                  | 1880 (18900)    | 23.60        | 22.57 | 21.60 |       |
|                  |                  | 1860 (18700)    | 23.62        | 22.60 | 21.65 |       |
| 50RB-Middle (25) |                  | 1900 (19100)    | 23.54        | 22.51 | 21.54 |       |
|                  |                  | 1880 (18900)    | 23.66        | 22.57 | 21.60 |       |
|                  |                  | 1860 (18700)    | 23.65        | 22.64 | 21.64 |       |

|  |              |              |       |       |       |
|--|--------------|--------------|-------|-------|-------|
|  | 50RB-Low (0) | 1900 (19100) | 23.51 | 22.48 | 21.49 |
|  |              | 1880 (18900) | 23.42 | 22.43 | 21.46 |
|  |              | 1860 (18700) | 23.60 | 22.57 | 21.59 |
|  | 100RB (0)    | 1900 (19100) | 23.47 | 22.42 | 21.44 |
|  |              | 1880 (18900) | 23.50 | 22.49 | 21.52 |
|  |              | 1860 (18700) | 23.58 | 22.58 | 21.61 |

**LTE Band2 ANT1 (DSI3)**

| BANDWIDTH    | Number of RBs  | Frequency      | QPSK  | 16QAM | 64QAM |
|--------------|----------------|----------------|-------|-------|-------|
| 1.4MHz       | 1RB-High (5)   | 1909.3 (19193) | 18.98 | 19.00 | 19.11 |
|              |                | 1880 (18900)   | 19.20 | 19.36 | 19.31 |
|              |                | 1850.7 (18607) | 19.14 | 19.47 | 19.38 |
|              | 1RB-Middle (3) | 1909.3 (19193) | 19.16 | 19.24 | 19.34 |
|              |                | 1880 (18900)   | 19.18 | 19.66 | 19.42 |
|              |                | 1850.7 (18607) | 19.62 | 19.76 | 19.54 |
|              | 1RB-Low (0)    | 1909.3 (19193) | 18.83 | 19.17 | 18.95 |
|              |                | 1880 (18900)   | 19.23 | 19.30 | 19.36 |
|              |                | 1850.7 (18607) | 19.35 | 19.77 | 19.29 |
|              | 3RB-High (3)   | 1909.3 (19193) | 19.23 | 19.00 | 19.23 |
|              |                | 1880 (18900)   | 18.88 | 19.26 | 19.30 |
|              |                | 1850.7 (18607) | 19.24 | 19.31 | 19.34 |
|              | 3RB-Middle (1) | 1909.3 (19193) | 19.06 | 19.32 | 19.21 |
|              |                | 1880 (18900)   | 19.25 | 19.65 | 19.38 |
|              |                | 1850.7 (18607) | 19.38 | 19.61 | 19.63 |
|              | 3RB-Low (0)    | 1909.3 (19193) | 18.89 | 19.19 | 19.23 |
|              |                | 1880 (18900)   | 19.18 | 19.38 | 19.29 |
|              |                | 1850.7 (18607) | 19.47 | 19.66 | 19.46 |
|              | 6RB (0)        | 1909.3 (19193) | 19.38 | 19.31 | 19.28 |
|              |                | 1880 (18900)   | 19.27 | 19.14 | 19.31 |
|              |                | 1850.7 (18607) | 19.27 | 19.40 | 19.30 |
| 3MHz         | 1RB-High (14)  | 1908.5 (19185) | 18.92 | 19.05 | 19.25 |
|              |                | 1880 (18900)   | 18.89 | 19.38 | 19.19 |
|              |                | 1851.5 (18615) | 19.06 | 19.37 | 19.23 |
|              | 1RB-Middle (7) | 1908.5 (19185) | 19.13 | 19.45 | 19.53 |
|              |                | 1880 (18900)   | 19.27 | 19.63 | 19.53 |
|              |                | 1851.5 (18615) | 19.41 | 19.60 | 19.43 |
|              | 1RB-Low (0)    | 1908.5 (19185) | 19.05 | 19.32 | 19.00 |
|              |                | 1880 (18900)   | 19.22 | 19.27 | 19.19 |
|              |                | 1851.5 (18615) | 19.45 | 19.75 | 19.35 |
| 8RB-High (7) | 1908.5 (19185) | 19.34          | 19.28 | 19.26 |       |

|                 |                 |                |              |       |       |       |
|-----------------|-----------------|----------------|--------------|-------|-------|-------|
|                 | 8RB-Middle (4)  | 1880 (18900)   | 19.35        | 19.44 | 19.25 |       |
|                 |                 | 1851.5 (18615) | 19.51        | 19.37 | 19.48 |       |
|                 |                 | 1908.5 (19185) | 19.57        | 19.28 | 19.02 |       |
|                 |                 | 1880 (18900)   | 19.25        | 19.30 | 19.28 |       |
|                 |                 | 1851.5 (18615) | 19.39        | 19.33 | 19.34 |       |
|                 |                 | 1908.5 (19185) | 19.28        | 19.21 | 19.11 |       |
|                 | 8RB-Low (0)     | 1880 (18900)   | 19.35        | 19.19 | 19.35 |       |
|                 |                 | 1851.5 (18615) | 19.56        | 19.33 | 19.26 |       |
|                 |                 | 1908.5 (19185) | 19.34        | 19.14 | 19.10 |       |
|                 | 15RB (0)        | 1880 (18900)   | 19.39        | 19.18 | 19.17 |       |
|                 |                 | 1851.5 (18615) | 19.41        | 19.45 | 19.45 |       |
|                 |                 | 1907.5 (19175) | 19.03        | 19.29 | 18.95 |       |
| 5MHz            | 1RB-High (24)   | 1880 (18900)   | 19.10        | 19.31 | 19.28 |       |
|                 |                 | 1852.5 (18625) | 19.13        | 19.54 | 19.27 |       |
|                 |                 | 1907.5 (19175) | 19.16        | 19.25 | 19.41 |       |
|                 | 1RB-Middle (12) | 1880 (18900)   | 19.25        | 19.64 | 19.56 |       |
|                 |                 | 1852.5 (18625) | 19.38        | 19.73 | 19.67 |       |
|                 |                 | 1907.5 (19175) | 18.92        | 19.20 | 19.07 |       |
|                 | 1RB-Low (0)     | 1880 (18900)   | 19.21        | 19.26 | 19.36 |       |
|                 |                 | 1852.5 (18625) | 19.25        | 19.64 | 19.47 |       |
|                 |                 | 1907.5 (19175) | 19.17        | 19.20 | 19.02 |       |
|                 | 12RB-High (13)  | 1880 (18900)   | 19.44        | 19.39 | 19.48 |       |
|                 |                 | 1852.5 (18625) | 19.52        | 19.44 | 19.24 |       |
|                 |                 | 1907.5 (19175) | 19.62        | 19.22 | 19.16 |       |
|                 | 12RB-Middle (6) | 1880 (18900)   | 19.52        | 19.15 | 19.21 |       |
|                 |                 | 1852.5 (18625) | 19.55        | 19.30 | 19.31 |       |
|                 |                 | 1907.5 (19175) | 19.19        | 19.13 | 19.08 |       |
|                 | 12RB-Low (0)    | 1880 (18900)   | 19.14        | 19.11 | 19.26 |       |
|                 |                 | 1852.5 (18625) | 19.32        | 19.46 | 19.41 |       |
|                 |                 | 1907.5 (19175) | 19.40        | 19.07 | 19.01 |       |
|                 | 25RB (0)        | 1880 (18900)   | 19.11        | 19.23 | 19.18 |       |
|                 |                 | 1852.5 (18625) | 19.43        | 19.27 | 19.27 |       |
|                 |                 | 1905 (19150)   | 19.14        | 19.24 | 19.13 |       |
|                 | 10MHz           | 1RB-High (49)  | 1880 (18900) | 18.86 | 19.33 | 19.00 |
|                 |                 |                | 1855 (18650) | 19.17 | 19.33 | 19.46 |
|                 |                 |                | 1905 (19150) | 19.08 | 19.55 | 19.52 |
| 1RB-Middle (24) |                 | 1880 (18900)   | 19.33        | 19.52 | 19.59 |       |
|                 |                 | 1855 (18650)   | 19.54        | 19.91 | 19.70 |       |
|                 |                 | 1905 (19150)   | 18.90        | 19.22 | 19.31 |       |
| 1RB-Low (0)     |                 | 1880 (18900)   | 19.12        | 19.34 | 19.28 |       |
|                 |                 | 1855 (18650)   | 19.34        | 19.62 | 19.61 |       |

|       |                  |                |       |       |       |
|-------|------------------|----------------|-------|-------|-------|
|       | 25RB-High (25)   | 1905 (19150)   | 19.16 | 19.03 | 19.29 |
|       |                  | 1880 (18900)   | 19.48 | 19.46 | 19.14 |
|       |                  | 1855 (18650)   | 19.30 | 19.26 | 19.20 |
|       | 25RB-Middle (12) | 1905 (19150)   | 19.36 | 19.24 | 19.28 |
|       |                  | 1880 (18900)   | 19.51 | 19.29 | 19.42 |
|       |                  | 1855 (18650)   | 19.56 | 19.50 | 19.46 |
|       | 25RB-Low (0)     | 1905 (19150)   | 19.41 | 19.04 | 19.05 |
|       |                  | 1880 (18900)   | 19.16 | 19.07 | 19.31 |
|       |                  | 1855 (18650)   | 19.45 | 19.45 | 19.30 |
|       | 50RB (0)         | 1905 (19150)   | 19.30 | 19.26 | 19.34 |
|       |                  | 1880 (18900)   | 19.12 | 19.26 | 19.12 |
|       |                  | 1855 (18650)   | 19.34 | 19.33 | 19.45 |
| 15MHz | 1RB-High (74)    | 1902.5 (19125) | 19.11 | 19.25 | 19.04 |
|       |                  | 1880 (18900)   | 18.99 | 19.11 | 19.31 |
|       |                  | 1857.5 (18675) | 19.20 | 19.39 | 19.31 |
|       | 1RB-Middle (37)  | 1902.5 (19125) | 19.22 | 19.54 | 19.25 |
|       |                  | 1880 (18900)   | 19.15 | 19.31 | 19.56 |
|       |                  | 1857.5 (18675) | 19.58 | 19.72 | 19.44 |
|       | 1RB-Low (0)      | 1902.5 (19125) | 19.04 | 19.25 | 19.18 |
|       |                  | 1880 (18900)   | 19.18 | 19.30 | 19.19 |
|       |                  | 1857.5 (18675) | 19.51 | 19.68 | 19.49 |
|       | 36RB-High (38)   | 1902.5 (19125) | 19.15 | 19.12 | 19.13 |
|       |                  | 1880 (18900)   | 19.16 | 19.34 | 19.42 |
|       |                  | 1857.5 (18675) | 19.28 | 19.30 | 19.30 |
|       | 36RB-Middle (19) | 1902.5 (19125) | 19.49 | 19.21 | 19.02 |
|       |                  | 1880 (18900)   | 19.59 | 19.22 | 19.38 |
|       |                  | 1857.5 (18675) | 19.41 | 19.61 | 19.39 |
|       | 36RB-Low (0)     | 1902.5 (19125) | 19.20 | 19.35 | 19.11 |
|       |                  | 1880 (18900)   | 19.34 | 19.39 | 19.12 |
|       |                  | 1857.5 (18675) | 19.43 | 19.41 | 19.44 |
|       | 75RB (0)         | 1902.5 (19125) | 19.42 | 19.31 | 19.12 |
|       |                  | 1880 (18900)   | 19.09 | 19.36 | 19.40 |
|       |                  | 1857.5 (18675) | 19.51 | 19.36 | 19.25 |
| 20MHz | 1RB-High (99)    | 1900 (19100)   | 19.10 | 19.17 | 19.11 |
|       |                  | 1880 (18900)   | 19.02 | 19.26 | 19.17 |
|       |                  | 1860 (18700)   | 19.20 | 19.45 | 19.34 |
|       | 1RB-Middle (50)  | 1900 (19100)   | 19.15 | 19.41 | 19.35 |
|       |                  | 1880 (18900)   | 19.29 | 19.48 | 19.43 |
|       |                  | 1860 (18700)   | 19.47 | 19.74 | 19.59 |
|       | 1RB-Low (0)      | 1900 (19100)   | 19.01 | 19.14 | 19.13 |
|       |                  | 1880 (18900)   | 19.17 | 19.39 | 19.27 |



|                  |  |              |       |       |       |
|------------------|--|--------------|-------|-------|-------|
|                  |  | 1860 (18700) | 19.38 | 19.63 | 19.46 |
| 50RB-High (50)   |  | 1900 (19100) | 19.21 | 19.16 | 19.17 |
|                  |  | 1880 (18900) | 19.33 | 19.29 | 19.30 |
|                  |  | 1860 (18700) | 19.41 | 19.38 | 19.36 |
| 50RB-Middle (25) |  | 1900 (19100) | 19.45 | 19.20 | 19.19 |
|                  |  | 1880 (18900) | 19.42 | 19.32 | 19.33 |
|                  |  | 1860 (18700) | 19.46 | 19.46 | 19.46 |
| 50RB-Low (0)     |  | 1900 (19100) | 19.28 | 19.21 | 19.19 |
|                  |  | 1880 (18900) | 19.25 | 19.23 | 19.24 |
|                  |  | 1860 (18700) | 19.44 | 19.39 | 19.40 |
| 100RB (0)        |  | 1900 (19100) | 19.25 | 19.16 | 19.16 |
|                  |  | 1880 (18900) | 19.27 | 19.22 | 19.25 |
|                  |  | 1860 (18700) | 19.40 | 19.33 | 19.38 |

**LTE Band2 ANT1 (DSI4)**

| BANDWIDTH | Number of RBs  | Frequency      | QPSK  | 16QAM | 64QAM |
|-----------|----------------|----------------|-------|-------|-------|
| 1.4MHz    | 1RB-High (5)   | 1909.3 (19193) | 23.36 | 23.44 | 22.42 |
|           |                | 1880 (18900)   | 23.35 | 23.33 | 22.33 |
|           |                | 1850.7 (18607) | 23.25 | 23.64 | 22.62 |
|           | 1RB-Middle (3) | 1909.3 (19193) | 23.46 | 23.54 | 22.53 |
|           |                | 1880 (18900)   | 23.62 | 23.80 | 22.61 |
|           |                | 1850.7 (18607) | 23.62 | 23.85 | 22.78 |
|           | 1RB-Low (0)    | 1909.3 (19193) | 23.12 | 23.34 | 22.51 |
|           |                | 1880 (18900)   | 23.27 | 23.32 | 22.38 |
|           |                | 1850.7 (18607) | 23.49 | 23.39 | 22.47 |
|           | 3RB-High (3)   | 1909.3 (19193) | 23.32 | 23.34 | 22.56 |
|           |                | 1880 (18900)   | 23.11 | 23.28 | 22.33 |
|           |                | 1850.7 (18607) | 23.27 | 23.45 | 22.60 |
|           | 3RB-Middle (1) | 1909.3 (19193) | 23.48 | 23.72 | 22.54 |
|           |                | 1880 (18900)   | 23.68 | 23.59 | 22.66 |
|           |                | 1850.7 (18607) | 23.57 | 23.80 | 22.82 |
|           | 3RB-Low (0)    | 1909.3 (19193) | 23.42 | 23.46 | 22.35 |
|           |                | 1880 (18900)   | 23.17 | 23.46 | 22.38 |
|           |                | 1850.7 (18607) | 23.52 | 23.40 | 22.66 |
|           | 6RB (0)        | 1909.3 (19193) | 23.30 | 22.40 | 21.44 |
|           |                | 1880 (18900)   | 23.53 | 22.40 | 21.51 |
|           |                | 1850.7 (18607) | 23.43 | 22.42 | 21.50 |
| 3MHz      | 1RB-High (14)  | 1908.5 (19185) | 23.20 | 23.55 | 22.48 |
|           |                | 1880 (18900)   | 23.39 | 23.56 | 22.40 |
|           |                | 1851.5 (18615) | 23.38 | 23.71 | 22.71 |

|                 |                |                |                |       |       |       |
|-----------------|----------------|----------------|----------------|-------|-------|-------|
|                 | 1RB-Middle (7) | 1908.5 (19185) | 23.59          | 23.63 | 22.57 |       |
|                 |                | 1880 (18900)   | 23.68          | 23.82 | 22.69 |       |
|                 |                | 1851.5 (18615) | 23.63          | 23.56 | 22.81 |       |
|                 | 1RB-Low (0)    | 1908.5 (19185) | 23.21          | 23.41 | 22.47 |       |
|                 |                | 1880 (18900)   | 23.19          | 23.44 | 22.36 |       |
|                 |                | 1851.5 (18615) | 23.17          | 23.41 | 22.61 |       |
|                 | 8RB-High (7)   | 1908.5 (19185) | 23.41          | 22.35 | 21.59 |       |
|                 |                | 1880 (18900)   | 23.57          | 22.34 | 21.44 |       |
|                 |                | 1851.5 (18615) | 23.60          | 22.46 | 21.44 |       |
|                 | 8RB-Middle (4) | 1908.5 (19185) | 23.48          | 22.44 | 21.62 |       |
|                 |                | 1880 (18900)   | 23.47          | 22.43 | 21.36 |       |
|                 |                | 1851.5 (18615) | 23.46          | 22.58 | 21.74 |       |
|                 | 8RB-Low (0)    | 1908.5 (19185) | 23.55          | 22.33 | 21.51 |       |
|                 |                | 1880 (18900)   | 23.42          | 22.22 | 21.48 |       |
|                 |                | 1851.5 (18615) | 23.32          | 22.54 | 21.40 |       |
|                 | 15RB (0)       | 1908.5 (19185) | 23.36          | 22.26 | 21.52 |       |
|                 |                | 1880 (18900)   | 23.63          | 22.23 | 21.24 |       |
|                 |                | 1851.5 (18615) | 23.42          | 22.46 | 21.47 |       |
|                 | 5MHz           | 1RB-High (24)  | 1907.5 (19175) | 23.27 | 23.44 | 22.54 |
|                 |                |                | 1880 (18900)   | 23.10 | 23.33 | 22.50 |
|                 |                |                | 1852.5 (18625) | 23.25 | 23.67 | 22.38 |
| 1RB-Middle (12) |                | 1907.5 (19175) | 23.55          | 23.59 | 22.51 |       |
|                 |                | 1880 (18900)   | 23.38          | 23.60 | 22.68 |       |
|                 |                | 1852.5 (18625) | 23.43          | 23.72 | 22.93 |       |
| 1RB-Low (0)     |                | 1907.5 (19175) | 23.38          | 23.54 | 22.64 |       |
|                 |                | 1880 (18900)   | 23.17          | 23.43 | 22.48 |       |
|                 |                | 1852.5 (18625) | 23.41          | 23.74 | 22.60 |       |
| 12RB-High (13)  |                | 1907.5 (19175) | 23.36          | 22.51 | 21.59 |       |
|                 |                | 1880 (18900)   | 23.39          | 22.54 | 21.34 |       |
|                 |                | 1852.5 (18625) | 23.71          | 22.41 | 21.63 |       |
| 12RB-Middle (6) |                | 1907.5 (19175) | 23.39          | 22.40 | 21.69 |       |
|                 |                | 1880 (18900)   | 23.65          | 22.54 | 21.67 |       |
|                 |                | 1852.5 (18625) | 23.72          | 22.39 | 21.75 |       |
| 12RB-Low (0)    |                | 1907.5 (19175) | 23.33          | 22.38 | 21.34 |       |
|                 |                | 1880 (18900)   | 23.46          | 22.34 | 21.26 |       |
|                 |                | 1852.5 (18625) | 23.56          | 22.63 | 21.60 |       |
| 25RB (0)        |                | 1907.5 (19175) | 23.52          | 22.46 | 21.63 |       |
|                 |                | 1880 (18900)   | 23.37          | 22.52 | 21.26 |       |
|                 |                | 1852.5 (18625) | 23.61          | 22.26 | 21.58 |       |
| 10MHz           |                | 1RB-High (49)  | 1905 (19150)   | 23.23 | 23.54 | 22.49 |
|                 |                |                | 1880 (18900)   | 23.35 | 23.46 | 22.36 |

|       |                  |                |       |       |       |
|-------|------------------|----------------|-------|-------|-------|
|       |                  | 1855 (18650)   | 23.35 | 23.75 | 22.66 |
|       | 1RB-Middle (24)  | 1905 (19150)   | 23.31 | 23.62 | 22.66 |
|       |                  | 1880 (18900)   | 23.37 | 23.82 | 22.76 |
|       |                  | 1855 (18650)   | 23.69 | 23.72 | 22.86 |
|       | 1RB-Low (0)      | 1905 (19150)   | 23.30 | 23.47 | 22.36 |
|       |                  | 1880 (18900)   | 23.19 | 23.62 | 22.47 |
|       |                  | 1855 (18650)   | 23.39 | 23.44 | 22.44 |
|       | 25RB-High (25)   | 1905 (19150)   | 23.56 | 22.50 | 21.47 |
|       |                  | 1880 (18900)   | 23.51 | 22.51 | 21.48 |
|       |                  | 1855 (18650)   | 23.37 | 22.45 | 21.65 |
|       | 25RB-Middle (12) | 1905 (19150)   | 23.69 | 22.59 | 21.59 |
|       |                  | 1880 (18900)   | 23.61 | 22.33 | 21.63 |
|       |                  | 1855 (18650)   | 23.55 | 22.45 | 21.47 |
|       | 25RB-Low (0)     | 1905 (19150)   | 23.62 | 22.29 | 21.41 |
|       |                  | 1880 (18900)   | 23.23 | 22.36 | 21.53 |
|       |                  | 1855 (18650)   | 23.59 | 22.45 | 21.59 |
|       | 50RB (0)         | 1905 (19150)   | 23.58 | 22.28 | 21.62 |
|       |                  | 1880 (18900)   | 23.51 | 22.23 | 21.41 |
|       |                  | 1855 (18650)   | 23.43 | 22.49 | 21.56 |
| 15MHz | 1RB-High (74)    | 1902.5 (19125) | 23.21 | 23.42 | 22.29 |
|       |                  | 1880 (18900)   | 23.08 | 23.25 | 22.37 |
|       |                  | 1857.5 (18675) | 23.39 | 23.59 | 22.65 |
|       | 1RB-Middle (37)  | 1902.5 (19125) | 23.38 | 23.64 | 22.47 |
|       |                  | 1880 (18900)   | 23.40 | 23.65 | 22.87 |
|       |                  | 1857.5 (18675) | 23.37 | 23.55 | 22.69 |
|       | 1RB-Low (0)      | 1902.5 (19125) | 23.20 | 23.48 | 22.35 |
|       |                  | 1880 (18900)   | 23.16 | 23.44 | 22.63 |
|       |                  | 1857.5 (18675) | 23.48 | 23.62 | 22.59 |
|       | 36RB-High (38)   | 1902.5 (19125) | 23.56 | 22.49 | 21.36 |
|       |                  | 1880 (18900)   | 23.50 | 22.40 | 21.55 |
|       |                  | 1857.5 (18675) | 23.51 | 22.52 | 21.61 |
|       | 36RB-Middle (19) | 1902.5 (19125) | 23.36 | 22.53 | 21.40 |
|       |                  | 1880 (18900)   | 23.43 | 22.45 | 21.36 |
|       |                  | 1857.5 (18675) | 23.56 | 22.65 | 21.74 |
|       | 36RB-Low (0)     | 1902.5 (19125) | 23.62 | 22.33 | 21.66 |
|       |                  | 1880 (18900)   | 23.40 | 22.21 | 21.31 |
|       |                  | 1857.5 (18675) | 23.38 | 22.49 | 21.31 |
|       | 75RB (0)         | 1902.5 (19125) | 23.62 | 22.52 | 21.63 |
|       |                  | 1880 (18900)   | 23.59 | 22.55 | 21.52 |
|       |                  | 1857.5 (18675) | 23.57 | 22.36 | 21.37 |
| 20MHz | 1RB-High (99)    | 1900 (19100)   | 23.28 | 23.43 | 22.41 |

|  |                  |              |       |       |       |
|--|------------------|--------------|-------|-------|-------|
|  |                  | 1880 (18900) | 23.26 | 23.42 | 22.46 |
|  |                  | 1860 (18700) | 23.31 | 23.58 | 22.53 |
|  | 1RB-Middle (50)  | 1900 (19100) | 23.43 | 23.65 | 22.64 |
|  |                  | 1880 (18900) | 23.55 | 23.72 | 22.74 |
|  |                  | 1860 (18700) | 23.52 | 23.73 | 22.77 |
|  | 1RB-Low (0)      | 1900 (19100) | 23.26 | 23.43 | 22.52 |
|  |                  | 1880 (18900) | 23.32 | 23.46 | 22.53 |
|  |                  | 1860 (18700) | 23.35 | 23.56 | 22.55 |
|  | 50RB-High (50)   | 1900 (19100) | 23.46 | 22.44 | 21.47 |
|  |                  | 1880 (18900) | 23.48 | 22.45 | 21.48 |
|  |                  | 1860 (18700) | 23.53 | 22.51 | 21.56 |
|  | 50RB-Middle (25) | 1900 (19100) | 23.51 | 22.50 | 21.54 |
|  |                  | 1880 (18900) | 23.57 | 22.50 | 21.53 |
|  |                  | 1860 (18700) | 23.55 | 22.55 | 21.59 |
|  | 50RB-Low (0)     | 1900 (19100) | 23.47 | 22.45 | 21.49 |
|  |                  | 1880 (18900) | 23.37 | 22.37 | 21.39 |
|  |                  | 1860 (18700) | 23.47 | 22.48 | 21.49 |
|  | 100RB (0)        | 1900 (19100) | 23.44 | 22.43 | 21.47 |
|  |                  | 1880 (18900) | 23.51 | 22.39 | 21.42 |
|  |                  | 1860 (18700) | 23.49 | 22.44 | 21.51 |

**LTE Band2 ANT1 (DSI5)**

| BANDWIDTH | Number of RBs  | Frequency      | QPSK  | 16QAM | 64QAM |
|-----------|----------------|----------------|-------|-------|-------|
| 1.4MHz    | 1RB-High (5)   | 1909.3 (19193) | 17.36 | 17.51 | 17.49 |
|           |                | 1880 (18900)   | 17.35 | 17.51 | 17.49 |
|           |                | 1850.7 (18607) | 17.43 | 17.55 | 17.74 |
|           | 1RB-Middle (3) | 1909.3 (19193) | 17.48 | 18.01 | 17.75 |
|           |                | 1880 (18900)   | 17.37 | 17.63 | 17.83 |
|           |                | 1850.7 (18607) | 17.50 | 17.74 | 17.79 |
|           | 1RB-Low (0)    | 1909.3 (19193) | 17.22 | 17.71 | 17.34 |
|           |                | 1880 (18900)   | 17.14 | 17.50 | 17.41 |
|           |                | 1850.7 (18607) | 17.53 | 17.57 | 17.35 |
|           | 3RB-High (3)   | 1909.3 (19193) | 17.28 | 17.80 | 17.31 |
|           |                | 1880 (18900)   | 17.28 | 17.69 | 17.62 |
|           |                | 1850.7 (18607) | 17.43 | 17.64 | 17.44 |
|           | 3RB-Middle (1) | 1909.3 (19193) | 17.50 | 17.71 | 17.80 |
|           |                | 1880 (18900)   | 17.47 | 17.63 | 17.88 |
|           |                | 1850.7 (18607) | 17.55 | 17.81 | 17.89 |
|           | 3RB-Low (0)    | 1909.3 (19193) | 17.17 | 17.74 | 17.66 |
|           |                | 1880 (18900)   | 17.31 | 17.47 | 17.47 |

|      |                 |                |       |       |       |
|------|-----------------|----------------|-------|-------|-------|
|      |                 | 1850.7 (18607) | 17.19 | 17.62 | 17.42 |
|      | 6RB (0)         | 1909.3 (19193) | 17.60 | 17.52 | 17.63 |
|      |                 | 1880 (18900)   | 17.33 | 17.40 | 17.34 |
|      |                 | 1850.7 (18607) | 17.38 | 17.54 | 17.50 |
| 3MHz | 1RB-High (14)   | 1908.5 (19185) | 17.43 | 17.63 | 17.29 |
|      |                 | 1880 (18900)   | 17.39 | 17.64 | 17.29 |
|      |                 | 1851.5 (18615) | 17.17 | 17.71 | 17.59 |
|      | 1RB-Middle (7)  | 1908.5 (19185) | 17.50 | 17.84 | 17.73 |
|      |                 | 1880 (18900)   | 17.56 | 17.86 | 17.76 |
|      |                 | 1851.5 (18615) | 17.48 | 17.94 | 17.68 |
|      | 1RB-Low (0)     | 1908.5 (19185) | 17.14 | 17.61 | 17.57 |
|      |                 | 1880 (18900)   | 17.17 | 17.42 | 17.65 |
|      |                 | 1851.5 (18615) | 17.31 | 17.81 | 17.50 |
|      | 8RB-High (7)    | 1908.5 (19185) | 17.56 | 17.51 | 17.51 |
|      |                 | 1880 (18900)   | 17.60 | 17.34 | 17.41 |
|      |                 | 1851.5 (18615) | 17.37 | 17.41 | 17.60 |
|      | 8RB-Middle (4)  | 1908.5 (19185) | 17.41 | 17.64 | 17.37 |
|      |                 | 1880 (18900)   | 17.41 | 17.34 | 17.47 |
|      |                 | 1851.5 (18615) | 17.47 | 17.66 | 17.75 |
|      | 8RB-Low (0)     | 1908.5 (19185) | 17.53 | 17.39 | 17.54 |
|      |                 | 1880 (18900)   | 17.33 | 17.31 | 17.31 |
|      |                 | 1851.5 (18615) | 17.47 | 17.41 | 17.47 |
|      | 15RB (0)        | 1908.5 (19185) | 17.60 | 17.40 | 17.56 |
|      |                 | 1880 (18900)   | 17.30 | 17.56 | 17.62 |
|      |                 | 1851.5 (18615) | 17.37 | 17.40 | 17.47 |
| 5MHz | 1RB-High (24)   | 1907.5 (19175) | 17.36 | 17.62 | 17.28 |
|      |                 | 1880 (18900)   | 17.37 | 17.65 | 17.34 |
|      |                 | 1852.5 (18625) | 17.50 | 17.57 | 17.44 |
|      | 1RB-Middle (12) | 1907.5 (19175) | 17.55 | 18.00 | 17.79 |
|      |                 | 1880 (18900)   | 17.36 | 17.65 | 17.70 |
|      |                 | 1852.5 (18625) | 17.66 | 17.80 | 17.67 |
|      | 1RB-Low (0)     | 1907.5 (19175) | 17.41 | 17.64 | 17.39 |
|      |                 | 1880 (18900)   | 17.25 | 17.67 | 17.50 |
|      |                 | 1852.5 (18625) | 17.50 | 17.61 | 17.59 |
|      | 12RB-High (13)  | 1907.5 (19175) | 17.31 | 17.50 | 17.61 |
|      |                 | 1880 (18900)   | 17.34 | 17.38 | 17.50 |
|      |                 | 1852.5 (18625) | 17.42 | 17.57 | 17.56 |
|      | 12RB-Middle (6) | 1907.5 (19175) | 17.69 | 17.64 | 17.48 |
|      |                 | 1880 (18900)   | 17.69 | 17.66 | 17.42 |
|      |                 | 1852.5 (18625) | 17.44 | 17.75 | 17.45 |
|      | 12RB-Low (0)    | 1907.5 (19175) | 17.47 | 17.49 | 17.54 |

|                  |                  |                 |                |       |       |       |
|------------------|------------------|-----------------|----------------|-------|-------|-------|
|                  | 25RB (0)         | 1880 (18900)    | 17.48          | 17.22 | 17.26 |       |
|                  |                  | 1852.5 (18625)  | 17.37          | 17.38 | 17.41 |       |
|                  |                  | 1907.5 (19175)  | 17.31          | 17.54 | 17.55 |       |
|                  |                  | 1880 (18900)    | 17.26          | 17.29 | 17.58 |       |
|                  |                  | 1852.5 (18625)  | 17.62          | 17.37 | 17.67 |       |
| 10MHz            | 1RB-High (49)    | 1905 (19150)    | 17.25          | 17.79 | 17.62 |       |
|                  |                  | 1880 (18900)    | 17.18          | 17.71 | 17.59 |       |
|                  |                  | 1855 (18650)    | 17.50          | 17.75 | 17.59 |       |
|                  | 1RB-Middle (24)  | 1905 (19150)    | 17.42          | 17.91 | 17.77 |       |
|                  |                  | 1880 (18900)    | 17.49          | 17.87 | 17.82 |       |
|                  |                  | 1855 (18650)    | 17.57          | 18.00 | 17.80 |       |
|                  | 1RB-Low (0)      | 1905 (19150)    | 17.40          | 17.73 | 17.31 |       |
|                  |                  | 1880 (18900)    | 17.41          | 17.48 | 17.52 |       |
|                  |                  | 1855 (18650)    | 17.34          | 17.65 | 17.58 |       |
|                  | 25RB-High (25)   | 1905 (19150)    | 17.31          | 17.42 | 17.35 |       |
|                  |                  | 1880 (18900)    | 17.50          | 17.46 | 17.61 |       |
|                  |                  | 1855 (18650)    | 17.40          | 17.38 | 17.41 |       |
|                  | 25RB-Middle (12) | 1905 (19150)    | 17.37          | 17.36 | 17.61 |       |
|                  |                  | 1880 (18900)    | 17.56          | 17.58 | 17.70 |       |
|                  |                  | 1855 (18650)    | 17.48          | 17.52 | 17.43 |       |
|                  | 25RB-Low (0)     | 1905 (19150)    | 17.65          | 17.55 | 17.41 |       |
|                  |                  | 1880 (18900)    | 17.59          | 17.40 | 17.41 |       |
|                  |                  | 1855 (18650)    | 17.55          | 17.63 | 17.66 |       |
|                  | 50RB (0)         | 1905 (19150)    | 17.35          | 17.41 | 17.66 |       |
|                  |                  | 1880 (18900)    | 17.52          | 17.46 | 17.40 |       |
|                  |                  | 1855 (18650)    | 17.64          | 17.49 | 17.46 |       |
|                  | 15MHz            | 1RB-High (74)   | 1902.5 (19125) | 17.16 | 17.75 | 17.57 |
|                  |                  |                 | 1880 (18900)   | 17.26 | 17.61 | 17.61 |
|                  |                  |                 | 1857.5 (18675) | 17.14 | 17.63 | 17.71 |
|                  |                  | 1RB-Middle (37) | 1902.5 (19125) | 17.48 | 17.97 | 17.49 |
|                  |                  |                 | 1880 (18900)   | 17.58 | 17.85 | 17.80 |
|                  |                  |                 | 1857.5 (18675) | 17.54 | 17.76 | 17.60 |
| 1RB-Low (0)      |                  | 1902.5 (19125)  | 17.29          | 17.61 | 17.51 |       |
|                  |                  | 1880 (18900)    | 17.40          | 17.47 | 17.49 |       |
|                  |                  | 1857.5 (18675)  | 17.44          | 17.57 | 17.37 |       |
| 36RB-High (38)   |                  | 1902.5 (19125)  | 17.43          | 17.60 | 17.45 |       |
|                  |                  | 1880 (18900)    | 17.34          | 17.66 | 17.45 |       |
|                  |                  | 1857.5 (18675)  | 17.37          | 17.48 | 17.44 |       |
| 36RB-Middle (19) |                  | 1902.5 (19125)  | 17.66          | 17.59 | 17.35 |       |
|                  |                  | 1880 (18900)    | 17.67          | 17.57 | 17.51 |       |
|                  |                  | 1857.5 (18675)  | 17.50          | 17.52 | 17.55 |       |

|       |                  |                |       |       |       |
|-------|------------------|----------------|-------|-------|-------|
|       | 36RB-Low (0)     | 1902.5 (19125) | 17.47 | 17.33 | 17.41 |
|       |                  | 1880 (18900)   | 17.50 | 17.23 | 17.44 |
|       |                  | 1857.5 (18675) | 17.42 | 17.36 | 17.58 |
|       | 75RB (0)         | 1902.5 (19125) | 17.39 | 17.43 | 17.48 |
|       |                  | 1880 (18900)   | 17.55 | 17.36 | 17.29 |
|       |                  | 1857.5 (18675) | 17.67 | 17.42 | 17.58 |
| 20MHz | 1RB-High (99)    | 1900 (19100)   | 17.30 | 17.63 | 17.44 |
|       |                  | 1880 (18900)   | 17.28 | 17.59 | 17.44 |
|       |                  | 1860 (18700)   | 17.32 | 17.61 | 17.56 |
|       | 1RB-Middle (50)  | 1900 (19100)   | 17.42 | 17.87 | 17.66 |
|       |                  | 1880 (18900)   | 17.47 | 17.80 | 17.74 |
|       |                  | 1860 (18700)   | 17.54 | 17.83 | 17.77 |
|       | 1RB-Low (0)      | 1900 (19100)   | 17.28 | 17.64 | 17.49 |
|       |                  | 1880 (18900)   | 17.32 | 17.54 | 17.48 |
|       |                  | 1860 (18700)   | 17.36 | 17.75 | 17.53 |
|       | 50RB-High (50)   | 1900 (19100)   | 17.48 | 17.47 | 17.50 |
|       |                  | 1880 (18900)   | 17.51 | 17.49 | 17.52 |
|       |                  | 1860 (18700)   | 17.52 | 17.55 | 17.57 |
|       | 50RB-Middle (25) | 1900 (19100)   | 17.53 | 17.51 | 17.53 |
|       |                  | 1880 (18900)   | 17.53 | 17.51 | 17.54 |
|       |                  | 1860 (18700)   | 17.58 | 17.58 | 17.57 |
|       | 50RB-Low (0)     | 1900 (19100)   | 17.48 | 17.49 | 17.50 |
|       |                  | 1880 (18900)   | 17.42 | 17.40 | 17.41 |
|       |                  | 1860 (18700)   | 17.49 | 17.49 | 17.49 |
|       | 100RB (0)        | 1900 (19100)   | 17.47 | 17.49 | 17.48 |
|       |                  | 1880 (18900)   | 17.43 | 17.44 | 17.44 |
|       |                  | 1860 (18700)   | 17.49 | 17.49 | 17.51 |

**LTE Band7 ANT1 (DSI1)**

| BANDWIDTH | Number of RBs   | Frequency      | QPSK  | 16QAM | 64QAM |
|-----------|-----------------|----------------|-------|-------|-------|
| 5MHz      | 1RB-High (24)   | 2567.5 (21425) | 24.27 | 23.43 | 22.39 |
|           |                 | 2535 (21100)   | 24.23 | 23.49 | 22.43 |
|           |                 | 2502.5 (20775) | 24.21 | 23.28 | 22.30 |
|           | 1RB-Middle (12) | 2567.5 (21425) | 24.40 | 23.53 | 22.56 |
|           |                 | 2535 (21100)   | 24.35 | 23.46 | 22.52 |
|           |                 | 2502.5 (20775) | 24.31 | 23.41 | 22.45 |
|           | 1RB-Low (0)     | 2567.5 (21425) | 24.25 | 23.43 | 22.41 |
|           |                 | 2535 (21100)   | 24.23 | 23.37 | 22.37 |
|           |                 | 2502.5 (20775) | 24.19 | 23.42 | 22.34 |
|           | 12RB-High (13)  | 2567.5 (21425) | 23.30 | 22.27 | 21.38 |

|             |                  |                 |                |       |       |       |
|-------------|------------------|-----------------|----------------|-------|-------|-------|
|             | 12RB-Middle (6)  | 2535 (21100)    | 23.35          | 22.33 | 21.41 |       |
|             |                  | 2502.5 (20775)  | 23.33          | 22.30 | 21.33 |       |
|             |                  | 2567.5 (21425)  | 23.44          | 22.41 | 21.49 |       |
|             |                  | 2535 (21100)    | 23.39          | 22.38 | 21.44 |       |
|             |                  | 2502.5 (20775)  | 23.36          | 22.30 | 21.40 |       |
|             |                  | 2567.5 (21425)  | 23.43          | 22.38 | 21.46 |       |
|             | 12RB-Low (0)     | 2535 (21100)    | 23.35          | 22.30 | 21.42 |       |
|             |                  | 2502.5 (20775)  | 23.29          | 22.25 | 21.34 |       |
|             |                  | 2567.5 (21425)  | 23.43          | 22.41 | 21.42 |       |
|             | 25RB (0)         | 2535 (21100)    | 23.39          | 22.37 | 21.43 |       |
|             |                  | 2502.5 (20775)  | 23.35          | 22.34 | 21.37 |       |
|             |                  | 2567.5 (21425)  | 23.43          | 22.41 | 21.42 |       |
| 10MHz       | 1RB-High (49)    | 2565 (21400)    | 24.32          | 23.47 | 22.51 |       |
|             |                  | 2535 (21100)    | 24.28          | 23.49 | 22.45 |       |
|             |                  | 2505 (20800)    | 24.26          | 23.35 | 22.45 |       |
|             | 1RB-Middle (24)  | 2565 (21400)    | 24.35          | 23.49 | 22.52 |       |
|             |                  | 2535 (21100)    | 24.34          | 23.54 | 22.56 |       |
|             |                  | 2505 (20800)    | 24.29          | 23.42 | 22.45 |       |
|             | 1RB-Low (0)      | 2565 (21400)    | 24.30          | 23.54 | 22.48 |       |
|             |                  | 2535 (21100)    | 24.27          | 23.53 | 22.45 |       |
|             |                  | 2505 (20800)    | 24.24          | 23.32 | 22.37 |       |
|             | 25RB-High (25)   | 2565 (21400)    | 23.31          | 22.33 | 21.41 |       |
|             |                  | 2535 (21100)    | 23.39          | 22.38 | 21.43 |       |
|             |                  | 2505 (20800)    | 23.37          | 22.36 | 21.39 |       |
|             | 25RB-Middle (12) | 2565 (21400)    | 23.41          | 22.42 | 21.47 |       |
|             |                  | 2535 (21100)    | 23.40          | 22.43 | 21.43 |       |
|             |                  | 2505 (20800)    | 23.34          | 22.32 | 21.36 |       |
|             | 25RB-Low (0)     | 2565 (21400)    | 23.41          | 22.37 | 21.42 |       |
|             |                  | 2535 (21100)    | 23.38          | 22.36 | 21.42 |       |
|             |                  | 2505 (20800)    | 23.28          | 22.24 | 21.29 |       |
|             | 50RB (0)         | 2565 (21400)    | 23.39          | 22.33 | 21.41 |       |
|             |                  | 2535 (21100)    | 23.41          | 22.37 | 21.42 |       |
|             |                  | 2505 (20800)    | 23.35          | 22.31 | 21.36 |       |
|             | 15MHz            | 1RB-High (74)   | 2562.5 (21375) | 24.27 | 23.48 | 22.38 |
|             |                  |                 | 2535 (21100)   | 24.24 | 23.46 | 22.40 |
|             |                  |                 | 2507.5 (20825) | 24.20 | 23.43 | 22.31 |
|             |                  | 1RB-Middle (37) | 2562.5 (21375) | 24.39 | 23.48 | 22.50 |
|             |                  |                 | 2535 (21100)   | 24.35 | 23.55 | 22.48 |
|             |                  |                 | 2507.5 (20825) | 24.27 | 23.46 | 22.38 |
| 1RB-Low (0) |                  | 2562.5 (21375)  | 24.25          | 23.40 | 22.46 |       |
|             |                  | 2535 (21100)    | 24.25          | 23.43 | 22.45 |       |
|             |                  | 2507.5 (20825)  | 24.17          | 23.26 | 22.33 |       |



|       |                  |                |       |       |       |
|-------|------------------|----------------|-------|-------|-------|
|       | 36RB-High (38)   | 2562.5 (21375) | 23.32 | 22.30 | 21.38 |
|       |                  | 2535 (21100)   | 23.33 | 22.31 | 21.35 |
|       |                  | 2507.5 (20825) | 23.30 | 22.27 | 21.33 |
|       | 36RB-Middle (19) | 2562.5 (21375) | 23.39 | 22.38 | 21.41 |
|       |                  | 2535 (21100)   | 23.36 | 22.34 | 21.38 |
|       |                  | 2507.5 (20825) | 23.30 | 22.27 | 21.31 |
|       | 36RB-Low (0)     | 2562.5 (21375) | 23.34 | 22.29 | 21.37 |
|       |                  | 2535 (21100)   | 23.32 | 22.32 | 21.35 |
|       |                  | 2507.5 (20825) | 23.22 | 22.20 | 21.23 |
|       | 75RB (0)         | 2562.5 (21375) | 23.34 | 22.31 | 21.35 |
|       |                  | 2535 (21100)   | 23.35 | 22.33 | 21.36 |
|       |                  | 2507.5 (20825) | 23.30 | 22.21 | 21.25 |
| 20MHz | 1RB-High (99)    | 2560 (21350)   | 24.20 | 23.32 | 22.37 |
|       |                  | 2535 (21100)   | 24.20 | 23.34 | 22.41 |
|       |                  | 2510 (20850)   | 24.12 | 23.31 | 22.31 |
|       | 1RB-Middle (50)  | 2560 (21350)   | 24.35 | 23.50 | 22.53 |
|       |                  | 2535 (21100)   | 24.41 | 23.47 | 22.48 |
|       |                  | 2510 (20850)   | 24.25 | 23.47 | 22.42 |
|       | 1RB-Low (0)      | 2560 (21350)   | 24.22 | 23.34 | 22.32 |
|       |                  | 2535 (21100)   | 24.13 | 23.30 | 22.33 |
|       |                  | 2510 (20850)   | 24.07 | 23.21 | 22.16 |
|       | 50RB-High (50)   | 2560 (21350)   | 23.34 | 22.29 | 21.34 |
|       |                  | 2535 (21100)   | 23.37 | 22.33 | 21.38 |
|       |                  | 2510 (20850)   | 23.36 | 22.30 | 21.32 |
|       | 50RB-Middle (25) | 2560 (21350)   | 23.44 | 22.40 | 21.46 |
|       |                  | 2535 (21100)   | 23.45 | 22.41 | 21.43 |
|       |                  | 2510 (20850)   | 23.38 | 22.31 | 21.33 |
|       | 50RB-Low (0)     | 2560 (21350)   | 23.38 | 22.32 | 21.36 |
|       |                  | 2535 (21100)   | 23.35 | 22.31 | 21.33 |
|       |                  | 2510 (20850)   | 23.21 | 22.15 | 21.19 |
|       | 100RB (0)        | 2560 (21350)   | 23.34 | 22.29 | 21.33 |
|       |                  | 2535 (21100)   | 23.34 | 22.27 | 21.33 |
|       |                  | 2510 (20850)   | 23.25 | 22.19 | 21.24 |

**LTE Band7 ANT1 (DSI3)**

| BANDWIDTH | Number of RBs   | Frequency      | QPSK  | 16QAM | 64QAM |
|-----------|-----------------|----------------|-------|-------|-------|
| 5MHz      | 1RB-High (24)   | 2567.5 (21425) | 20.83 | 21.25 | 20.76 |
|           |                 | 2535 (21100)   | 20.50 | 20.89 | 20.93 |
|           |                 | 2502.5 (20775) | 20.65 | 20.66 | 20.74 |
|           | 1RB-Middle (12) | 2567.5 (21425) | 20.70 | 21.14 | 20.91 |

|                  |                 |                |                |       |       |       |
|------------------|-----------------|----------------|----------------|-------|-------|-------|
|                  | 1RB-Low (0)     | 2535 (21100)   | 21.09          | 20.76 | 20.75 |       |
|                  |                 | 2502.5 (20775) | 20.79          | 20.79 | 20.69 |       |
|                  |                 | 2567.5 (21425) | 20.90          | 20.94 | 20.79 |       |
|                  | 12RB-High (13)  | 2535 (21100)   | 20.45          | 20.80 | 20.81 |       |
|                  |                 | 2502.5 (20775) | 20.73          | 20.83 | 20.54 |       |
|                  |                 | 2567.5 (21425) | 20.86          | 20.78 | 20.86 |       |
|                  | 12RB-Middle (6) | 2535 (21100)   | 20.61          | 20.91 | 20.80 |       |
|                  |                 | 2502.5 (20775) | 20.58          | 20.77 | 20.63 |       |
|                  |                 | 2567.5 (21425) | 20.79          | 20.99 | 20.78 |       |
|                  | 12RB-Low (0)    | 2535 (21100)   | 20.93          | 20.57 | 20.93 |       |
|                  |                 | 2502.5 (20775) | 20.66          | 20.74 | 20.62 |       |
|                  |                 | 2567.5 (21425) | 20.85          | 20.81 | 20.74 |       |
|                  | 25RB (0)        | 2535 (21100)   | 20.50          | 20.73 | 20.83 |       |
|                  |                 | 2502.5 (20775) | 20.36          | 20.55 | 20.61 |       |
|                  |                 | 2567.5 (21425) | 20.71          | 20.59 | 20.63 |       |
|                  | 10MHz           | 1RB-High (49)  | 2535 (21100)   | 20.81 | 20.79 | 20.56 |
|                  |                 |                | 2502.5 (20775) | 20.40 | 20.61 | 20.63 |
|                  |                 |                | 2565 (21400)   | 20.72 | 21.21 | 21.05 |
| 1RB-Middle (24)  |                 | 2535 (21100)   | 20.67          | 20.63 | 20.57 |       |
|                  |                 | 2505 (20800)   | 20.31          | 20.84 | 20.58 |       |
|                  |                 | 2565 (21400)   | 20.74          | 21.08 | 20.81 |       |
| 1RB-Low (0)      |                 | 2535 (21100)   | 20.87          | 20.69 | 20.75 |       |
|                  |                 | 2505 (20800)   | 20.46          | 20.76 | 20.82 |       |
|                  |                 | 2565 (21400)   | 20.57          | 20.97 | 20.99 |       |
| 25RB-High (25)   |                 | 2535 (21100)   | 20.52          | 20.63 | 20.80 |       |
|                  |                 | 2505 (20800)   | 20.59          | 20.94 | 20.65 |       |
|                  |                 | 2565 (21400)   | 20.80          | 20.68 | 20.70 |       |
| 25RB-Middle (12) |                 | 2535 (21100)   | 20.88          | 20.83 | 20.92 |       |
|                  |                 | 2505 (20800)   | 20.46          | 20.53 | 20.59 |       |
|                  |                 | 2565 (21400)   | 20.79          | 20.69 | 21.03 |       |
| 25RB-Low (0)     |                 | 2535 (21100)   | 21.10          | 20.77 | 20.68 |       |
|                  |                 | 2505 (20800)   | 20.56          | 20.81 | 20.76 |       |
|                  |                 | 2565 (21400)   | 20.95          | 20.58 | 20.81 |       |
| 50RB (0)         | 2535 (21100)    | 20.57          | 20.80          | 20.76 |       |       |
|                  | 2505 (20800)    | 20.38          | 20.53          | 20.41 |       |       |
|                  | 2565 (21400)    | 20.99          | 20.64          | 20.67 |       |       |
| 15MHz            | 1RB-High (74)   | 2535 (21100)   | 20.65          | 20.85 | 20.70 |       |
|                  |                 | 2505 (20800)   | 20.41          | 20.42 | 20.57 |       |
|                  |                 | 2562.5 (21375) | 20.81          | 20.91 | 20.98 |       |
|                  |                 | 2535 (21100)   | 20.58          | 20.88 | 20.84 |       |
|                  |                 | 2507.5 (20825) | 20.46          | 20.67 | 20.65 |       |

|                  |                  |                |              |       |       |       |
|------------------|------------------|----------------|--------------|-------|-------|-------|
|                  | 1RB-Middle (37)  | 2562.5 (21375) | 20.83        | 21.04 | 21.04 |       |
|                  |                  | 2535 (21100)   | 20.77        | 20.78 | 21.00 |       |
|                  |                  | 2507.5 (20825) | 20.77        | 20.94 | 20.66 |       |
|                  | 1RB-Low (0)      | 2562.5 (21375) | 20.72        | 20.66 | 20.83 |       |
|                  |                  | 2535 (21100)   | 20.41        | 20.71 | 20.66 |       |
|                  |                  | 2507.5 (20825) | 20.49        | 20.97 | 20.77 |       |
|                  | 36RB-High (38)   | 2562.5 (21375) | 20.63        | 20.76 | 20.84 |       |
|                  |                  | 2535 (21100)   | 20.73        | 20.57 | 20.86 |       |
|                  |                  | 2507.5 (20825) | 20.48        | 20.60 | 20.44 |       |
|                  | 36RB-Middle (19) | 2562.5 (21375) | 20.76        | 20.79 | 20.73 |       |
|                  |                  | 2535 (21100)   | 21.12        | 20.54 | 20.66 |       |
|                  |                  | 2507.5 (20825) | 20.68        | 20.71 | 20.68 |       |
|                  | 36RB-Low (0)     | 2562.5 (21375) | 20.97        | 20.91 | 20.59 |       |
|                  |                  | 2535 (21100)   | 20.49        | 20.64 | 20.64 |       |
|                  |                  | 2507.5 (20825) | 20.70        | 20.45 | 20.55 |       |
|                  | 75RB (0)         | 2562.5 (21375) | 21.02        | 20.87 | 20.71 |       |
|                  |                  | 2535 (21100)   | 20.70        | 20.57 | 20.73 |       |
|                  |                  | 2507.5 (20825) | 20.42        | 20.61 | 20.35 |       |
|                  | 20MHz            | 1RB-High (99)  | 2560 (21350) | 20.65 | 21.07 | 20.90 |
|                  |                  |                | 2535 (21100) | 20.58 | 20.71 | 20.75 |
|                  |                  |                | 2510 (20850) | 20.49 | 20.69 | 20.63 |
| 1RB-Middle (50)  |                  | 2560 (21350)   | 20.87        | 21.07 | 20.92 |       |
|                  |                  | 2535 (21100)   | 20.91        | 20.84 | 20.87 |       |
|                  |                  | 2510 (20850)   | 20.62        | 20.89 | 20.75 |       |
| 1RB-Low (0)      |                  | 2560 (21350)   | 20.73        | 20.84 | 20.91 |       |
|                  |                  | 2535 (21100)   | 20.54        | 20.75 | 20.72 |       |
|                  |                  | 2510 (20850)   | 20.58        | 20.84 | 20.61 |       |
| 50RB-High (50)   |                  | 2560 (21350)   | 20.74        | 20.77 | 20.77 |       |
|                  |                  | 2535 (21100)   | 20.73        | 20.74 | 20.78 |       |
|                  |                  | 2510 (20850)   | 20.61        | 20.61 | 20.51 |       |
| 50RB-Middle (25) |                  | 2560 (21350)   | 20.87        | 20.85 | 20.90 |       |
|                  |                  | 2535 (21100)   | 20.96        | 20.71 | 20.79 |       |
|                  |                  | 2510 (20850)   | 20.68        | 20.64 | 20.65 |       |
| 50RB-Low (0)     |                  | 2560 (21350)   | 20.88        | 20.73 | 20.75 |       |
|                  |                  | 2535 (21100)   | 20.61        | 20.66 | 20.69 |       |
|                  |                  | 2510 (20850)   | 20.54        | 20.52 | 20.53 |       |
| 100RB (0)        |                  | 2560 (21350)   | 20.86        | 20.72 | 20.72 |       |
|                  |                  | 2535 (21100)   | 20.74        | 20.71 | 20.65 |       |
|                  |                  | 2510 (20850)   | 20.57        | 20.55 | 20.52 |       |

## LTE Band7 ANT1 (DSI4)

| BANDWIDTH        | Number of RBs   | Frequency      | QPSK         | 16QAM | 64QAM |       |
|------------------|-----------------|----------------|--------------|-------|-------|-------|
| 5MHz             | 1RB-High (24)   | 2567.5 (21425) | 22.32        | 22.22 | 22.20 |       |
|                  |                 | 2535 (21100)   | 22.27        | 22.34 | 22.38 |       |
|                  |                 | 2502.5 (20775) | 22.20        | 22.41 | 22.41 |       |
|                  | 1RB-Middle (12) | 2567.5 (21425) | 22.54        | 22.71 | 22.38 |       |
|                  |                 | 2535 (21100)   | 22.52        | 22.55 | 22.43 |       |
|                  |                 | 2502.5 (20775) | 22.43        | 22.37 | 22.32 |       |
|                  | 1RB-Low (0)     | 2567.5 (21425) | 22.34        | 22.24 | 22.26 |       |
|                  |                 | 2535 (21100)   | 22.08        | 22.37 | 22.39 |       |
|                  |                 | 2502.5 (20775) | 21.95        | 22.18 | 22.30 |       |
|                  | 12RB-High (13)  | 2567.5 (21425) | 22.17        | 22.31 | 21.49 |       |
|                  |                 | 2535 (21100)   | 22.58        | 22.33 | 21.17 |       |
|                  |                 | 2502.5 (20775) | 22.47        | 22.15 | 21.37 |       |
|                  | 12RB-Middle (6) | 2567.5 (21425) | 22.52        | 22.28 | 21.51 |       |
|                  |                 | 2535 (21100)   | 22.66        | 22.52 | 21.45 |       |
|                  |                 | 2502.5 (20775) | 22.42        | 22.21 | 21.31 |       |
|                  | 12RB-Low (0)    | 2567.5 (21425) | 22.33        | 22.44 | 21.49 |       |
|                  |                 | 2535 (21100)   | 22.37        | 22.37 | 21.28 |       |
|                  |                 | 2502.5 (20775) | 22.15        | 22.06 | 21.04 |       |
|                  | 25RB (0)        | 2567.5 (21425) | 22.41        | 22.40 | 21.40 |       |
|                  |                 | 2535 (21100)   | 22.32        | 22.28 | 21.37 |       |
|                  |                 | 2502.5 (20775) | 22.37        | 22.34 | 21.12 |       |
|                  | 10MHz           | 1RB-High (49)  | 2565 (21400) | 22.02 | 22.17 | 22.24 |
|                  |                 |                | 2535 (21100) | 22.16 | 22.17 | 22.41 |
|                  |                 |                | 2505 (20800) | 22.10 | 22.26 | 22.30 |
| 1RB-Middle (24)  |                 | 2565 (21400)   | 22.25        | 22.49 | 22.29 |       |
|                  |                 | 2535 (21100)   | 22.50        | 22.50 | 22.33 |       |
|                  |                 | 2505 (20800)   | 22.34        | 22.49 | 22.56 |       |
| 1RB-Low (0)      |                 | 2565 (21400)   | 22.47        | 22.42 | 22.18 |       |
|                  |                 | 2535 (21100)   | 22.10        | 22.35 | 22.50 |       |
|                  |                 | 2505 (20800)   | 22.01        | 22.09 | 22.31 |       |
| 25RB-High (25)   |                 | 2565 (21400)   | 22.24        | 22.16 | 21.55 |       |
|                  |                 | 2535 (21100)   | 22.63        | 22.57 | 21.40 |       |
|                  |                 | 2505 (20800)   | 22.40        | 22.11 | 21.23 |       |
| 25RB-Middle (12) |                 | 2565 (21400)   | 22.58        | 22.51 | 21.36 |       |
|                  |                 | 2535 (21100)   | 22.52        | 22.46 | 21.45 |       |
|                  |                 | 2505 (20800)   | 22.21        | 22.24 | 21.24 |       |
| 25RB-Low (0)     |                 | 2565 (21400)   | 22.22        | 22.52 | 21.26 |       |
|                  |                 | 2535 (21100)   | 22.58        | 22.23 | 21.41 |       |

|                  |                  |                |              |       |       |       |
|------------------|------------------|----------------|--------------|-------|-------|-------|
|                  |                  | 2505 (20800)   | 22.14        | 22.09 | 21.31 |       |
|                  | 50RB (0)         | 2565 (21400)   | 22.18        | 22.52 | 21.52 |       |
|                  |                  | 2535 (21100)   | 22.30        | 22.15 | 21.43 |       |
|                  |                  | 2505 (20800)   | 22.23        | 22.10 | 21.06 |       |
|                  |                  | 2562.5 (21375) | 21.99        | 22.21 | 22.45 |       |
| 15MHz            | 1RB-High (74)    | 2535 (21100)   | 22.32        | 22.12 | 22.28 |       |
|                  |                  | 2507.5 (20825) | 22.06        | 22.42 | 22.36 |       |
|                  |                  | 2562.5 (21375) | 22.40        | 22.50 | 22.25 |       |
|                  | 1RB-Middle (37)  | 2535 (21100)   | 22.59        | 22.51 | 22.60 |       |
|                  |                  | 2507.5 (20825) | 22.45        | 22.36 | 22.34 |       |
|                  |                  | 2562.5 (21375) | 22.48        | 22.51 | 22.17 |       |
|                  | 1RB-Low (0)      | 2535 (21100)   | 22.22        | 22.46 | 22.38 |       |
|                  |                  | 2507.5 (20825) | 22.11        | 22.18 | 22.01 |       |
|                  |                  | 2562.5 (21375) | 22.15        | 22.44 | 21.52 |       |
|                  | 36RB-High (38)   | 2535 (21100)   | 22.65        | 22.35 | 21.18 |       |
|                  |                  | 2507.5 (20825) | 22.47        | 22.44 | 21.33 |       |
|                  |                  | 2562.5 (21375) | 22.39        | 22.44 | 21.27 |       |
|                  | 36RB-Middle (19) | 2535 (21100)   | 22.47        | 22.42 | 21.39 |       |
|                  |                  | 2507.5 (20825) | 22.45        | 22.41 | 21.32 |       |
|                  |                  | 2562.5 (21375) | 22.39        | 22.52 | 21.40 |       |
|                  | 36RB-Low (0)     | 2535 (21100)   | 22.60        | 22.48 | 21.16 |       |
|                  |                  | 2507.5 (20825) | 22.17        | 22.06 | 21.08 |       |
|                  |                  | 2562.5 (21375) | 22.30        | 22.35 | 21.36 |       |
|                  | 75RB (0)         | 2535 (21100)   | 22.47        | 22.32 | 21.24 |       |
|                  |                  | 2507.5 (20825) | 22.38        | 22.21 | 21.39 |       |
|                  |                  | 2560 (21350)   | 22.15        | 22.32 | 22.38 |       |
|                  | 20MHz            | 1RB-High (99)  | 2535 (21100) | 22.19 | 22.30 | 22.36 |
|                  |                  |                | 2510 (20850) | 22.13 | 22.34 | 22.34 |
|                  |                  |                | 2560 (21350) | 22.36 | 22.60 | 22.37 |
| 1RB-Middle (50)  |                  | 2535 (21100)   | 22.50        | 22.54 | 22.47 |       |
|                  |                  | 2510 (20850)   | 22.29        | 22.44 | 22.43 |       |
|                  |                  | 2560 (21350)   | 22.30        | 22.33 | 22.34 |       |
| 1RB-Low (0)      |                  | 2535 (21100)   | 22.12        | 22.33 | 22.37 |       |
|                  |                  | 2510 (20850)   | 22.04        | 22.17 | 22.19 |       |
|                  |                  | 2560 (21350)   | 22.32        | 22.30 | 21.37 |       |
| 50RB-High (50)   |                  | 2535 (21100)   | 22.47        | 22.39 | 21.34 |       |
|                  |                  | 2510 (20850)   | 22.46        | 22.26 | 21.31 |       |
|                  |                  | 2560 (21350)   | 22.46        | 22.43 | 21.41 |       |
| 50RB-Middle (25) |                  | 2535 (21100)   | 22.55        | 22.46 | 21.39 |       |
|                  |                  | 2510 (20850)   | 22.36        | 22.33 | 21.30 |       |
|                  |                  | 2560 (21350)   | 22.33        | 22.39 | 21.33 |       |
| 50RB-Low (0)     |                  | 2560 (21350)   | 22.33        | 22.39 | 21.33 |       |

|  |           |              |       |       |       |
|--|-----------|--------------|-------|-------|-------|
|  | 100RB (0) | 2535 (21100) | 22.42 | 22.33 | 21.29 |
|  |           | 2510 (20850) | 22.22 | 22.15 | 21.14 |
|  |           | 2560 (21350) | 22.29 | 22.37 | 21.35 |
|  |           | 2535 (21100) | 22.29 | 22.25 | 21.36 |
|  |           | 2510 (20850) | 22.25 | 22.28 | 21.23 |

**LTE Band7 ANT1 (DSI5)**

| BANDWIDTH       | Number of RBs   | Frequency      | QPSK         | 16QAM | 64QAM |       |
|-----------------|-----------------|----------------|--------------|-------|-------|-------|
| 5MHz            | 1RB-High (24)   | 2567.5 (21425) | 20.13        | 20.53 | 20.26 |       |
|                 |                 | 2535 (21100)   | 19.93        | 20.21 | 20.17 |       |
|                 |                 | 2502.5 (20775) | 19.80        | 20.23 | 20.10 |       |
|                 | 1RB-Middle (12) | 2567.5 (21425) | 20.35        | 20.73 | 20.42 |       |
|                 |                 | 2535 (21100)   | 20.56        | 20.26 | 20.10 |       |
|                 |                 | 2502.5 (20775) | 19.97        | 20.40 | 20.22 |       |
|                 | 1RB-Low (0)     | 2567.5 (21425) | 19.95        | 20.37 | 20.41 |       |
|                 |                 | 2535 (21100)   | 19.83        | 20.38 | 20.07 |       |
|                 |                 | 2502.5 (20775) | 19.82        | 20.20 | 20.16 |       |
|                 | 12RB-High (13)  | 2567.5 (21425) | 20.10        | 20.35 | 20.20 |       |
|                 |                 | 2535 (21100)   | 20.34        | 20.00 | 20.14 |       |
|                 |                 | 2502.5 (20775) | 20.15        | 20.17 | 20.08 |       |
|                 | 12RB-Middle (6) | 2567.5 (21425) | 20.25        | 20.17 | 20.53 |       |
|                 |                 | 2535 (21100)   | 20.25        | 19.99 | 20.10 |       |
|                 |                 | 2502.5 (20775) | 20.12        | 20.24 | 20.10 |       |
|                 | 12RB-Low (0)    | 2567.5 (21425) | 20.40        | 20.29 | 20.35 |       |
|                 |                 | 2535 (21100)   | 19.96        | 19.93 | 20.23 |       |
|                 |                 | 2502.5 (20775) | 19.92        | 20.11 | 19.86 |       |
|                 | 25RB (0)        | 2567.5 (21425) | 20.41        | 20.21 | 20.30 |       |
|                 |                 | 2535 (21100)   | 19.98        | 20.21 | 20.21 |       |
|                 |                 | 2502.5 (20775) | 19.98        | 19.91 | 20.08 |       |
|                 | 10MHz           | 1RB-High (49)  | 2565 (21400) | 20.28 | 20.64 | 20.34 |
|                 |                 |                | 2535 (21100) | 20.15 | 20.27 | 20.33 |
|                 |                 |                | 2505 (20800) | 20.01 | 20.33 | 20.23 |
| 1RB-Middle (24) |                 | 2565 (21400)   | 20.20        | 20.71 | 20.52 |       |
|                 |                 | 2535 (21100)   | 20.48        | 20.35 | 20.45 |       |
|                 |                 | 2505 (20800)   | 19.99        | 20.45 | 20.18 |       |
| 1RB-Low (0)     |                 | 2565 (21400)   | 19.96        | 20.26 | 20.22 |       |
|                 |                 | 2535 (21100)   | 20.00        | 20.39 | 20.28 |       |
|                 |                 | 2505 (20800)   | 19.88        | 20.31 | 19.99 |       |
| 25RB-High (25)  |                 | 2565 (21400)   | 20.11        | 20.29 | 20.37 |       |
|                 |                 | 2535 (21100)   | 20.00        | 20.11 | 20.21 |       |

|                  |                  |                |              |       |       |       |
|------------------|------------------|----------------|--------------|-------|-------|-------|
|                  | 25RB-Middle (12) | 2505 (20800)   | 19.94        | 20.18 | 20.17 |       |
|                  |                  | 2565 (21400)   | 20.26        | 20.22 | 20.46 |       |
|                  |                  | 2535 (21100)   | 20.37        | 20.16 | 20.14 |       |
|                  | 25RB-Low (0)     | 2505 (20800)   | 20.33        | 20.07 | 20.26 |       |
|                  |                  | 2565 (21400)   | 20.43        | 20.21 | 20.28 |       |
|                  |                  | 2535 (21100)   | 20.27        | 20.04 | 20.14 |       |
|                  | 50RB (0)         | 2505 (20800)   | 20.02        | 19.83 | 20.03 |       |
|                  |                  | 2565 (21400)   | 20.40        | 20.10 | 20.24 |       |
|                  |                  | 2535 (21100)   | 20.30        | 20.11 | 20.02 |       |
|                  | 15MHz            | 1RB-High (74)  | 2505 (20800) | 20.02 | 20.01 | 20.08 |
|                  |                  |                | 2565 (21400) | 20.40 | 20.10 | 20.24 |
|                  |                  |                | 2535 (21100) | 20.30 | 20.11 | 20.02 |
| 1RB-Middle (37)  |                  | 2562.5 (21375) | 20.04        | 20.36 | 20.22 |       |
|                  |                  | 2535 (21100)   | 20.15        | 20.39 | 19.97 |       |
|                  |                  | 2507.5 (20825) | 19.79        | 20.20 | 20.16 |       |
| 1RB-Low (0)      |                  | 2562.5 (21375) | 20.27        | 20.69 | 20.34 |       |
|                  |                  | 2535 (21100)   | 20.55        | 20.41 | 20.13 |       |
|                  |                  | 2507.5 (20825) | 19.96        | 20.49 | 20.34 |       |
| 36RB-High (38)   |                  | 2562.5 (21375) | 20.16        | 20.26 | 20.32 |       |
|                  |                  | 2535 (21100)   | 19.87        | 20.36 | 20.10 |       |
|                  |                  | 2507.5 (20825) | 20.06        | 20.21 | 20.20 |       |
| 36RB-Middle (19) |                  | 2562.5 (21375) | 20.16        | 20.25 | 20.08 |       |
|                  |                  | 2535 (21100)   | 20.12        | 20.20 | 20.19 |       |
|                  |                  | 2507.5 (20825) | 20.17        | 20.22 | 19.91 |       |
| 36RB-Low (0)     |                  | 2562.5 (21375) | 20.33        | 20.51 | 20.49 |       |
|                  |                  | 2535 (21100)   | 20.23        | 20.10 | 20.28 |       |
|                  |                  | 2507.5 (20825) | 20.16        | 20.06 | 20.33 |       |
| 75RB (0)         |                  | 2562.5 (21375) | 20.23        | 20.09 | 20.38 |       |
|                  |                  | 2535 (21100)   | 20.01        | 20.11 | 20.24 |       |
|                  |                  | 2507.5 (20825) | 19.83        | 19.84 | 20.05 |       |
| 20MHz            | 1RB-High (99)    | 2562.5 (21375) | 20.43        | 20.39 | 20.06 |       |
|                  |                  | 2535 (21100)   | 20.28        | 20.25 | 20.03 |       |
|                  |                  | 2507.5 (20825) | 20.07        | 20.14 | 19.99 |       |
|                  | 1RB-Middle (50)  | 2560 (21350)   | 20.20        | 20.52 | 20.35 |       |
|                  |                  | 2535 (21100)   | 20.07        | 20.24 | 20.15 |       |
|                  |                  | 2510 (20850)   | 19.92        | 20.18 | 20.05 |       |
|                  | 1RB-Low (0)      | 2560 (21350)   | 20.33        | 20.57 | 20.43 |       |
|                  |                  | 2535 (21100)   | 20.39        | 20.36 | 20.28 |       |
|                  |                  | 2510 (20850)   | 20.12        | 20.40 | 20.20 |       |
|                  | 50RB-High (50)   | 2560 (21350)   | 20.13        | 20.35 | 20.33 |       |
|                  |                  | 2535 (21100)   | 20.01        | 20.25 | 20.15 |       |
|                  |                  | 2510 (20850)   | 20.00        | 20.26 | 20.12 |       |
|                  |                  | 2560 (21350)   | 20.26        | 20.23 | 20.26 |       |

|  |                  |              |       |       |       |
|--|------------------|--------------|-------|-------|-------|
|  | 50RB-Middle (25) | 2535 (21100) | 20.16 | 20.17 | 20.19 |
|  |                  | 2510 (20850) | 20.07 | 20.04 | 20.06 |
|  |                  | 2560 (21350) | 20.38 | 20.35 | 20.37 |
|  |                  | 2535 (21100) | 20.40 | 20.16 | 20.21 |
|  |                  | 2510 (20850) | 20.17 | 20.17 | 20.16 |
|  |                  | 2560 (21350) | 20.28 | 20.24 | 20.25 |
|  | 50RB-Low (0)     | 2535 (21100) | 20.12 | 20.11 | 20.12 |
|  |                  | 2510 (20850) | 20.00 | 19.95 | 19.97 |
|  |                  | 2560 (21350) | 20.26 | 20.21 | 20.24 |
|  | 100RB (0)        | 2535 (21100) | 20.14 | 20.13 | 20.14 |
|  |                  | 2510 (20850) | 20.04 | 20.00 | 20.00 |
|  |                  | 2560 (21350) | 20.26 | 20.21 | 20.24 |

**LTE Band12 ANT1 (DSI1/3/4/5)**

| BANDWIDTH | Number of RBs  | Frequency     | QPSK  | 16QAM | 64QAM |
|-----------|----------------|---------------|-------|-------|-------|
| 1.4MHz    | 1RB-High (5)   | 715.3 (23173) | 24.04 | 22.95 | 22.06 |
|           |                | 707.5 (23095) | 23.89 | 23.18 | 22.12 |
|           |                | 699.7 (23017) | 23.90 | 23.08 | 22.14 |
|           | 1RB-Middle (3) | 715.3 (23173) | 24.11 | 22.94 | 22.09 |
|           |                | 707.5 (23095) | 23.93 | 23.17 | 22.26 |
|           |                | 699.7 (23017) | 23.96 | 23.24 | 22.20 |
|           | 1RB-Low (0)    | 715.3 (23173) | 23.97 | 22.96 | 22.04 |
|           |                | 707.5 (23095) | 23.89 | 23.10 | 22.24 |
|           |                | 699.7 (23017) | 23.88 | 23.16 | 22.21 |
|           | 3RB-High (3)   | 715.3 (23173) | 24.14 | 22.82 | 22.09 |
|           |                | 707.5 (23095) | 23.99 | 22.93 | 22.19 |
|           |                | 699.7 (23017) | 24.03 | 22.95 | 22.21 |
|           | 3RB-Middle (1) | 715.3 (23173) | 24.18 | 22.85 | 22.13 |
|           |                | 707.5 (23095) | 23.99 | 23.02 | 22.22 |
|           |                | 699.7 (23017) | 24.02 | 23.01 | 22.28 |
|           | 3RB-Low (0)    | 715.3 (23173) | 24.12 | 22.90 | 22.09 |
|           |                | 707.5 (23095) | 23.99 | 22.97 | 22.19 |
|           |                | 699.7 (23017) | 24.02 | 23.00 | 22.23 |
|           | 6RB (0)        | 715.3 (23173) | 23.20 | 22.13 | 21.11 |
|           |                | 707.5 (23095) | 23.10 | 22.20 | 21.11 |
|           |                | 699.7 (23017) | 23.14 | 22.22 | 21.16 |
| 3MHz      | 1RB-High (14)  | 714.5 (23165) | 23.94 | 22.86 | 21.93 |
|           |                | 707.5 (23095) | 23.78 | 23.09 | 22.03 |
|           |                | 700.5 (23025) | 23.77 | 22.98 | 22.11 |
|           | 1RB-Middle (7) | 714.5 (23165) | 23.99 | 22.97 | 22.08 |
|           |                | 707.5 (23095) | 23.91 | 23.22 | 22.21 |



|                 |                 |               |               |       |       |       |
|-----------------|-----------------|---------------|---------------|-------|-------|-------|
|                 |                 | 700.5 (23025) | 23.94         | 23.21 | 22.20 |       |
|                 | 1RB-Low (0)     | 714.5 (23165) | 23.78         | 22.92 | 22.03 |       |
|                 |                 | 707.5 (23095) | 23.77         | 23.04 | 22.04 |       |
|                 |                 | 700.5 (23025) | 23.79         | 23.12 | 22.07 |       |
|                 | 8RB-High (7)    | 714.5 (23165) | 23.03         | 21.94 | 21.02 |       |
|                 |                 | 707.5 (23095) | 22.99         | 22.04 | 21.08 |       |
|                 |                 | 700.5 (23025) | 23.04         | 22.08 | 21.11 |       |
|                 | 8RB-Middle (4)  | 714.5 (23165) | 23.09         | 22.08 | 21.11 |       |
|                 |                 | 707.5 (23095) | 23.07         | 22.10 | 21.11 |       |
|                 |                 | 700.5 (23025) | 23.08         | 22.14 | 21.18 |       |
|                 | 8RB-Low (0)     | 714.5 (23165) | 23.02         | 22.05 | 21.11 |       |
|                 |                 | 707.5 (23095) | 23.03         | 22.11 | 21.09 |       |
|                 |                 | 700.5 (23025) | 23.05         | 22.11 | 21.12 |       |
|                 | 15RB (0)        | 714.5 (23165) | 23.06         | 22.00 | 21.03 |       |
|                 |                 | 707.5 (23095) | 23.02         | 22.04 | 21.01 |       |
|                 |                 | 700.5 (23025) | 23.06         | 22.05 | 21.04 |       |
| 5MHz            | 1RB-High (24)   | 713.5 (23155) | 24.13         | 23.03 | 21.99 |       |
|                 |                 | 707.5 (23095) | 24.02         | 23.32 | 22.28 |       |
|                 |                 | 701.5 (23035) | 24.01         | 23.17 | 22.21 |       |
|                 | 1RB-Middle (12) | 713.5 (23155) | 24.15         | 23.20 | 22.30 |       |
|                 |                 | 707.5 (23095) | 24.12         | 23.47 | 22.39 |       |
|                 |                 | 701.5 (23035) | 24.14         | 23.40 | 22.38 |       |
|                 | 1RB-Low (0)     | 713.5 (23155) | 24.03         | 23.32 | 22.24 |       |
|                 |                 | 707.5 (23095) | 24.08         | 23.36 | 22.30 |       |
|                 |                 | 701.5 (23035) | 24.05         | 23.31 | 22.27 |       |
|                 | 12RB-High (13)  | 713.5 (23155) | 23.01         | 21.94 | 21.06 |       |
|                 |                 | 707.5 (23095) | 23.12         | 22.11 | 21.19 |       |
|                 |                 | 701.5 (23035) | 23.14         | 22.14 | 21.22 |       |
|                 | 12RB-Middle (6) | 713.5 (23155) | 23.15         | 22.14 | 21.19 |       |
|                 |                 | 707.5 (23095) | 23.18         | 22.18 | 21.22 |       |
|                 |                 | 701.5 (23035) | 23.18         | 22.20 | 21.26 |       |
|                 | 12RB-Low (0)    | 713.5 (23155) | 23.16         | 22.12 | 21.19 |       |
|                 |                 | 707.5 (23095) | 23.15         | 22.16 | 21.22 |       |
|                 |                 | 701.5 (23035) | 23.13         | 22.12 | 21.20 |       |
|                 | 25RB (0)        | 713.5 (23155) | 23.17         | 22.13 | 21.16 |       |
|                 |                 | 707.5 (23095) | 23.16         | 22.18 | 21.20 |       |
|                 |                 | 701.5 (23035) | 23.16         | 22.20 | 21.20 |       |
|                 | 10MHz           | 1RB-High (49) | 711 (23130)   | 24.18 | 23.16 | 22.11 |
|                 |                 |               | 707.5 (23095) | 24.15 | 23.34 | 22.32 |
|                 |                 |               | 704 (23060)   | 24.11 | 23.35 | 22.36 |
| 1RB-Middle (24) |                 | 711 (23130)   | 24.19         | 23.40 | 22.38 |       |

|  |                  |               |       |       |       |
|--|------------------|---------------|-------|-------|-------|
|  | 1RB-Low (0)      | 707.5 (23095) | 24.21 | 23.47 | 22.43 |
|  |                  | 704 (23060)   | 24.20 | 23.34 | 22.41 |
|  |                  | 711 (23130)   | 24.19 | 23.40 | 22.42 |
|  | 25RB-High (25)   | 707.5 (23095) | 24.18 | 23.45 | 22.40 |
|  |                  | 704 (23060)   | 24.19 | 23.41 | 22.31 |
|  |                  | 711 (23130)   | 23.10 | 22.09 | 21.14 |
|  | 25RB-Middle (12) | 707.5 (23095) | 23.14 | 22.14 | 21.18 |
|  |                  | 704 (23060)   | 23.14 | 22.16 | 21.20 |
|  |                  | 711 (23130)   | 23.24 | 22.23 | 21.27 |
|  | 25RB-Low (0)     | 707.5 (23095) | 23.25 | 22.26 | 21.28 |
|  |                  | 704 (23060)   | 23.23 | 22.25 | 21.27 |
|  |                  | 711 (23130)   | 23.19 | 22.20 | 21.21 |
|  | 50RB (0)         | 707.5 (23095) | 23.17 | 22.15 | 21.18 |
|  |                  | 704 (23060)   | 23.13 | 22.14 | 21.17 |
|  |                  | 711 (23130)   | 23.17 | 22.13 | 21.16 |
|  |                  | 707.5 (23095) | 23.20 | 22.16 | 21.19 |
|  |                  | 704 (23060)   | 23.17 | 22.15 | 21.22 |

**LTE Band13 ANT1 (DS11/3/4/5)**

| BANDWIDTH | Number of RBs   | Frequency     | QPSK  | 16QAM | 64QAM |
|-----------|-----------------|---------------|-------|-------|-------|
| 5MHz      | 1RB-High (24)   | 784.5 (23255) | 24.14 | 23.28 | 22.32 |
|           |                 | 782 (23230)   | 24.09 | 23.34 | 22.36 |
|           |                 | 779.5 (23205) | 24.12 | 23.27 | 22.36 |
|           | 1RB-Middle (12) | 784.5 (23255) | 24.26 | 23.54 | 22.49 |
|           |                 | 782 (23230)   | 24.26 | 23.57 | 22.52 |
|           |                 | 779.5 (23205) | 24.26 | 23.41 | 22.48 |
|           | 1RB-Low (0)     | 784.5 (23255) | 24.15 | 23.42 | 22.38 |
|           |                 | 782 (23230)   | 24.14 | 23.43 | 22.35 |
|           |                 | 779.5 (23205) | 24.18 | 23.38 | 22.37 |
|           | 12RB-High (13)  | 784.5 (23255) | 23.22 | 22.23 | 21.28 |
|           |                 | 782 (23230)   | 23.24 | 22.22 | 21.28 |
|           |                 | 779.5 (23205) | 23.21 | 22.20 | 21.27 |
|           | 12RB-Middle (6) | 784.5 (23255) | 23.24 | 22.25 | 21.32 |
|           |                 | 782 (23230)   | 23.28 | 22.28 | 21.34 |
|           |                 | 779.5 (23205) | 23.27 | 22.29 | 21.33 |
|           | 12RB-Low (0)    | 784.5 (23255) | 23.19 | 22.17 | 21.22 |
|           |                 | 782 (23230)   | 23.22 | 22.22 | 21.26 |
|           |                 | 779.5 (23205) | 23.17 | 22.14 | 21.23 |
|           | 25RB (0)        | 784.5 (23255) | 23.21 | 22.22 | 21.24 |
|           |                 | 782 (23230)   | 23.25 | 22.27 | 21.28 |

|       |                  |               |       |       |       |
|-------|------------------|---------------|-------|-------|-------|
|       |                  | 779.5 (23205) | 23.23 | 22.24 | 21.28 |
| 10MHz | 1RB-High (49)    | 782 (23230)   | 24.19 | 23.48 | 22.42 |
|       | 1RB-Middle (24)  | 782 (23230)   | 24.27 | 23.56 | 22.44 |
|       | 1RB-Low (0)      | 782 (23230)   | 24.28 | 23.46 | 22.49 |
|       | 25RB-High (25)   | 782 (23230)   | 23.20 | 22.24 | 21.24 |
|       | 25RB-Middle (12) | 782 (23230)   | 23.31 | 22.31 | 21.36 |
|       | 25RB-Low (0)     | 782 (23230)   | 23.17 | 22.17 | 21.20 |
|       | 50RB (0)         | 782 (23230)   | 23.23 | 22.23 | 21.25 |

**LTE Band26 ANT1 (DSI1/3/4/5)**

| BANDWIDTH   | Number of RBs  | Frequency     | QPSK  | 16QAM | 64QAM |
|-------------|----------------|---------------|-------|-------|-------|
| 1.4MHz      | 1RB-High (5)   | 848.3 (27033) | 23.95 | 23.21 | 22.19 |
|             |                | 831.5 (26865) | 23.99 | 23.19 | 22.31 |
|             |                | 814.7 (26697) | 23.95 | 23.18 | 22.30 |
|             | 1RB-Middle (3) | 848.3 (27033) | 24.03 | 23.23 | 22.32 |
|             |                | 831.5 (26865) | 24.06 | 23.30 | 22.27 |
|             |                | 814.7 (26697) | 24.06 | 23.36 | 22.31 |
|             | 1RB-Low (0)    | 848.3 (27033) | 23.96 | 23.18 | 22.29 |
|             |                | 831.5 (26865) | 23.98 | 23.24 | 22.30 |
|             |                | 814.7 (26697) | 23.98 | 23.14 | 22.29 |
|             | 3RB-High (3)   | 848.3 (27033) | 24.05 | 22.97 | 22.30 |
|             |                | 831.5 (26865) | 24.09 | 23.00 | 22.27 |
|             |                | 814.7 (26697) | 24.10 | 23.09 | 22.33 |
|             | 3RB-Middle (1) | 848.3 (27033) | 24.08 | 23.09 | 22.31 |
|             |                | 831.5 (26865) | 24.13 | 23.00 | 22.30 |
|             |                | 814.7 (26697) | 24.10 | 22.99 | 22.36 |
|             | 3RB-Low (0)    | 848.3 (27033) | 24.02 | 22.98 | 22.25 |
|             |                | 831.5 (26865) | 24.09 | 22.99 | 22.28 |
|             |                | 814.7 (26697) | 24.08 | 23.09 | 22.30 |
|             | 6RB (0)        | 848.3 (27033) | 23.21 | 22.29 | 21.25 |
|             |                | 831.5 (26865) | 23.20 | 22.29 | 21.26 |
|             |                | 814.7 (26697) | 23.23 | 22.29 | 21.28 |
| 3MHz        | 1RB-High (14)  | 847.5 (27025) | 23.82 | 23.10 | 22.16 |
|             |                | 831.5 (26865) | 23.87 | 23.00 | 22.22 |
|             |                | 815.5 (26705) | 23.81 | 23.11 | 22.19 |
|             | 1RB-Middle (7) | 847.5 (27025) | 23.97 | 23.37 | 22.32 |
|             |                | 831.5 (26865) | 24.00 | 23.30 | 22.28 |
|             |                | 815.5 (26705) | 23.92 | 23.36 | 22.35 |
| 1RB-Low (0) | 847.5 (27025)  | 23.86         | 23.17 | 22.23 |       |
|             | 831.5 (26865)  | 23.87         | 23.14 | 22.19 |       |

|                 |                 |               |               |       |       |       |
|-----------------|-----------------|---------------|---------------|-------|-------|-------|
|                 |                 | 815.5 (26705) | 23.90         | 23.05 | 22.14 |       |
|                 | 8RB-High (7)    | 847.5 (27025) | 23.12         | 22.22 | 21.20 |       |
|                 |                 | 831.5 (26865) | 23.10         | 22.19 | 21.18 |       |
|                 |                 | 815.5 (26705) | 23.02         | 22.21 | 21.22 |       |
|                 | 8RB-Middle (4)  | 847.5 (27025) | 23.17         | 22.28 | 21.27 |       |
|                 |                 | 831.5 (26865) | 23.16         | 22.22 | 21.24 |       |
|                 |                 | 815.5 (26705) | 23.11         | 22.26 | 21.23 |       |
|                 | 8RB-Low (0)     | 847.5 (27025) | 23.12         | 22.24 | 21.25 |       |
|                 |                 | 831.5 (26865) | 23.07         | 22.17 | 21.19 |       |
|                 |                 | 815.5 (26705) | 23.03         | 22.16 | 21.18 |       |
|                 | 15RB (0)        | 847.5 (27025) | 23.13         | 22.16 | 21.18 |       |
|                 |                 | 831.5 (26865) | 23.09         | 22.15 | 21.15 |       |
|                 |                 | 815.5 (26705) | 23.05         | 22.13 | 21.16 |       |
| 5MHz            | 1RB-High (24)   | 846.5 (27015) | 24.03         | 23.30 | 22.29 |       |
|                 |                 | 831.5 (26865) | 24.07         | 23.32 | 22.34 |       |
|                 |                 | 816.5 (26715) | 24.06         | 23.32 | 22.33 |       |
|                 | 1RB-Middle (12) | 846.5 (27015) | 24.24         | 23.41 | 22.47 |       |
|                 |                 | 831.5 (26865) | 24.20         | 23.44 | 22.43 |       |
|                 |                 | 816.5 (26715) | 24.22         | 23.35 | 22.39 |       |
|                 | 1RB-Low (0)     | 846.5 (27015) | 24.07         | 23.36 | 22.32 |       |
|                 |                 | 831.5 (26865) | 24.10         | 23.33 | 22.37 |       |
|                 |                 | 816.5 (26715) | 24.10         | 23.34 | 22.26 |       |
|                 | 12RB-High (13)  | 846.5 (27015) | 23.16         | 22.15 | 21.20 |       |
|                 |                 | 831.5 (26865) | 23.16         | 22.18 | 21.24 |       |
|                 |                 | 816.5 (26715) | 23.18         | 22.20 | 21.26 |       |
|                 | 12RB-Middle (6) | 846.5 (27015) | 23.25         | 22.23 | 21.34 |       |
|                 |                 | 831.5 (26865) | 23.26         | 22.25 | 21.30 |       |
|                 |                 | 816.5 (26715) | 23.23         | 22.21 | 21.28 |       |
|                 | 12RB-Low (0)    | 846.5 (27015) | 23.21         | 22.23 | 21.29 |       |
|                 |                 | 831.5 (26865) | 23.18         | 22.17 | 21.27 |       |
|                 |                 | 816.5 (26715) | 23.12         | 22.12 | 21.19 |       |
|                 | 25RB (0)        | 846.5 (27015) | 23.24         | 22.25 | 21.27 |       |
|                 |                 | 831.5 (26865) | 23.20         | 22.21 | 21.25 |       |
|                 |                 | 816.5 (26715) | 23.20         | 22.21 | 21.23 |       |
|                 | 10MHz           | 1RB-High (49) | 844 (26990)   | 24.14 | 23.45 | 22.43 |
|                 |                 |               | 831.5 (26865) | 24.18 | 23.38 | 22.39 |
|                 |                 |               | 819 (26740)   | 24.19 | 23.37 | 22.40 |
| 1RB-Middle (24) |                 | 844 (26990)   | 24.24         | 23.49 | 22.50 |       |
|                 |                 | 831.5 (26865) | 24.24         | 23.38 | 22.45 |       |
|                 |                 | 819 (26740)   | 24.20         | 23.43 | 22.46 |       |
| 1RB-Low (0)     | 844 (26990)     | 24.17         | 23.42         | 22.37 |       |       |

|       |                  |               |       |       |       |
|-------|------------------|---------------|-------|-------|-------|
|       |                  | 831.5 (26865) | 24.19 | 23.40 | 22.40 |
|       |                  | 819 (26740)   | 24.21 | 23.49 | 22.37 |
|       |                  | 844 (26990)   | 23.11 | 22.14 | 21.16 |
|       | 25RB-High (25)   | 831.5 (26865) | 23.18 | 22.20 | 21.23 |
|       |                  | 819 (26740)   | 23.20 | 22.23 | 21.24 |
|       |                  | 844 (26990)   | 23.26 | 22.25 | 21.31 |
|       | 25RB-Middle (12) | 831.5 (26865) | 23.29 | 22.28 | 21.30 |
|       |                  | 819 (26740)   | 23.26 | 22.25 | 21.30 |
|       |                  | 844 (26990)   | 23.23 | 22.23 | 21.26 |
|       | 25RB-Low (0)     | 831.5 (26865) | 23.21 | 22.22 | 21.24 |
|       |                  | 819 (26740)   | 23.10 | 22.11 | 21.14 |
|       |                  | 844 (26990)   | 23.19 | 22.20 | 21.21 |
|       | 50RB (0)         | 831.5 (26865) | 23.23 | 22.23 | 21.25 |
|       |                  | 819 (26740)   | 23.22 | 22.19 | 21.19 |
|       |                  | 841.5 (26965) | 24.10 | 23.42 | 22.35 |
| 15MHz | 1RB-High (74)    | 831.5 (26865) | 24.12 | 23.36 | 22.28 |
|       |                  | 821.5 (26765) | 24.16 | 23.43 | 22.40 |
|       |                  | 841.5 (26965) | 24.23 | 23.40 | 22.41 |
|       | 1RB-Middle (37)  | 831.5 (26865) | 24.25 | 23.38 | 22.46 |
|       |                  | 821.5 (26765) | 24.21 | 23.51 | 22.44 |
|       |                  | 841.5 (26965) | 24.16 | 23.44 | 22.43 |
|       | 1RB-Low (0)      | 831.5 (26865) | 24.14 | 23.42 | 22.30 |
|       |                  | 821.5 (26765) | 24.16 | 23.39 | 22.33 |
|       |                  | 841.5 (26965) | 23.19 | 22.20 | 21.27 |
|       | 36RB-High (38)   | 831.5 (26865) | 23.23 | 22.23 | 21.28 |
|       |                  | 821.5 (26765) | 23.23 | 22.21 | 21.29 |
|       |                  | 841.5 (26965) | 23.26 | 22.24 | 21.31 |
|       | 36RB-Middle (19) | 831.5 (26865) | 23.39 | 22.24 | 21.30 |
|       |                  | 821.5 (26765) | 23.24 | 22.23 | 21.30 |
|       |                  | 841.5 (26965) | 23.24 | 22.25 | 21.31 |
|       | 36RB-Low (0)     | 831.5 (26865) | 23.21 | 22.19 | 21.28 |
|       |                  | 821.5 (26765) | 23.15 | 22.16 | 21.22 |
|       |                  | 841.5 (26965) | 23.25 | 22.24 | 21.28 |
|       | 75RB (0)         | 831.5 (26865) | 23.24 | 22.23 | 21.26 |
|       |                  | 821.5 (26765) | 23.22 | 22.21 | 21.24 |

**LTE Band41 ANT1 (DSI1)**

| BANDWIDTH | Number of RBs | Frequency      | QPSK  | 16QAM | 64QAM |
|-----------|---------------|----------------|-------|-------|-------|
| 5MHz      | 1RB-High (24) | 2687.5 (41565) | 24.05 | 23.22 | 22.08 |
|           |               | 2640.3(41093)  | 24.08 | 23.28 | 22.13 |

|                |                 |                |       |       |       |
|----------------|-----------------|----------------|-------|-------|-------|
|                |                 | 2593 (40620)   | 24.04 | 23.24 | 22.06 |
|                |                 | 2545.8(40148)  | 24.20 | 23.37 | 22.22 |
|                |                 | 2498.5 (39675) | 24.09 | 23.21 | 22.08 |
|                | 1RB-Middle (12) | 2687.5 (41565) | 24.21 | 23.36 | 22.22 |
|                |                 | 2640.3(41093)  | 24.23 | 23.40 | 22.29 |
|                |                 | 2593 (40620)   | 24.20 | 23.38 | 22.22 |
|                |                 | 2545.8(40148)  | 24.38 | 23.51 | 22.35 |
|                |                 | 2498.5 (39675) | 24.24 | 23.30 | 22.17 |
|                | 1RB-Low (0)     | 2687.5 (41565) | 24.07 | 23.20 | 22.10 |
|                |                 | 2640.3(41093)  | 24.10 | 23.30 | 22.16 |
|                |                 | 2593 (40620)   | 24.08 | 23.25 | 22.10 |
|                |                 | 2545.8(40148)  | 24.20 | 23.34 | 22.21 |
|                |                 | 2498.5 (39675) | 24.10 | 23.17 | 22.04 |
|                | 12RB-High (13)  | 2687.5 (41565) | 23.18 | 22.17 | 21.26 |
|                |                 | 2640.3(41093)  | 23.21 | 22.20 | 21.29 |
|                |                 | 2593 (40620)   | 23.16 | 22.17 | 21.26 |
|                |                 | 2545.8(40148)  | 23.34 | 22.32 | 21.40 |
|                |                 | 2498.5 (39675) | 23.25 | 22.20 | 21.27 |
|                | 12RB-Middle (6) | 2687.5 (41565) | 23.27 | 22.26 | 21.33 |
|                |                 | 2640.3(41093)  | 23.25 | 22.27 | 21.34 |
|                |                 | 2593 (40620)   | 23.22 | 22.22 | 21.29 |
|                |                 | 2545.8(40148)  | 23.40 | 22.37 | 21.45 |
|                |                 | 2498.5 (39675) | 23.30 | 22.22 | 21.30 |
|                | 12RB-Low (0)    | 2687.5 (41565) | 23.23 | 22.21 | 21.30 |
|                |                 | 2640.3(41093)  | 23.22 | 22.23 | 21.30 |
|                |                 | 2593 (40620)   | 23.17 | 22.18 | 21.25 |
|                |                 | 2545.8(40148)  | 23.31 | 22.29 | 21.36 |
|                |                 | 2498.5 (39675) | 23.23 | 22.15 | 21.23 |
|                | 25RB (0)        | 2687.5 (41565) | 23.19 | 22.26 | 21.32 |
|                |                 | 2640.3(41093)  | 23.22 | 22.27 | 21.34 |
| 2593 (40620)   |                 | 23.17          | 22.21 | 21.31 |       |
| 2545.8(40148)  |                 | 23.29          | 22.32 | 21.42 |       |
| 2498.5 (39675) |                 | 23.20          | 22.21 | 21.27 |       |
| 10MHz          | 1RB-High (49)   | 2685 (41540)   | 24.15 | 23.33 | 22.16 |
|                |                 | 2639(41080)    | 24.18 | 23.38 | 22.21 |
|                |                 | 2593 (40620)   | 24.13 | 23.34 | 22.16 |
|                |                 | 2547(40160)    | 24.32 | 23.46 | 22.31 |
|                |                 | 2501 (39700)   | 24.16 | 23.31 | 22.14 |
|                | 1RB-Middle (24) | 2685 (41540)   | 24.21 | 23.36 | 22.21 |
|                |                 | 2639(41080)    | 24.26 | 23.45 | 22.30 |
|                |                 | 2593 (40620)   | 24.22 | 23.40 | 22.20 |

|              |                  |                |       |       |       |
|--------------|------------------|----------------|-------|-------|-------|
|              |                  | 2547(40160)    | 24.38 | 23.52 | 22.34 |
|              |                  | 2501 (39700)   | 24.23 | 23.34 | 22.19 |
|              | 1RB-Low (0)      | 2685 (41540)   | 24.20 | 23.36 | 22.22 |
|              |                  | 2639(41080)    | 24.20 | 23.42 | 22.25 |
|              |                  | 2593 (40620)   | 24.21 | 23.38 | 22.21 |
|              |                  | 2547(40160)    | 24.32 | 23.48 | 22.30 |
|              |                  | 2501 (39700)   | 24.19 | 23.27 | 22.13 |
|              | 25RB-High (25)   | 2685 (41540)   | 23.22 | 22.25 | 21.32 |
|              |                  | 2639(41080)    | 23.26 | 22.27 | 21.37 |
|              |                  | 2593 (40620)   | 23.20 | 22.22 | 21.30 |
|              |                  | 2547(40160)    | 23.37 | 22.38 | 21.47 |
|              |                  | 2501 (39700)   | 23.23 | 22.22 | 21.32 |
|              | 25RB-Middle (12) | 2685 (41540)   | 23.28 | 22.31 | 21.39 |
|              |                  | 2639(41080)    | 23.29 | 22.33 | 21.41 |
|              |                  | 2593 (40620)   | 23.25 | 22.29 | 21.37 |
|              |                  | 2547(40160)    | 23.39 | 22.43 | 21.47 |
|              |                  | 2501 (39700)   | 23.22 | 22.23 | 21.31 |
|              | 25RB-Low (0)     | 2685 (41540)   | 23.24 | 22.27 | 21.36 |
|              |                  | 2639(41080)    | 23.28 | 22.31 | 21.39 |
|              |                  | 2593 (40620)   | 23.21 | 22.24 | 21.33 |
|              |                  | 2547(40160)    | 23.32 | 22.33 | 21.41 |
|              |                  | 2501 (39700)   | 23.18 | 22.15 | 21.25 |
|              | 50RB (0)         | 2685 (41540)   | 23.30 | 22.29 | 21.30 |
|              |                  | 2639(41080)    | 23.28 | 22.31 | 21.31 |
|              |                  | 2593 (40620)   | 23.24 | 22.25 | 21.27 |
| 2547(40160)  |                  | 23.40          | 22.37 | 21.39 |       |
| 2501 (39700) |                  | 23.25          | 22.22 | 21.23 |       |
| 15MHz        | 1RB-High (74)    | 2682.5 (41515) | 24.12 | 23.27 | 22.14 |
|              |                  | 2637.8(41068)  | 24.15 | 23.36 | 22.18 |
|              |                  | 2593 (40620)   | 24.10 | 23.31 | 22.12 |
|              |                  | 2548.3(40173)  | 24.27 | 23.41 | 22.26 |
|              |                  | 2503.5 (39725) | 24.13 | 23.30 | 22.14 |
|              | 1RB-Middle (37)  | 2682.5 (41515) | 24.25 | 23.40 | 22.26 |
|              |                  | 2637.8(41068)  | 24.25 | 23.44 | 22.30 |
|              |                  | 2593 (40620)   | 24.24 | 23.42 | 22.25 |
|              |                  | 2548.3(40173)  | 24.39 | 23.53 | 22.39 |
|              |                  | 2503.5 (39725) | 24.24 | 23.33 | 22.19 |
|              | 1RB-Low (0)      | 2682.5 (41515) | 24.16 | 23.32 | 22.17 |
|              |                  | 2637.8(41068)  | 24.20 | 23.40 | 22.23 |
|              |                  | 2593 (40620)   | 24.18 | 23.37 | 22.19 |
|              |                  | 2548.3(40173)  | 24.28 | 23.45 | 22.30 |

|       |                  |                |       |       |       |
|-------|------------------|----------------|-------|-------|-------|
|       |                  | 2503.5 (39725) | 24.16 | 23.24 | 22.09 |
|       | 36RB-High (38)   | 2682.5 (41515) | 23.22 | 22.21 | 21.26 |
|       |                  | 2637.8(41068)  | 23.25 | 22.24 | 21.28 |
|       |                  | 2593 (40620)   | 23.19 | 22.18 | 21.24 |
|       |                  | 2548.3(40173)  | 23.38 | 22.35 | 21.39 |
|       |                  | 2503.5 (39725) | 23.24 | 22.21 | 21.24 |
|       | 36RB-Middle (19) | 2682.5 (41515) | 23.26 | 22.25 | 21.32 |
|       |                  | 2637.8(41068)  | 23.30 | 22.30 | 21.34 |
|       |                  | 2593 (40620)   | 23.24 | 22.23 | 21.28 |
|       |                  | 2548.3(40173)  | 23.43 | 22.37 | 21.41 |
|       |                  | 2503.5 (39725) | 23.25 | 22.20 | 21.25 |
|       | 36RB-Low (0)     | 2682.5 (41515) | 23.26 | 22.24 | 21.29 |
|       |                  | 2637.8(41068)  | 23.25 | 22.25 | 21.29 |
|       |                  | 2593 (40620)   | 23.23 | 22.21 | 21.26 |
|       |                  | 2548.3(40173)  | 23.34 | 22.29 | 21.35 |
|       |                  | 2503.5 (39725) | 23.17 | 22.12 | 21.17 |
|       | 75RB (0)         | 2682.5 (41515) | 23.24 | 22.25 | 21.29 |
|       |                  | 2637.8(41068)  | 23.28 | 22.30 | 21.33 |
|       |                  | 2593 (40620)   | 23.22 | 22.23 | 21.28 |
|       |                  | 2548.3(40173)  | 23.36 | 22.33 | 21.38 |
|       |                  | 2503.5 (39725) | 23.23 | 22.21 | 21.23 |
| 20MHz | 1RB-High (99)    | 2680 (41490)   | 24.05 | 23.21 | 22.07 |
|       |                  | 2636.5(41055)  | 24.11 | 23.32 | 22.13 |
|       |                  | 2593 (40620)   | 24.03 | 23.23 | 22.04 |
|       |                  | 2549.5(40185)  | 24.18 | 23.34 | 22.16 |
|       |                  | 2506 (39750)   | 24.08 | 23.26 | 22.10 |
|       | 1RB-Middle (50)  | 2680 (41490)   | 24.25 | 23.42 | 22.27 |
|       |                  | 2636.5(41055)  | 24.24 | 23.47 | 22.31 |
|       |                  | 2593 (40620)   | 24.40 | 23.43 | 22.26 |
|       |                  | 2549.5(40185)  | 24.38 | 23.53 | 22.37 |
|       |                  | 2506 (39750)   | 24.22 | 23.36 | 22.21 |
|       | 1RB-Low (0)      | 2680 (41490)   | 24.11 | 23.29 | 22.15 |
|       |                  | 2636.5(41055)  | 24.14 | 23.37 | 22.19 |
|       |                  | 2593 (40620)   | 24.13 | 23.32 | 22.13 |
|       |                  | 2549.5(40185)  | 24.22 | 23.38 | 22.22 |
|       |                  | 2506 (39750)   | 24.07 | 23.17 | 22.03 |
|       | 50RB-High (50)   | 2680 (41490)   | 23.26 | 22.25 | 21.26 |
|       |                  | 2636.5(41055)  | 23.25 | 22.28 | 21.29 |
|       |                  | 2593 (40620)   | 23.21 | 22.22 | 21.24 |
|       |                  | 2549.5(40185)  | 23.41 | 22.40 | 21.43 |
|       |                  | 2506 (39750)   | 23.32 | 22.30 | 21.32 |



|  |                  |               |       |       |       |
|--|------------------|---------------|-------|-------|-------|
|  | 50RB-Middle (25) | 2680 (41490)  | 23.36 | 22.36 | 21.36 |
|  |                  | 2636.5(41055) | 23.37 | 22.39 | 21.39 |
|  |                  | 2593 (40620)  | 23.46 | 22.31 | 21.32 |
|  |                  | 2549.5(40185) | 23.45 | 22.46 | 21.46 |
|  |                  | 2506 (39750)  | 23.32 | 22.31 | 21.31 |
|  | 50RB-Low (0)     | 2680 (41490)  | 23.29 | 22.32 | 21.31 |
|  |                  | 2636.5(41055) | 23.30 | 22.33 | 21.33 |
|  |                  | 2593 (40620)  | 23.27 | 22.28 | 21.27 |
|  |                  | 2549.5(40185) | 23.34 | 22.35 | 21.35 |
|  |                  | 2506 (39750)  | 23.21 | 22.17 | 21.18 |
|  | 100RB (0)        | 2680 (41490)  | 23.29 | 22.28 | 21.30 |
|  |                  | 2636.5(41055) | 23.29 | 22.32 | 21.32 |
|  |                  | 2593 (40620)  | 23.27 | 22.25 | 21.25 |
|  |                  | 2549.5(40185) | 23.39 | 22.35 | 21.38 |
|  |                  | 2506 (39750)  | 23.28 | 22.27 | 21.25 |

**LTE Band41 ANT1 (DSI3/4/5)**

| BANDWIDTH | Number of RBs   | Frequency      | QPSK  | 16QAM | 64QAM |
|-----------|-----------------|----------------|-------|-------|-------|
| 5MHz      | 1RB-High (24)   | 2687.5 (41565) | 23.41 | 23.57 | 22.06 |
|           |                 | 2640.3(41093)  | 23.34 | 23.65 | 22.08 |
|           |                 | 2593 (40620)   | 22.97 | 22.93 | 21.59 |
|           |                 | 2545.8(40148)  | 23.11 | 23.10 | 21.81 |
|           |                 | 2498.5 (39675) | 23.11 | 22.93 | 21.46 |
|           | 1RB-Middle (12) | 2687.5 (41565) | 23.43 | 23.62 | 22.49 |
|           |                 | 2640.3(41093)  | 23.40 | 23.45 | 22.19 |
|           |                 | 2593 (40620)   | 23.46 | 23.44 | 22.00 |
|           |                 | 2545.8(40148)  | 23.20 | 23.18 | 22.09 |
|           |                 | 2498.5 (39675) | 23.12 | 23.05 | 21.94 |
|           | 1RB-Low (0)     | 2687.5 (41565) | 23.55 | 23.70 | 22.49 |
|           |                 | 2640.3(41093)  | 23.26 | 23.55 | 21.95 |
|           |                 | 2593 (40620)   | 23.12 | 23.08 | 21.98 |
|           |                 | 2545.8(40148)  | 23.11 | 23.20 | 21.73 |
|           |                 | 2498.5 (39675) | 23.04 | 23.03 | 21.63 |
|           | 12RB-High (13)  | 2687.5 (41565) | 23.37 | 22.48 | 21.57 |
|           |                 | 2640.3(41093)  | 23.37 | 22.58 | 21.62 |
|           |                 | 2593 (40620)   | 23.17 | 22.23 | 21.09 |
|           |                 | 2545.8(40148)  | 23.08 | 22.13 | 21.00 |
|           |                 | 2498.5 (39675) | 22.87 | 21.88 | 21.03 |
|           | 12RB-Middle (6) | 2687.5 (41565) | 23.51 | 22.77 | 21.82 |
|           |                 | 2640.3(41093)  | 23.51 | 22.39 | 21.58 |

|                  |              |                |              |       |       |       |
|------------------|--------------|----------------|--------------|-------|-------|-------|
|                  |              | 2593 (40620)   | 23.63        | 22.25 | 21.16 |       |
|                  |              | 2545.8(40148)  | 23.12        | 22.00 | 21.13 |       |
|                  |              | 2498.5 (39675) | 23.10        | 22.12 | 21.21 |       |
|                  | 12RB-Low (0) | 2687.5 (41565) | 23.48        | 22.52 | 21.80 |       |
|                  |              | 2640.3(41093)  | 23.27        | 22.52 | 21.62 |       |
|                  |              | 2593 (40620)   | 23.32        | 22.39 | 21.37 |       |
|                  |              | 2545.8(40148)  | 23.17        | 22.08 | 21.17 |       |
|                  |              | 2498.5 (39675) | 22.92        | 21.73 | 20.95 |       |
|                  | 25RB (0)     | 2687.5 (41565) | 23.82        | 22.53 | 21.58 |       |
|                  |              | 2640.3(41093)  | 23.38        | 22.57 | 21.63 |       |
|                  |              | 2593 (40620)   | 23.32        | 22.24 | 21.12 |       |
|                  |              | 2545.8(40148)  | 23.07        | 22.18 | 21.06 |       |
|                  |              | 2498.5 (39675) | 23.14        | 22.14 | 20.90 |       |
|                  | 10MHz        | 1RB-High (49)  | 2685 (41540) | 23.58 | 23.38 | 22.28 |
|                  |              |                | 2639(41080)  | 23.51 | 23.38 | 22.20 |
| 2593 (40620)     |              |                | 23.20        | 23.05 | 21.91 |       |
| 2547(40160)      |              |                | 23.28        | 22.99 | 21.78 |       |
| 2501 (39700)     |              |                | 23.06        | 22.86 | 21.61 |       |
| 1RB-Middle (24)  |              | 2685 (41540)   | 23.64        | 23.84 | 22.56 |       |
|                  |              | 2639(41080)    | 23.70        | 23.64 | 22.07 |       |
|                  |              | 2593 (40620)   | 23.76        | 23.49 | 21.88 |       |
|                  |              | 2547(40160)    | 23.25        | 23.39 | 22.07 |       |
|                  |              | 2501 (39700)   | 23.28        | 23.16 | 21.96 |       |
| 1RB-Low (0)      |              | 2685 (41540)   | 23.51        | 23.75 | 22.29 |       |
|                  |              | 2639(41080)    | 23.22        | 23.32 | 21.88 |       |
|                  |              | 2593 (40620)   | 23.26        | 23.38 | 21.94 |       |
|                  |              | 2547(40160)    | 23.25        | 23.17 | 21.86 |       |
|                  |              | 2501 (39700)   | 22.97        | 23.08 | 21.50 |       |
| 25RB-High (25)   |              | 2685 (41540)   | 23.35        | 22.48 | 21.54 |       |
|                  |              | 2639(41080)    | 23.28        | 22.64 | 21.54 |       |
|                  |              | 2593 (40620)   | 23.03        | 22.05 | 21.22 |       |
|                  |              | 2547(40160)    | 23.31        | 22.21 | 21.35 |       |
|                  |              | 2501 (39700)   | 23.06        | 21.92 | 20.94 |       |
| 25RB-Middle (12) |              | 2685 (41540)   | 23.62        | 22.68 | 21.62 |       |
|                  |              | 2639(41080)    | 23.47        | 22.50 | 21.51 |       |
|                  |              | 2593 (40620)   | 23.72        | 22.21 | 21.14 |       |
|                  |              | 2547(40160)    | 23.29        | 22.28 | 21.17 |       |
|                  | 2501 (39700) | 22.91          | 21.98        | 21.08 |       |       |
| 25RB-Low (0)     | 2685 (41540) | 23.38          | 22.86        | 21.66 |       |       |
|                  | 2639(41080)  | 23.38          | 22.46        | 21.52 |       |       |
|                  | 2593 (40620) | 23.31          | 22.17        | 21.34 |       |       |

|                |                  |                |       |       |       |
|----------------|------------------|----------------|-------|-------|-------|
|                | 50RB (0)         | 2547(40160)    | 22.97 | 21.91 | 21.24 |
|                |                  | 2501 (39700)   | 22.85 | 21.95 | 21.05 |
|                |                  | 2685 (41540)   | 23.54 | 22.69 | 21.85 |
|                |                  | 2639(41080)    | 23.58 | 22.54 | 21.53 |
|                |                  | 2593 (40620)   | 23.21 | 22.17 | 21.12 |
|                |                  | 2547(40160)    | 23.34 | 22.29 | 20.99 |
|                |                  | 2501 (39700)   | 23.02 | 22.14 | 21.09 |
| 15MHz          | 1RB-High (74)    | 2682.5 (41515) | 23.41 | 23.39 | 22.00 |
|                |                  | 2637.8(41068)  | 23.55 | 23.58 | 22.08 |
|                |                  | 2593 (40620)   | 22.93 | 23.21 | 21.80 |
|                |                  | 2548.3(40173)  | 23.12 | 23.02 | 21.58 |
|                |                  | 2503.5 (39725) | 22.95 | 23.14 | 21.55 |
|                | 1RB-Middle (37)  | 2682.5 (41515) | 23.64 | 23.81 | 22.44 |
|                |                  | 2637.8(41068)  | 23.50 | 23.41 | 22.31 |
|                |                  | 2593 (40620)   | 23.74 | 23.37 | 21.79 |
|                |                  | 2548.3(40173)  | 23.30 | 23.16 | 22.02 |
|                |                  | 2503.5 (39725) | 23.20 | 23.24 | 21.79 |
|                | 1RB-Low (0)      | 2682.5 (41515) | 23.37 | 23.79 | 22.26 |
|                |                  | 2637.8(41068)  | 23.20 | 23.25 | 21.92 |
|                |                  | 2593 (40620)   | 23.31 | 23.11 | 21.98 |
|                |                  | 2548.3(40173)  | 23.13 | 23.18 | 21.71 |
|                |                  | 2503.5 (39725) | 23.12 | 22.92 | 21.53 |
|                | 36RB-High (38)   | 2682.5 (41515) | 23.32 | 22.44 | 21.77 |
|                |                  | 2637.8(41068)  | 23.29 | 22.32 | 21.38 |
|                |                  | 2593 (40620)   | 23.15 | 22.11 | 21.27 |
|                |                  | 2548.3(40173)  | 23.02 | 22.02 | 21.34 |
|                |                  | 2503.5 (39725) | 22.92 | 21.91 | 21.15 |
|                | 36RB-Middle (19) | 2682.5 (41515) | 23.62 | 22.55 | 21.88 |
|                |                  | 2637.8(41068)  | 23.60 | 22.42 | 21.57 |
|                |                  | 2593 (40620)   | 23.49 | 22.34 | 21.43 |
|                |                  | 2548.3(40173)  | 23.14 | 22.10 | 21.12 |
|                |                  | 2503.5 (39725) | 22.87 | 21.90 | 20.88 |
|                | 36RB-Low (0)     | 2682.5 (41515) | 23.48 | 22.79 | 21.86 |
|                |                  | 2637.8(41068)  | 23.37 | 22.54 | 21.37 |
|                |                  | 2593 (40620)   | 23.05 | 22.37 | 21.23 |
| 2548.3(40173)  |                  | 23.05          | 22.02 | 21.08 |       |
| 2503.5 (39725) |                  | 22.74          | 22.00 | 20.75 |       |
| 75RB (0)       | 2682.5 (41515)   | 23.82          | 22.73 | 21.78 |       |
|                | 2637.8(41068)    | 23.39          | 22.64 | 21.44 |       |
|                | 2593 (40620)     | 23.33          | 22.35 | 21.07 |       |
|                | 2548.3(40173)    | 23.14          | 22.02 | 21.22 |       |

|              |                  |                |       |       |       |
|--------------|------------------|----------------|-------|-------|-------|
|              |                  | 2503.5 (39725) | 23.05 | 22.00 | 21.06 |
| 20MHz        | 1RB-High (99)    | 2680 (41490)   | 23.55 | 23.48 | 22.18 |
|              |                  | 2636.5(41055)  | 23.45 | 23.47 | 22.14 |
|              |                  | 2593 (40620)   | 23.06 | 23.09 | 21.75 |
|              |                  | 2549.5(40185)  | 23.13 | 23.15 | 21.75 |
|              |                  | 2506 (39750)   | 22.95 | 22.97 | 21.58 |
|              | 1RB-Middle (50)  | 2680 (41490)   | 23.50 | 23.76 | 22.44 |
|              |                  | 2636.5(41055)  | 23.57 | 23.58 | 22.25 |
|              |                  | 2593 (40620)   | 23.62 | 23.32 | 21.93 |
|              |                  | 2549.5(40185)  | 23.33 | 23.32 | 21.98 |
|              |                  | 2506 (39750)   | 23.16 | 23.15 | 21.79 |
|              | 1RB-Low (0)      | 2680 (41490)   | 23.55 | 23.64 | 22.31 |
|              |                  | 2636.5(41055)  | 23.37 | 23.37 | 22.05 |
|              |                  | 2593 (40620)   | 23.23 | 23.20 | 21.90 |
|              |                  | 2549.5(40185)  | 23.09 | 23.08 | 21.72 |
|              |                  | 2506 (39750)   | 23.04 | 22.98 | 21.63 |
|              | 50RB-High (50)   | 2680 (41490)   | 23.50 | 22.56 | 21.59 |
|              |                  | 2636.5(41055)  | 23.45 | 22.49 | 21.54 |
|              |                  | 2593 (40620)   | 23.13 | 22.16 | 21.22 |
|              |                  | 2549.5(40185)  | 23.13 | 22.16 | 21.18 |
|              |                  | 2506 (39750)   | 23.01 | 22.03 | 21.06 |
|              | 50RB-Middle (25) | 2680 (41490)   | 23.59 | 22.71 | 21.79 |
|              |                  | 2636.5(41055)  | 23.51 | 22.57 | 21.64 |
|              |                  | 2593 (40620)   | 23.62 | 22.27 | 21.31 |
|              |                  | 2549.5(40185)  | 23.14 | 22.17 | 21.22 |
|              |                  | 2506 (39750)   | 23.02 | 22.04 | 21.06 |
| 50RB-Low (0) | 2680 (41490)     | 23.55          | 22.68 | 21.76 |       |
|              | 2636.5(41055)    | 23.40          | 22.41 | 21.47 |       |
|              | 2593 (40620)     | 23.15          | 22.21 | 21.26 |       |
|              | 2549.5(40185)    | 23.06          | 22.08 | 21.14 |       |
|              | 2506 (39750)     | 22.87          | 21.89 | 20.92 |       |
| 100RB (0)    | 2680 (41490)     | 23.70          | 22.69 | 21.70 |       |
|              | 2636.5(41055)    | 23.51          | 22.50 | 21.48 |       |
|              | 2593 (40620)     | 23.22          | 22.21 | 21.23 |       |
|              | 2549.5(40185)    | 23.17          | 22.13 | 21.15 |       |
|              | 2506 (39750)     | 23.05          | 21.99 | 21.02 |       |

## LTE Band66 ANT1 (DSI1)

| BANDWIDTH | Number of RBs  | Frequency       | QPSK  | 16QAM | 64QAM |
|-----------|----------------|-----------------|-------|-------|-------|
| 1.4MHz    | 1RB-High (5)   | 1779.3 (132665) | 24.01 | 23.13 | 22.24 |
|           |                | 1745 (132322)   | 23.99 | 23.16 | 22.19 |
|           |                | 1710.7 (131979) | 24.03 | 23.20 | 22.32 |
|           | 1RB-Middle (3) | 1779.3 (132665) | 24.09 | 23.16 | 22.29 |
|           |                | 1745 (132322)   | 24.02 | 23.23 | 22.19 |
|           |                | 1710.7 (131979) | 24.07 | 23.28 | 22.39 |
|           | 1RB-Low (0)    | 1779.3 (132665) | 24.02 | 23.20 | 22.22 |
|           |                | 1745 (132322)   | 23.95 | 23.02 | 22.21 |
|           |                | 1710.7 (131979) | 24.00 | 23.19 | 22.25 |
|           | 3RB-High (3)   | 1779.3 (132665) | 24.16 | 23.04 | 22.30 |
|           |                | 1745 (132322)   | 24.12 | 23.02 | 22.21 |
|           |                | 1710.7 (131979) | 24.12 | 23.00 | 22.29 |
|           | 3RB-Middle (1) | 1779.3 (132665) | 24.15 | 23.04 | 22.28 |
|           |                | 1745 (132322)   | 24.10 | 22.98 | 22.24 |
|           |                | 1710.7 (131979) | 24.15 | 23.09 | 22.34 |
|           | 3RB-Low (0)    | 1779.3 (132665) | 24.14 | 23.04 | 22.28 |
|           |                | 1745 (132322)   | 24.07 | 22.92 | 22.18 |
|           |                | 1710.7 (131979) | 24.12 | 23.02 | 22.36 |
|           | 6RB (0)        | 1779.3 (132665) | 23.22 | 22.29 | 21.19 |
|           |                | 1745 (132322)   | 23.19 | 22.28 | 21.20 |
|           |                | 1710.7 (131979) | 23.23 | 22.33 | 21.29 |
| 3MHz      | 1RB-High (14)  | 1778.5 (132657) | 23.91 | 22.93 | 22.11 |
|           |                | 1745 (132322)   | 23.85 | 23.03 | 22.07 |
|           |                | 1711.5 (131987) | 23.86 | 23.13 | 22.24 |
|           | 1RB-Middle (7) | 1778.5 (132657) | 23.98 | 23.18 | 22.21 |
|           |                | 1745 (132322)   | 23.97 | 23.19 | 22.16 |
|           |                | 1711.5 (131987) | 23.99 | 23.21 | 22.28 |
|           | 1RB-Low (0)    | 1778.5 (132657) | 23.87 | 22.97 | 22.16 |
|           |                | 1745 (132322)   | 23.83 | 22.97 | 22.07 |
|           |                | 1711.5 (131987) | 23.86 | 23.02 | 22.18 |
|           | 8RB-High (7)   | 1778.5 (132657) | 23.09 | 22.13 | 21.14 |
|           |                | 1745 (132322)   | 23.04 | 22.07 | 21.10 |
|           |                | 1711.5 (131987) | 23.11 | 22.11 | 21.19 |
|           | 8RB-Middle (4) | 1778.5 (132657) | 23.13 | 22.20 | 21.20 |
|           |                | 1745 (132322)   | 23.11 | 22.11 | 21.16 |
|           |                | 1711.5 (131987) | 23.14 | 22.23 | 21.24 |
|           | 8RB-Low (0)    | 1778.5 (132657) | 23.08 | 22.11 | 21.13 |
|           |                | 1745 (132322)   | 23.05 | 22.06 | 21.12 |

|                  |                 |                 |               |       |       |       |
|------------------|-----------------|-----------------|---------------|-------|-------|-------|
|                  |                 | 1711.5 (131987) | 23.08         | 22.15 | 21.18 |       |
|                  | 15RB (0)        | 1778.5 (132657) | 23.11         | 22.09 | 21.13 |       |
|                  |                 | 1745 (132322)   | 23.10         | 22.06 | 21.10 |       |
|                  |                 | 1711.5 (131987) | 23.13         | 22.10 | 21.16 |       |
| 5MHz             | 1RB-High (24)   | 1777.5 (132647) | 24.06         | 23.27 | 22.18 |       |
|                  |                 | 1745 (132322)   | 24.05         | 23.19 | 22.24 |       |
|                  |                 | 1712.5 (131997) | 24.08         | 23.36 | 22.26 |       |
|                  | 1RB-Middle (12) | 1777.5 (132647) | 24.21         | 23.34 | 22.36 |       |
|                  |                 | 1745 (132322)   | 24.17         | 23.35 | 22.33 |       |
|                  |                 | 1712.5 (131997) | 24.20         | 23.38 | 22.43 |       |
|                  | 1RB-Low (0)     | 1777.5 (132647) | 24.06         | 23.14 | 22.16 |       |
|                  |                 | 1745 (132322)   | 24.06         | 23.19 | 22.17 |       |
|                  |                 | 1712.5 (131997) | 24.10         | 23.34 | 22.35 |       |
|                  | 12RB-High (13)  | 1777.5 (132647) | 23.15         | 22.12 | 21.20 |       |
|                  |                 | 1745 (132322)   | 23.10         | 22.08 | 21.18 |       |
|                  |                 | 1712.5 (131997) | 23.17         | 22.17 | 21.24 |       |
|                  | 12RB-Middle (6) | 1777.5 (132647) | 23.22         | 22.21 | 21.25 |       |
|                  |                 | 1745 (132322)   | 23.18         | 22.17 | 21.22 |       |
|                  |                 | 1712.5 (131997) | 23.22         | 22.22 | 21.28 |       |
|                  | 12RB-Low (0)    | 1777.5 (132647) | 23.17         | 22.16 | 21.20 |       |
|                  |                 | 1745 (132322)   | 23.11         | 22.09 | 21.14 |       |
|                  |                 | 1712.5 (131997) | 23.15         | 22.13 | 21.21 |       |
|                  | 25RB (0)        | 1777.5 (132647) | 23.20         | 22.16 | 21.22 |       |
|                  |                 | 1745 (132322)   | 23.14         | 22.14 | 21.17 |       |
|                  |                 | 1712.5 (131997) | 23.19         | 22.22 | 21.23 |       |
|                  | 10MHz           | 1RB-High (49)   | 1775 (132622) | 24.19 | 23.24 | 22.32 |
|                  |                 |                 | 1745 (132322) | 24.14 | 23.32 | 22.30 |
|                  |                 |                 | 1715 (132022) | 24.24 | 23.42 | 22.39 |
| 1RB-Middle (24)  |                 | 1775 (132622)   | 24.20         | 23.37 | 22.35 |       |
|                  |                 | 1745 (132322)   | 24.20         | 23.37 | 22.33 |       |
|                  |                 | 1715 (132022)   | 24.19         | 23.36 | 22.38 |       |
| 1RB-Low (0)      |                 | 1775 (132622)   | 24.16         | 23.27 | 22.35 |       |
|                  |                 | 1745 (132322)   | 24.20         | 23.34 | 22.29 |       |
|                  |                 | 1715 (132022)   | 24.18         | 23.43 | 22.39 |       |
| 25RB-High (25)   |                 | 1775 (132622)   | 23.19         | 22.16 | 21.20 |       |
|                  |                 | 1745 (132322)   | 23.18         | 22.14 | 21.19 |       |
|                  |                 | 1715 (132022)   | 23.22         | 22.25 | 21.27 |       |
| 25RB-Middle (12) |                 | 1775 (132622)   | 23.22         | 22.20 | 21.23 |       |
|                  |                 | 1745 (132322)   | 23.20         | 22.22 | 21.23 |       |
|                  |                 | 1715 (132022)   | 23.23         | 22.24 | 21.25 |       |
| 25RB-Low (0)     | 1775 (132622)   | 23.19           | 22.17         | 21.17 |       |       |

|                  |                  |                 |               |       |       |       |
|------------------|------------------|-----------------|---------------|-------|-------|-------|
|                  | 50RB (0)         | 1745 (132322)   | 23.16         | 22.13 | 21.13 |       |
|                  |                  | 1715 (132022)   | 23.16         | 22.15 | 21.17 |       |
|                  |                  | 1775 (132622)   | 23.18         | 22.15 | 21.16 |       |
|                  |                  | 1745 (132322)   | 23.22         | 22.17 | 21.18 |       |
|                  |                  | 1715 (132022)   | 23.23         | 22.19 | 21.22 |       |
| 15MHz            | 1RB-High (74)    | 1772.5 (132597) | 24.13         | 23.30 | 22.28 |       |
|                  |                  | 1745 (132322)   | 24.08         | 23.24 | 22.19 |       |
|                  |                  | 1717.5 (132047) | 24.15         | 23.30 | 22.36 |       |
|                  | 1RB-Middle (37)  | 1772.5 (132597) | 24.21         | 23.36 | 22.35 |       |
|                  |                  | 1745 (132322)   | 24.17         | 23.28 | 22.34 |       |
|                  |                  | 1717.5 (132047) | 24.23         | 23.46 | 22.38 |       |
|                  | 1RB-Low (0)      | 1772.5 (132597) | 24.09         | 23.26 | 22.28 |       |
|                  |                  | 1745 (132322)   | 24.14         | 23.26 | 22.27 |       |
|                  |                  | 1717.5 (132047) | 24.13         | 23.35 | 22.33 |       |
|                  | 36RB-High (38)   | 1772.5 (132597) | 23.19         | 22.15 | 21.22 |       |
|                  |                  | 1745 (132322)   | 23.17         | 22.13 | 21.21 |       |
|                  |                  | 1717.5 (132047) | 23.24         | 22.22 | 21.30 |       |
|                  | 36RB-Middle (19) | 1772.5 (132597) | 23.21         | 22.15 | 21.25 |       |
|                  |                  | 1745 (132322)   | 23.20         | 22.17 | 21.25 |       |
|                  |                  | 1717.5 (132047) | 23.24         | 22.22 | 21.28 |       |
|                  | 36RB-Low (0)     | 1772.5 (132597) | 23.14         | 22.12 | 21.18 |       |
|                  |                  | 1745 (132322)   | 23.15         | 22.12 | 21.18 |       |
|                  |                  | 1717.5 (132047) | 23.15         | 22.15 | 21.22 |       |
|                  | 75RB (0)         | 1772.5 (132597) | 23.19         | 22.16 | 21.19 |       |
|                  |                  | 1745 (132322)   | 23.21         | 22.15 | 21.20 |       |
|                  |                  | 1717.5 (132047) | 23.21         | 22.20 | 21.22 |       |
|                  | 20MHz            | 1RB-High (99)   | 1770 (132572) | 24.06 | 23.10 | 22.23 |
|                  |                  |                 | 1745 (132322) | 24.04 | 23.29 | 22.24 |
|                  |                  |                 | 1720 (132072) | 24.06 | 23.19 | 22.19 |
|                  |                  | 1RB-Middle (50) | 1770 (132572) | 24.19 | 23.44 | 22.35 |
|                  |                  |                 | 1745 (132322) | 24.41 | 23.27 | 22.30 |
|                  |                  |                 | 1720 (132072) | 24.19 | 23.39 | 22.44 |
| 1RB-Low (0)      |                  | 1770 (132572)   | 23.99         | 23.27 | 22.14 |       |
|                  |                  | 1745 (132322)   | 24.02         | 23.12 | 22.14 |       |
|                  |                  | 1720 (132072)   | 24.03         | 23.26 | 22.24 |       |
| 50RB-High (50)   |                  | 1770 (132572)   | 23.20         | 22.14 | 21.19 |       |
|                  |                  | 1745 (132322)   | 23.46         | 22.15 | 21.17 |       |
|                  |                  | 1720 (132072)   | 23.28         | 22.24 | 21.28 |       |
| 50RB-Middle (25) |                  | 1770 (132572)   | 23.28         | 22.23 | 21.26 |       |
|                  |                  | 1745 (132322)   | 23.27         | 22.23 | 21.27 |       |
|                  |                  | 1720 (132072)   | 23.28         | 22.24 | 21.30 |       |

|  |              |               |       |       |       |
|--|--------------|---------------|-------|-------|-------|
|  | 50RB-Low (0) | 1770 (132572) | 23.18 | 22.16 | 21.19 |
|  |              | 1745 (132322) | 23.20 | 22.14 | 21.15 |
|  |              | 1720 (132072) | 23.16 | 22.13 | 21.18 |
|  | 100RB (0)    | 1770 (132572) | 23.16 | 22.13 | 21.17 |
|  |              | 1745 (132322) | 23.16 | 22.12 | 21.17 |
|  |              | 1720 (132072) | 23.19 | 22.17 | 21.20 |

**LTE Band66 ANT1 (DSI3)**

| BANDWIDTH      | Number of RBs   | Frequency       | QPSK            | 16QAM | 64QAM |       |
|----------------|-----------------|-----------------|-----------------|-------|-------|-------|
| 1.4MHz         | 1RB-High (5)    | 1779.3 (132665) | 20.67           | 20.84 | 20.69 |       |
|                |                 | 1745 (132322)   | 20.68           | 21.10 | 20.83 |       |
|                |                 | 1710.7 (131979) | 20.90           | 20.79 | 20.81 |       |
|                | 1RB-Middle (3)  | 1779.3 (132665) | 20.94           | 21.28 | 20.96 |       |
|                |                 | 1745 (132322)   | 20.85           | 21.05 | 20.96 |       |
|                |                 | 1710.7 (131979) | 20.89           | 21.19 | 20.83 |       |
|                | 1RB-Low (0)     | 1779.3 (132665) | 20.87           | 21.09 | 20.85 |       |
|                |                 | 1745 (132322)   | 20.96           | 21.16 | 21.09 |       |
|                |                 | 1710.7 (131979) | 20.86           | 20.99 | 20.67 |       |
|                | 3RB-High (3)    | 1779.3 (132665) | 20.80           | 20.70 | 20.72 |       |
|                |                 | 1745 (132322)   | 20.90           | 20.89 | 21.06 |       |
|                |                 | 1710.7 (131979) | 20.86           | 20.86 | 21.01 |       |
|                | 3RB-Middle (1)  | 1779.3 (132665) | 20.97           | 21.15 | 20.99 |       |
|                |                 | 1745 (132322)   | 20.82           | 21.22 | 21.25 |       |
|                |                 | 1710.7 (131979) | 20.93           | 21.26 | 21.18 |       |
|                | 3RB-Low (0)     | 1779.3 (132665) | 20.71           | 21.00 | 20.65 |       |
|                |                 | 1745 (132322)   | 20.98           | 21.08 | 21.09 |       |
|                |                 | 1710.7 (131979) | 20.75           | 20.91 | 20.73 |       |
|                | 6RB (0)         | 1779.3 (132665) | 20.84           | 20.65 | 20.71 |       |
|                |                 | 1745 (132322)   | 20.87           | 20.88 | 20.77 |       |
|                |                 | 1710.7 (131979) | 21.01           | 20.84 | 20.97 |       |
|                | 3MHz            | 1RB-High (14)   | 1778.5 (132657) | 20.85 | 20.86 | 20.85 |
|                |                 |                 | 1745 (132322)   | 20.92 | 21.06 | 21.10 |
|                |                 |                 | 1711.5 (131987) | 20.81 | 20.98 | 21.01 |
| 1RB-Middle (7) |                 | 1778.5 (132657) | 21.04           | 20.95 | 21.24 |       |
|                |                 | 1745 (132322)   | 20.86           | 21.07 | 21.25 |       |
|                |                 | 1711.5 (131987) | 20.79           | 21.06 | 20.99 |       |
| 1RB-Low (0)    |                 | 1778.5 (132657) | 20.77           | 21.08 | 20.87 |       |
|                |                 | 1745 (132322)   | 20.86           | 21.10 | 21.10 |       |
|                |                 | 1711.5 (131987) | 20.59           | 21.01 | 20.99 |       |
| 8RB-High (7)   | 1778.5 (132657) | 20.99           | 20.80           | 20.84 |       |       |



|             |                 |                 |               |       |       |       |
|-------------|-----------------|-----------------|---------------|-------|-------|-------|
|             | 8RB-Middle (4)  | 1745 (132322)   | 20.96         | 20.75 | 20.86 |       |
|             |                 | 1711.5 (131987) | 20.85         | 20.83 | 21.14 |       |
|             |                 | 1778.5 (132657) | 21.08         | 21.05 | 21.03 |       |
|             |                 | 1745 (132322)   | 20.89         | 20.94 | 20.81 |       |
|             |                 | 1711.5 (131987) | 21.15         | 21.08 | 20.93 |       |
|             |                 | 1778.5 (132657) | 21.06         | 20.93 | 20.86 |       |
|             | 8RB-Low (0)     | 1745 (132322)   | 20.97         | 20.80 | 20.93 |       |
|             |                 | 1711.5 (131987) | 20.85         | 20.98 | 20.87 |       |
|             |                 | 1778.5 (132657) | 20.76         | 20.69 | 20.66 |       |
|             | 15RB (0)        | 1745 (132322)   | 20.84         | 20.71 | 21.00 |       |
|             |                 | 1711.5 (131987) | 20.72         | 20.72 | 20.84 |       |
|             |                 | 1778.5 (132657) | 20.76         | 20.69 | 20.66 |       |
| 5MHz        | 1RB-High (24)   | 1777.5 (132647) | 20.77         | 20.72 | 20.97 |       |
|             |                 | 1745 (132322)   | 20.78         | 20.99 | 21.14 |       |
|             |                 | 1712.5 (131997) | 20.70         | 21.07 | 20.69 |       |
|             | 1RB-Middle (12) | 1777.5 (132647) | 20.73         | 21.21 | 21.23 |       |
|             |                 | 1745 (132322)   | 20.86         | 21.14 | 21.03 |       |
|             |                 | 1712.5 (131997) | 20.94         | 21.29 | 20.84 |       |
|             | 1RB-Low (0)     | 1777.5 (132647) | 20.76         | 20.93 | 20.94 |       |
|             |                 | 1745 (132322)   | 20.79         | 20.94 | 21.01 |       |
|             |                 | 1712.5 (131997) | 20.79         | 20.88 | 20.78 |       |
|             | 12RB-High (13)  | 1777.5 (132647) | 20.91         | 20.88 | 20.78 |       |
|             |                 | 1745 (132322)   | 20.84         | 20.91 | 20.87 |       |
|             |                 | 1712.5 (131997) | 20.99         | 20.80 | 20.86 |       |
|             | 12RB-Middle (6) | 1777.5 (132647) | 21.08         | 21.11 | 21.00 |       |
|             |                 | 1745 (132322)   | 21.04         | 21.00 | 21.10 |       |
|             |                 | 1712.5 (131997) | 21.12         | 20.85 | 20.91 |       |
|             | 12RB-Low (0)    | 1777.5 (132647) | 20.90         | 20.77 | 20.89 |       |
|             |                 | 1745 (132322)   | 21.06         | 20.74 | 20.94 |       |
|             |                 | 1712.5 (131997) | 20.91         | 20.73 | 20.74 |       |
|             | 25RB (0)        | 1777.5 (132647) | 20.92         | 20.98 | 21.01 |       |
|             |                 | 1745 (132322)   | 21.03         | 20.84 | 20.78 |       |
|             |                 | 1712.5 (131997) | 20.84         | 20.92 | 20.93 |       |
|             | 10MHz           | 1RB-High (49)   | 1775 (132622) | 20.84 | 20.85 | 20.94 |
|             |                 |                 | 1745 (132322) | 20.98 | 21.07 | 21.06 |
|             |                 |                 | 1715 (132022) | 20.65 | 20.84 | 21.03 |
|             |                 | 1RB-Middle (24) | 1775 (132622) | 21.06 | 21.07 | 21.24 |
|             |                 |                 | 1745 (132322) | 20.91 | 21.37 | 21.13 |
|             |                 |                 | 1715 (132022) | 20.87 | 21.10 | 20.93 |
| 1RB-Low (0) |                 | 1775 (132622)   | 20.56         | 20.97 | 20.88 |       |
|             |                 | 1745 (132322)   | 20.93         | 21.11 | 20.98 |       |
|             |                 | 1715 (132022)   | 20.90         | 20.76 | 20.74 |       |

|                 |                  |                 |               |       |       |       |
|-----------------|------------------|-----------------|---------------|-------|-------|-------|
|                 | 25RB-High (25)   | 1775 (132622)   | 20.72         | 20.93 | 20.99 |       |
|                 |                  | 1745 (132322)   | 21.06         | 20.77 | 20.73 |       |
|                 |                  | 1715 (132022)   | 20.86         | 20.82 | 20.90 |       |
|                 | 25RB-Middle (12) | 1775 (132622)   | 21.05         | 20.78 | 20.89 |       |
|                 |                  | 1745 (132322)   | 20.91         | 20.98 | 21.13 |       |
|                 |                  | 1715 (132022)   | 20.89         | 20.90 | 20.90 |       |
|                 | 25RB-Low (0)     | 1775 (132622)   | 20.83         | 20.76 | 20.87 |       |
|                 |                  | 1745 (132322)   | 20.89         | 20.76 | 20.82 |       |
|                 |                  | 1715 (132022)   | 20.73         | 20.74 | 20.88 |       |
|                 | 50RB (0)         | 1775 (132622)   | 20.99         | 20.66 | 20.97 |       |
|                 |                  | 1745 (132322)   | 20.88         | 20.89 | 20.98 |       |
|                 |                  | 1715 (132022)   | 20.74         | 20.72 | 20.83 |       |
| 15MHz           | 1RB-High (74)    | 1772.5 (132597) | 20.69         | 20.91 | 20.80 |       |
|                 |                  | 1745 (132322)   | 20.69         | 21.03 | 20.86 |       |
|                 |                  | 1717.5 (132047) | 20.70         | 20.98 | 20.82 |       |
|                 | 1RB-Middle (37)  | 1772.5 (132597) | 20.73         | 21.05 | 20.96 |       |
|                 |                  | 1745 (132322)   | 21.14         | 21.32 | 21.04 |       |
|                 |                  | 1717.5 (132047) | 20.86         | 21.06 | 21.18 |       |
|                 | 1RB-Low (0)      | 1772.5 (132597) | 20.69         | 21.20 | 20.66 |       |
|                 |                  | 1745 (132322)   | 20.87         | 21.07 | 20.81 |       |
|                 |                  | 1717.5 (132047) | 20.90         | 21.07 | 20.70 |       |
|                 | 36RB-High (38)   | 1772.5 (132597) | 20.76         | 20.89 | 20.97 |       |
|                 |                  | 1745 (132322)   | 21.06         | 20.93 | 20.75 |       |
|                 |                  | 1717.5 (132047) | 21.01         | 20.99 | 21.11 |       |
|                 | 36RB-Middle (19) | 1772.5 (132597) | 20.97         | 20.92 | 21.09 |       |
|                 |                  | 1745 (132322)   | 21.18         | 20.96 | 20.80 |       |
|                 |                  | 1717.5 (132047) | 21.09         | 20.82 | 20.90 |       |
|                 | 36RB-Low (0)     | 1772.5 (132597) | 20.73         | 20.84 | 20.90 |       |
|                 |                  | 1745 (132322)   | 20.95         | 20.74 | 21.03 |       |
|                 |                  | 1717.5 (132047) | 20.83         | 20.84 | 20.87 |       |
|                 | 75RB (0)         | 1772.5 (132597) | 20.77         | 20.65 | 20.92 |       |
|                 |                  | 1745 (132322)   | 20.92         | 20.70 | 20.93 |       |
|                 |                  | 1717.5 (132047) | 20.79         | 20.79 | 20.85 |       |
|                 | 20MHz            | 1RB-High (99)   | 1770 (132572) | 20.72 | 20.86 | 20.81 |
|                 |                  |                 | 1745 (132322) | 20.80 | 21.07 | 20.96 |
|                 |                  |                 | 1720 (132072) | 20.78 | 20.93 | 20.86 |
| 1RB-Middle (50) |                  | 1770 (132572)   | 20.91         | 21.11 | 21.09 |       |
|                 |                  | 1745 (132322)   | 20.98         | 21.22 | 21.11 |       |
|                 |                  | 1720 (132072)   | 20.91         | 21.14 | 21.01 |       |
| 1RB-Low (0)     |                  | 1770 (132572)   | 20.73         | 21.04 | 20.82 |       |
|                 |                  | 1745 (132322)   | 20.81         | 21.00 | 20.92 |       |

|                  |  |               |       |       |       |
|------------------|--|---------------|-------|-------|-------|
|                  |  | 1720 (132072) | 20.72 | 20.91 | 20.83 |
| 50RB-High (50)   |  | 1770 (132572) | 20.86 | 20.82 | 20.84 |
|                  |  | 1745 (132322) | 20.96 | 20.91 | 20.91 |
|                  |  | 1720 (132072) | 21.00 | 20.97 | 20.96 |
| 50RB-Middle (25) |  | 1770 (132572) | 20.97 | 20.94 | 20.93 |
|                  |  | 1745 (132322) | 21.03 | 20.98 | 20.97 |
|                  |  | 1720 (132072) | 20.97 | 20.93 | 20.95 |
| 50RB-Low (0)     |  | 1770 (132572) | 20.91 | 20.86 | 20.87 |
|                  |  | 1745 (132322) | 20.97 | 20.92 | 20.93 |
|                  |  | 1720 (132072) | 20.79 | 20.80 | 20.79 |
| 100RB (0)        |  | 1770 (132572) | 20.86 | 20.82 | 20.83 |
|                  |  | 1745 (132322) | 20.94 | 20.87 | 20.87 |
|                  |  | 1720 (132072) | 20.87 | 20.81 | 20.81 |

**LTE Band66 ANT1 (DSI4)**

| BANDWIDTH | Number of RBs  | Frequency       | QPSK  | 16QAM | 64QAM |
|-----------|----------------|-----------------|-------|-------|-------|
| 1.4MHz    | 1RB-High (5)   | 1779.3 (132665) | 22.21 | 22.43 | 22.53 |
|           |                | 1745 (132322)   | 22.41 | 22.62 | 22.67 |
|           |                | 1710.7 (131979) | 22.24 | 22.67 | 22.46 |
|           | 1RB-Middle (3) | 1779.3 (132665) | 22.51 | 22.69 | 22.80 |
|           |                | 1745 (132322)   | 22.71 | 22.86 | 22.72 |
|           |                | 1710.7 (131979) | 22.47 | 22.66 | 22.69 |
|           | 1RB-Low (0)    | 1779.3 (132665) | 22.25 | 22.66 | 22.40 |
|           |                | 1745 (132322)   | 22.36 | 22.53 | 22.40 |
|           |                | 1710.7 (131979) | 22.42 | 22.65 | 22.63 |
|           | 3RB-High (3)   | 1779.3 (132665) | 22.39 | 22.57 | 22.34 |
|           |                | 1745 (132322)   | 22.48 | 22.73 | 22.74 |
|           |                | 1710.7 (131979) | 22.51 | 22.60 | 22.59 |
|           | 3RB-Middle (1) | 1779.3 (132665) | 22.33 | 22.83 | 22.47 |
|           |                | 1745 (132322)   | 22.75 | 22.60 | 22.85 |
|           |                | 1710.7 (131979) | 22.49 | 22.60 | 22.73 |
|           | 3RB-Low (0)    | 1779.3 (132665) | 22.39 | 22.38 | 22.50 |
|           |                | 1745 (132322)   | 22.27 | 22.78 | 22.46 |
|           |                | 1710.7 (131979) | 22.34 | 22.60 | 22.70 |
|           | 6RB (0)        | 1779.3 (132665) | 22.38 | 22.24 | 21.38 |
|           |                | 1745 (132322)   | 22.47 | 22.33 | 21.34 |
|           |                | 1710.7 (131979) | 22.35 | 22.54 | 21.45 |
| 3MHz      | 1RB-High (14)  | 1778.5 (132657) | 22.36 | 22.38 | 22.47 |
|           |                | 1745 (132322)   | 22.22 | 22.54 | 22.65 |
|           |                | 1711.5 (131987) | 22.41 | 22.72 | 22.73 |

|                 |                |                 |                 |       |       |       |
|-----------------|----------------|-----------------|-----------------|-------|-------|-------|
|                 | 1RB-Middle (7) | 1778.5 (132657) | 22.57           | 22.62 | 22.72 |       |
|                 |                | 1745 (132322)   | 22.69           | 22.65 | 22.70 |       |
|                 |                | 1711.5 (131987) | 22.62           | 22.93 | 22.70 |       |
|                 | 1RB-Low (0)    | 1778.5 (132657) | 22.48           | 22.43 | 22.37 |       |
|                 |                | 1745 (132322)   | 22.58           | 22.61 | 22.64 |       |
|                 |                | 1711.5 (131987) | 22.38           | 22.61 | 22.37 |       |
|                 | 8RB-High (7)   | 1778.5 (132657) | 22.49           | 22.27 | 21.29 |       |
|                 |                | 1745 (132322)   | 22.54           | 22.53 | 21.42 |       |
|                 |                | 1711.5 (131987) | 22.43           | 22.75 | 21.76 |       |
|                 | 8RB-Middle (4) | 1778.5 (132657) | 22.44           | 22.53 | 21.70 |       |
|                 |                | 1745 (132322)   | 22.57           | 22.56 | 21.68 |       |
|                 |                | 1711.5 (131987) | 22.71           | 22.63 | 21.54 |       |
|                 | 8RB-Low (0)    | 1778.5 (132657) | 22.42           | 22.52 | 21.53 |       |
|                 |                | 1745 (132322)   | 22.59           | 22.63 | 21.43 |       |
|                 |                | 1711.5 (131987) | 22.60           | 22.29 | 21.59 |       |
|                 | 15RB (0)       | 1778.5 (132657) | 22.30           | 22.22 | 21.59 |       |
|                 |                | 1745 (132322)   | 22.61           | 22.58 | 21.38 |       |
|                 |                | 1711.5 (131987) | 22.49           | 22.59 | 21.41 |       |
|                 | 5MHz           | 1RB-High (24)   | 1777.5 (132647) | 22.48 | 22.54 | 22.64 |
|                 |                |                 | 1745 (132322)   | 22.52 | 22.72 | 22.57 |
|                 |                |                 | 1712.5 (131997) | 22.45 | 22.41 | 22.59 |
|                 |                | 1RB-Middle (12) | 1777.5 (132647) | 22.40 | 22.65 | 22.58 |
|                 |                |                 | 1745 (132322)   | 22.54 | 22.72 | 22.79 |
|                 |                |                 | 1712.5 (131997) | 22.39 | 22.73 | 22.70 |
| 1RB-Low (0)     |                | 1777.5 (132647) | 22.15           | 22.44 | 22.52 |       |
|                 |                | 1745 (132322)   | 22.46           | 22.80 | 22.61 |       |
|                 |                | 1712.5 (131997) | 22.51           | 22.47 | 22.64 |       |
| 12RB-High (13)  |                | 1777.5 (132647) | 22.41           | 22.50 | 21.58 |       |
|                 |                | 1745 (132322)   | 22.62           | 22.39 | 21.46 |       |
|                 |                | 1712.5 (131997) | 22.69           | 22.48 | 21.75 |       |
| 12RB-Middle (6) |                | 1777.5 (132647) | 22.57           | 22.55 | 21.67 |       |
|                 |                | 1745 (132322)   | 22.40           | 22.47 | 21.51 |       |
|                 |                | 1712.5 (131997) | 22.55           | 22.67 | 21.63 |       |
| 12RB-Low (0)    |                | 1777.5 (132647) | 22.31           | 22.37 | 21.53 |       |
|                 |                | 1745 (132322)   | 22.43           | 22.57 | 21.54 |       |
|                 |                | 1712.5 (131997) | 22.45           | 22.56 | 21.39 |       |
| 25RB (0)        |                | 1777.5 (132647) | 22.54           | 22.35 | 21.45 |       |
|                 |                | 1745 (132322)   | 22.55           | 22.37 | 21.51 |       |
|                 |                | 1712.5 (131997) | 22.44           | 22.53 | 21.43 |       |
| 10MHz           |                | 1RB-High (49)   | 1775 (132622)   | 22.26 | 22.35 | 22.46 |
|                 |                |                 | 1745 (132322)   | 22.38 | 22.54 | 22.60 |

|          |                  |                 |       |       |       |
|----------|------------------|-----------------|-------|-------|-------|
|          |                  | 1715 (132022)   | 22.46 | 22.44 | 22.73 |
|          | 1RB-Middle (24)  | 1775 (132622)   | 22.37 | 22.87 | 22.80 |
|          |                  | 1745 (132322)   | 22.66 | 22.71 | 22.85 |
|          |                  | 1715 (132022)   | 22.44 | 22.69 | 22.92 |
|          | 1RB-Low (0)      | 1775 (132622)   | 22.22 | 22.46 | 22.62 |
|          |                  | 1745 (132322)   | 22.45 | 22.62 | 22.74 |
|          |                  | 1715 (132022)   | 22.37 | 22.74 | 22.51 |
|          | 25RB-High (25)   | 1775 (132622)   | 22.32 | 22.26 | 21.60 |
|          |                  | 1745 (132322)   | 22.41 | 22.66 | 21.69 |
|          |                  | 1715 (132022)   | 22.56 | 22.48 | 21.63 |
|          | 25RB-Middle (12) | 1775 (132622)   | 22.64 | 22.45 | 21.41 |
|          |                  | 1745 (132322)   | 22.59 | 22.39 | 21.66 |
|          |                  | 1715 (132022)   | 22.39 | 22.72 | 21.52 |
|          | 25RB-Low (0)     | 1775 (132622)   | 22.27 | 22.41 | 21.62 |
|          |                  | 1745 (132322)   | 22.37 | 22.59 | 21.40 |
|          |                  | 1715 (132022)   | 22.44 | 22.59 | 21.63 |
|          | 50RB (0)         | 1775 (132622)   | 22.40 | 22.23 | 21.51 |
|          |                  | 1745 (132322)   | 22.59 | 22.41 | 21.60 |
|          |                  | 1715 (132022)   | 22.36 | 22.39 | 21.65 |
| 15MHz    | 1RB-High (74)    | 1772.5 (132597) | 22.32 | 22.49 | 22.64 |
|          |                  | 1745 (132322)   | 22.33 | 22.71 | 22.42 |
|          |                  | 1717.5 (132047) | 22.58 | 22.60 | 22.48 |
|          | 1RB-Middle (37)  | 1772.5 (132597) | 22.48 | 22.65 | 22.59 |
|          |                  | 1745 (132322)   | 22.67 | 22.58 | 22.60 |
|          |                  | 1717.5 (132047) | 22.54 | 22.72 | 22.67 |
|          | 1RB-Low (0)      | 1772.5 (132597) | 22.40 | 22.56 | 22.36 |
|          |                  | 1745 (132322)   | 22.39 | 22.82 | 22.51 |
|          |                  | 1717.5 (132047) | 22.51 | 22.48 | 22.65 |
|          | 36RB-High (38)   | 1772.5 (132597) | 22.30 | 22.23 | 21.39 |
|          |                  | 1745 (132322)   | 22.35 | 22.45 | 21.48 |
|          |                  | 1717.5 (132047) | 22.55 | 22.51 | 21.50 |
|          | 36RB-Middle (19) | 1772.5 (132597) | 22.41 | 22.51 | 21.56 |
|          |                  | 1745 (132322)   | 22.75 | 22.61 | 21.62 |
|          |                  | 1717.5 (132047) | 22.64 | 22.38 | 21.64 |
|          | 36RB-Low (0)     | 1772.5 (132597) | 22.26 | 22.52 | 21.54 |
|          |                  | 1745 (132322)   | 22.69 | 22.67 | 21.59 |
|          |                  | 1717.5 (132047) | 22.30 | 22.44 | 21.49 |
| 75RB (0) | 1772.5 (132597)  | 22.23           | 22.35 | 21.48 |       |
|          | 1745 (132322)    | 22.49           | 22.53 | 21.58 |       |
|          | 1717.5 (132047)  | 22.37           | 22.55 | 21.38 |       |
| 20MHz    | 1RB-High (99)    | 1770 (132572)   | 22.30 | 22.41 | 22.46 |

|  |                  |               |       |       |       |
|--|------------------|---------------|-------|-------|-------|
|  | 1RB-Middle (50)  | 1745 (132322) | 22.39 | 22.56 | 22.57 |
|  |                  | 1720 (132072) | 22.40 | 22.58 | 22.61 |
|  |                  | 1770 (132572) | 22.48 | 22.78 | 22.65 |
|  | 1RB-Low (0)      | 1745 (132322) | 22.59 | 22.75 | 22.72 |
|  |                  | 1720 (132072) | 22.56 | 22.78 | 22.79 |
|  |                  | 1770 (132572) | 22.33 | 22.52 | 22.50 |
|  | 50RB-High (50)   | 1745 (132322) | 22.40 | 22.67 | 22.56 |
|  |                  | 1720 (132072) | 22.33 | 22.62 | 22.53 |
|  |                  | 1770 (132572) | 22.39 | 22.38 | 21.42 |
|  | 50RB-Middle (25) | 1745 (132322) | 22.48 | 22.49 | 21.53 |
|  |                  | 1720 (132072) | 22.55 | 22.57 | 21.61 |
|  |                  | 1770 (132572) | 22.54 | 22.51 | 21.53 |
|  | 50RB-Low (0)     | 1745 (132322) | 22.58 | 22.54 | 21.59 |
|  |                  | 1720 (132072) | 22.55 | 22.56 | 21.56 |
|  |                  | 1770 (132572) | 22.44 | 22.44 | 21.46 |
|  | 100RB (0)        | 1745 (132322) | 22.55 | 22.54 | 21.56 |
|  |                  | 1720 (132072) | 22.42 | 22.43 | 21.46 |
|  |                  | 1770 (132572) | 22.41 | 22.39 | 21.42 |
|  | 100RB (0)        | 1745 (132322) | 22.48 | 22.46 | 21.48 |
|  |                  | 1720 (132072) | 22.49 | 22.49 | 21.50 |
|  |                  | 1770 (132572) | 22.41 | 22.39 | 21.42 |

**LTE Band66 ANT1 (DSI5)**

| BANDWIDTH | Number of RBs  | Frequency       | QPSK  | 16QAM | 64QAM |
|-----------|----------------|-----------------|-------|-------|-------|
| 1.4MHz    | 1RB-High (5)   | 1779.3 (132665) | 17.18 | 17.56 | 17.69 |
|           |                | 1745 (132322)   | 17.54 | 17.62 | 17.55 |
|           |                | 1710.7 (131979) | 17.39 | 17.61 | 17.53 |
|           | 1RB-Middle (3) | 1779.3 (132665) | 17.56 | 18.00 | 17.72 |
|           |                | 1745 (132322)   | 17.57 | 17.99 | 17.73 |
|           |                | 1710.7 (131979) | 17.58 | 17.75 | 17.85 |
|           | 1RB-Low (0)    | 1779.3 (132665) | 17.16 | 17.65 | 17.43 |
|           |                | 1745 (132322)   | 17.33 | 17.73 | 17.68 |
|           |                | 1710.7 (131979) | 17.37 | 17.82 | 17.63 |
|           | 3RB-High (3)   | 1779.3 (132665) | 17.19 | 17.59 | 17.45 |
|           |                | 1745 (132322)   | 17.53 | 17.52 | 17.43 |
|           |                | 1710.7 (131979) | 17.56 | 17.46 | 17.69 |
|           | 3RB-Middle (1) | 1779.3 (132665) | 17.46 | 17.92 | 17.82 |
|           |                | 1745 (132322)   | 17.57 | 17.75 | 17.65 |
|           |                | 1710.7 (131979) | 17.51 | 17.85 | 17.71 |
|           | 3RB-Low (0)    | 1779.3 (132665) | 17.36 | 17.63 | 17.66 |
|           |                | 1745 (132322)   | 17.27 | 17.55 | 17.63 |

|      |                 |                 |       |       |       |
|------|-----------------|-----------------|-------|-------|-------|
|      |                 | 1710.7 (131979) | 17.33 | 17.77 | 17.63 |
|      | 6RB (0)         | 1779.3 (132665) | 17.24 | 17.51 | 17.24 |
|      |                 | 1745 (132322)   | 17.50 | 17.47 | 17.36 |
|      |                 | 1710.7 (131979) | 17.41 | 17.41 | 17.34 |
| 3MHz | 1RB-High (14)   | 1778.5 (132657) | 17.43 | 17.68 | 17.71 |
|      |                 | 1745 (132322)   | 17.49 | 17.40 | 17.58 |
|      |                 | 1711.5 (131987) | 17.32 | 17.72 | 17.54 |
|      | 1RB-Middle (7)  | 1778.5 (132657) | 17.42 | 17.91 | 17.54 |
|      |                 | 1745 (132322)   | 17.41 | 17.68 | 17.79 |
|      |                 | 1711.5 (131987) | 17.50 | 17.92 | 17.68 |
|      | 1RB-Low (0)     | 1778.5 (132657) | 17.37 | 17.52 | 17.58 |
|      |                 | 1745 (132322)   | 17.43 | 17.79 | 17.68 |
|      |                 | 1711.5 (131987) | 17.13 | 17.72 | 17.64 |
|      | 8RB-High (7)    | 1778.5 (132657) | 17.27 | 17.46 | 17.45 |
|      |                 | 1745 (132322)   | 17.48 | 17.55 | 17.45 |
|      |                 | 1711.5 (131987) | 17.64 | 17.71 | 17.49 |
|      | 8RB-Middle (4)  | 1778.5 (132657) | 17.46 | 17.41 | 17.40 |
|      |                 | 1745 (132322)   | 17.72 | 17.39 | 17.63 |
|      |                 | 1711.5 (131987) | 17.65 | 17.72 | 17.63 |
|      | 8RB-Low (0)     | 1778.5 (132657) | 17.38 | 17.41 | 17.36 |
|      |                 | 1745 (132322)   | 17.55 | 17.55 | 17.42 |
|      |                 | 1711.5 (131987) | 17.53 | 17.40 | 17.31 |
|      | 15RB (0)        | 1778.5 (132657) | 17.50 | 17.24 | 17.30 |
|      |                 | 1745 (132322)   | 17.63 | 17.41 | 17.32 |
|      |                 | 1711.5 (131987) | 17.67 | 17.55 | 17.61 |
| 5MHz | 1RB-High (24)   | 1777.5 (132647) | 17.17 | 17.74 | 17.71 |
|      |                 | 1745 (132322)   | 17.44 | 17.76 | 17.41 |
|      |                 | 1712.5 (131997) | 17.50 | 17.76 | 17.39 |
|      | 1RB-Middle (12) | 1777.5 (132647) | 17.58 | 17.99 | 17.67 |
|      |                 | 1745 (132322)   | 17.61 | 17.98 | 17.60 |
|      |                 | 1712.5 (131997) | 17.39 | 17.87 | 17.69 |
|      | 1RB-Low (0)     | 1777.5 (132647) | 17.36 | 17.68 | 17.48 |
|      |                 | 1745 (132322)   | 17.26 | 17.64 | 17.41 |
|      |                 | 1712.5 (131997) | 17.47 | 17.65 | 17.47 |
|      | 12RB-High (13)  | 1777.5 (132647) | 17.40 | 17.46 | 17.26 |
|      |                 | 1745 (132322)   | 17.69 | 17.55 | 17.68 |
|      |                 | 1712.5 (131997) | 17.37 | 17.72 | 17.55 |
|      | 12RB-Middle (6) | 1777.5 (132647) | 17.40 | 17.45 | 17.65 |
|      |                 | 1745 (132322)   | 17.52 | 17.48 | 17.68 |
|      |                 | 1712.5 (131997) | 17.43 | 17.65 | 17.58 |
|      | 12RB-Low (0)    | 1777.5 (132647) | 17.64 | 17.25 | 17.35 |

|                  |                  |                 |                 |       |       |       |
|------------------|------------------|-----------------|-----------------|-------|-------|-------|
|                  | 25RB (0)         | 1745 (132322)   | 17.42           | 17.60 | 17.56 |       |
|                  |                  | 1712.5 (131997) | 17.38           | 17.26 | 17.38 |       |
|                  |                  | 1777.5 (132647) | 17.53           | 17.30 | 17.39 |       |
|                  |                  | 1745 (132322)   | 17.31           | 17.42 | 17.58 |       |
|                  |                  | 1712.5 (131997) | 17.45           | 17.56 | 17.61 |       |
| 10MHz            | 1RB-High (49)    | 1775 (132622)   | 17.24           | 17.42 | 17.68 |       |
|                  |                  | 1745 (132322)   | 17.35           | 17.52 | 17.57 |       |
|                  |                  | 1715 (132022)   | 17.30           | 17.50 | 17.37 |       |
|                  | 1RB-Middle (24)  | 1775 (132622)   | 17.29           | 17.77 | 17.53 |       |
|                  |                  | 1745 (132322)   | 17.40           | 17.89 | 17.90 |       |
|                  |                  | 1715 (132022)   | 17.58           | 17.84 | 17.99 |       |
|                  | 1RB-Low (0)      | 1775 (132622)   | 17.28           | 17.56 | 17.44 |       |
|                  |                  | 1745 (132322)   | 17.31           | 17.79 | 17.57 |       |
|                  |                  | 1715 (132022)   | 17.34           | 17.58 | 17.59 |       |
|                  | 25RB-High (25)   | 1775 (132622)   | 17.45           | 17.47 | 17.38 |       |
|                  |                  | 1745 (132322)   | 17.34           | 17.66 | 17.34 |       |
|                  |                  | 1715 (132022)   | 17.59           | 17.74 | 17.77 |       |
|                  | 25RB-Middle (12) | 1775 (132622)   | 17.59           | 17.65 | 17.57 |       |
|                  |                  | 1745 (132322)   | 17.67           | 17.58 | 17.64 |       |
|                  |                  | 1715 (132022)   | 17.72           | 17.73 | 17.43 |       |
|                  | 25RB-Low (0)     | 1775 (132622)   | 17.48           | 17.26 | 17.37 |       |
|                  |                  | 1745 (132322)   | 17.59           | 17.48 | 17.63 |       |
|                  |                  | 1715 (132022)   | 17.31           | 17.48 | 17.38 |       |
|                  | 50RB (0)         | 1775 (132622)   | 17.48           | 17.34 | 17.59 |       |
|                  |                  | 1745 (132322)   | 17.66           | 17.49 | 17.35 |       |
|                  |                  | 1715 (132022)   | 17.53           | 17.60 | 17.66 |       |
|                  | 15MHz            | 1RB-High (74)   | 1772.5 (132597) | 17.31 | 17.46 | 17.70 |
|                  |                  |                 | 1745 (132322)   | 17.45 | 17.47 | 17.54 |
|                  |                  |                 | 1717.5 (132047) | 17.51 | 17.45 | 17.65 |
| 1RB-Middle (37)  |                  | 1772.5 (132597) | 17.31           | 17.75 | 17.82 |       |
|                  |                  | 1745 (132322)   | 17.72           | 17.65 | 17.67 |       |
|                  |                  | 1717.5 (132047) | 17.37           | 17.79 | 17.88 |       |
| 1RB-Low (0)      |                  | 1772.5 (132597) | 17.49           | 17.61 | 17.47 |       |
|                  |                  | 1745 (132322)   | 17.21           | 17.66 | 17.51 |       |
|                  |                  | 1717.5 (132047) | 17.35           | 17.49 | 17.39 |       |
| 36RB-High (38)   |                  | 1772.5 (132597) | 17.36           | 17.47 | 17.57 |       |
|                  |                  | 1745 (132322)   | 17.68           | 17.53 | 17.38 |       |
|                  |                  | 1717.5 (132047) | 17.52           | 17.54 | 17.48 |       |
| 36RB-Middle (19) |                  | 1772.5 (132597) | 17.63           | 17.60 | 17.62 |       |
|                  |                  | 1745 (132322)   | 17.56           | 17.46 | 17.40 |       |
|                  |                  | 1717.5 (132047) | 17.45           | 17.71 | 17.49 |       |



|       |                  |                 |       |       |       |
|-------|------------------|-----------------|-------|-------|-------|
|       | 36RB-Low (0)     | 1772.5 (132597) | 17.38 | 17.38 | 17.55 |
|       |                  | 1745 (132322)   | 17.72 | 17.34 | 17.37 |
|       |                  | 1717.5 (132047) | 17.56 | 17.40 | 17.29 |
|       | 75RB (0)         | 1772.5 (132597) | 17.48 | 17.34 | 17.59 |
|       |                  | 1745 (132322)   | 17.60 | 17.40 | 17.59 |
|       |                  | 1717.5 (132047) | 17.67 | 17.40 | 17.58 |
| 20MHz | 1RB-High (99)    | 1770 (132572)   | 17.28 | 17.57 | 17.54 |
|       |                  | 1745 (132322)   | 17.38 | 17.58 | 17.53 |
|       |                  | 1720 (132072)   | 17.40 | 17.63 | 17.55 |
|       | 1RB-Middle (50)  | 1770 (132572)   | 17.47 | 17.82 | 17.71 |
|       |                  | 1745 (132322)   | 17.56 | 17.82 | 17.72 |
|       |                  | 1720 (132072)   | 17.55 | 17.80 | 17.81 |
|       | 1RB-Low (0)      | 1770 (132572)   | 17.31 | 17.58 | 17.55 |
|       |                  | 1745 (132322)   | 17.38 | 17.70 | 17.59 |
|       |                  | 1720 (132072)   | 17.31 | 17.66 | 17.55 |
|       | 50RB-High (50)   | 1770 (132572)   | 17.44 | 17.40 | 17.43 |
|       |                  | 1745 (132322)   | 17.51 | 17.50 | 17.50 |
|       |                  | 1720 (132072)   | 17.52 | 17.61 | 17.63 |
|       | 50RB-Middle (25) | 1770 (132572)   | 17.53 | 17.52 | 17.51 |
|       |                  | 1745 (132322)   | 17.58 | 17.57 | 17.55 |
|       |                  | 1720 (132072)   | 17.56 | 17.55 | 17.59 |
|       | 50RB-Low (0)     | 1770 (132572)   | 17.46 | 17.43 | 17.44 |
|       |                  | 1745 (132322)   | 17.56 | 17.52 | 17.53 |
|       |                  | 1720 (132072)   | 17.45 | 17.44 | 17.44 |
|       | 100RB (0)        | 1770 (132572)   | 17.41 | 17.38 | 17.41 |
|       |                  | 1745 (132322)   | 17.48 | 17.46 | 17.47 |
|       |                  | 1720 (132072)   | 17.50 | 17.50 | 17.51 |

**LTE Band2 ANT4 (DSI1)**

| BANDWIDTH | Number of RBs  | Frequency      | QPSK  | 16QAM | 64QAM |
|-----------|----------------|----------------|-------|-------|-------|
| 1.4MHz    | 1RB-High (5)   | 1909.3 (19193) | 17.01 | 17.15 | 17.09 |
|           |                | 1880 (18900)   | 16.68 | 17.03 | 16.82 |
|           |                | 1850.7 (18607) | 16.88 | 17.20 | 16.91 |
|           | 1RB-Middle (3) | 1909.3 (19193) | 17.13 | 17.10 | 17.08 |
|           |                | 1880 (18900)   | 17.02 | 17.17 | 17.04 |
|           |                | 1850.7 (18607) | 17.08 | 16.93 | 16.92 |
|           | 1RB-Low (0)    | 1909.3 (19193) | 16.89 | 17.11 | 17.15 |
|           |                | 1880 (18900)   | 16.91 | 16.94 | 17.20 |
|           |                | 1850.7 (18607) | 16.76 | 17.26 | 17.03 |
|           | 3RB-High (3)   | 1909.3 (19193) | 16.90 | 17.10 | 16.81 |
|           |                | 1880 (18900)   | 16.96 | 16.93 | 16.75 |

|                |                 |                |                |       |       |       |
|----------------|-----------------|----------------|----------------|-------|-------|-------|
|                | 3RB-Middle (1)  | 1850.7 (18607) | 16.84          | 17.01 | 16.97 |       |
|                |                 | 1909.3 (19193) | 16.94          | 17.13 | 16.87 |       |
|                |                 | 1880 (18900)   | 17.09          | 16.97 | 16.98 |       |
|                |                 | 1850.7 (18607) | 17.06          | 17.07 | 17.14 |       |
|                | 3RB-Low (0)     | 1909.3 (19193) | 16.89          | 17.16 | 17.13 |       |
|                |                 | 1880 (18900)   | 16.79          | 16.89 | 17.16 |       |
|                |                 | 1850.7 (18607) | 17.07          | 17.14 | 16.82 |       |
|                | 6RB (0)         | 1909.3 (19193) | 17.00          | 17.04 | 16.97 |       |
|                |                 | 1880 (18900)   | 17.06          | 16.83 | 17.10 |       |
|                |                 | 1850.7 (18607) | 17.08          | 17.04 | 16.92 |       |
|                | 3MHz            | 1RB-High (14)  | 1908.5 (19185) | 16.83 | 17.13 | 16.85 |
|                |                 |                | 1880 (18900)   | 16.97 | 17.11 | 16.97 |
| 1851.5 (18615) |                 |                | 16.78          | 17.26 | 16.94 |       |
| 1RB-Middle (7) |                 | 1908.5 (19185) | 16.91          | 17.18 | 17.11 |       |
|                |                 | 1880 (18900)   | 16.99          | 17.20 | 17.20 |       |
|                |                 | 1851.5 (18615) | 17.16          | 16.85 | 17.15 |       |
| 1RB-Low (0)    |                 | 1908.5 (19185) | 16.87          | 17.05 | 16.87 |       |
|                |                 | 1880 (18900)   | 16.74          | 16.83 | 16.90 |       |
|                |                 | 1851.5 (18615) | 16.97          | 17.10 | 16.96 |       |
| 8RB-High (7)   |                 | 1908.5 (19185) | 17.17          | 17.00 | 17.19 |       |
|                |                 | 1880 (18900)   | 17.00          | 17.07 | 17.09 |       |
|                |                 | 1851.5 (18615) | 17.24          | 17.08 | 17.06 |       |
| 8RB-Middle (4) |                 | 1908.5 (19185) | 17.11          | 16.87 | 17.27 |       |
|                |                 | 1880 (18900)   | 17.14          | 17.23 | 17.23 |       |
|                |                 | 1851.5 (18615) | 17.20          | 17.17 | 17.11 |       |
| 8RB-Low (0)    |                 | 1908.5 (19185) | 17.16          | 17.04 | 16.95 |       |
|                |                 | 1880 (18900)   | 16.86          | 16.84 | 16.73 |       |
|                |                 | 1851.5 (18615) | 16.94          | 17.17 | 16.85 |       |
| 15RB (0)       |                 | 1908.5 (19185) | 17.22          | 17.08 | 17.20 |       |
|                |                 | 1880 (18900)   | 17.07          | 16.95 | 16.95 |       |
|                |                 | 1851.5 (18615) | 17.01          | 17.17 | 17.09 |       |
| 5MHz           |                 | 1RB-High (24)  | 1907.5 (19175) | 17.08 | 16.98 | 16.91 |
|                |                 |                | 1880 (18900)   | 17.02 | 16.89 | 16.84 |
|                |                 |                | 1852.5 (18625) | 17.01 | 17.26 | 16.87 |
|                | 1RB-Middle (12) | 1907.5 (19175) | 17.10          | 17.02 | 16.95 |       |
|                |                 | 1880 (18900)   | 17.18          | 17.06 | 16.88 |       |
|                |                 | 1852.5 (18625) | 17.23          | 17.18 | 16.88 |       |
|                | 1RB-Low (0)     | 1907.5 (19175) | 16.93          | 16.96 | 17.04 |       |
|                |                 | 1880 (18900)   | 16.89          | 16.88 | 16.93 |       |
|                |                 | 1852.5 (18625) | 17.10          | 17.18 | 16.83 |       |
|                | 12RB-High (13)  | 1907.5 (19175) | 17.05          | 17.22 | 17.16 |       |

|             |                  |                 |                |       |       |       |
|-------------|------------------|-----------------|----------------|-------|-------|-------|
|             | 12RB-Middle (6)  | 1880 (18900)    | 16.98          | 17.12 | 17.05 |       |
|             |                  | 1852.5 (18625)  | 17.30          | 17.13 | 16.93 |       |
|             |                  | 1907.5 (19175)  | 17.08          | 16.98 | 17.13 |       |
|             |                  | 1880 (18900)    | 17.32          | 17.05 | 17.00 |       |
|             |                  | 1852.5 (18625)  | 17.07          | 17.08 | 17.19 |       |
|             |                  | 1907.5 (19175)  | 16.94          | 17.05 | 17.14 |       |
|             | 12RB-Low (0)     | 1880 (18900)    | 16.99          | 16.97 | 17.00 |       |
|             |                  | 1852.5 (18625)  | 17.24          | 17.14 | 17.16 |       |
|             |                  | 1907.5 (19175)  | 17.16          | 17.05 | 17.08 |       |
|             | 25RB (0)         | 1880 (18900)    | 17.27          | 16.75 | 17.09 |       |
|             |                  | 1852.5 (18625)  | 17.21          | 17.22 | 17.08 |       |
|             |                  | 1905 (19150)    | 16.73          | 16.94 | 17.03 |       |
| 10MHz       | 1RB-High (49)    | 1880 (18900)    | 16.73          | 16.82 | 16.84 |       |
|             |                  | 1855 (18650)    | 16.97          | 17.10 | 16.86 |       |
|             |                  | 1905 (19150)    | 17.03          | 17.16 | 16.82 |       |
|             | 1RB-Middle (24)  | 1880 (18900)    | 17.06          | 17.16 | 17.13 |       |
|             |                  | 1855 (18650)    | 16.99          | 17.08 | 17.17 |       |
|             |                  | 1905 (19150)    | 16.97          | 17.16 | 17.14 |       |
|             | 1RB-Low (0)      | 1880 (18900)    | 16.71          | 16.85 | 16.92 |       |
|             |                  | 1855 (18650)    | 16.94          | 16.96 | 17.01 |       |
|             |                  | 1905 (19150)    | 17.04          | 17.11 | 16.93 |       |
|             | 25RB-High (25)   | 1880 (18900)    | 17.15          | 17.12 | 16.94 |       |
|             |                  | 1855 (18650)    | 16.95          | 16.90 | 16.91 |       |
|             |                  | 1905 (19150)    | 17.25          | 16.84 | 17.11 |       |
|             | 25RB-Middle (12) | 1880 (18900)    | 17.09          | 17.23 | 17.08 |       |
|             |                  | 1855 (18650)    | 17.27          | 16.91 | 17.21 |       |
|             |                  | 1905 (19150)    | 17.16          | 16.95 | 17.21 |       |
|             | 25RB-Low (0)     | 1880 (18900)    | 16.86          | 16.92 | 16.82 |       |
|             |                  | 1855 (18650)    | 17.07          | 16.86 | 17.03 |       |
|             |                  | 1905 (19150)    | 17.02          | 17.14 | 17.19 |       |
|             | 50RB (0)         | 1880 (18900)    | 17.30          | 16.83 | 16.76 |       |
|             |                  | 1855 (18650)    | 16.92          | 17.04 | 17.16 |       |
|             |                  | 1902.5 (19125)  | 16.79          | 17.04 | 16.95 |       |
|             | 15MHz            | 1RB-High (74)   | 1880 (18900)   | 16.98 | 16.85 | 16.86 |
|             |                  |                 | 1857.5 (18675) | 16.90 | 16.93 | 17.07 |
|             |                  |                 | 1902.5 (19125) | 16.91 | 17.19 | 17.04 |
|             |                  | 1RB-Middle (37) | 1880 (18900)   | 17.10 | 17.08 | 17.13 |
|             |                  |                 | 1857.5 (18675) | 17.18 | 16.92 | 17.06 |
|             |                  |                 | 1902.5 (19125) | 16.92 | 17.07 | 17.07 |
| 1RB-Low (0) |                  | 1880 (18900)    | 17.00          | 17.03 | 16.89 |       |
|             |                  | 1857.5 (18675)  | 16.88          | 17.09 | 17.04 |       |

|       |                  |                |       |       |       |
|-------|------------------|----------------|-------|-------|-------|
|       | 36RB-High (38)   | 1902.5 (19125) | 16.93 | 17.00 | 17.07 |
|       |                  | 1880 (18900)   | 16.85 | 16.92 | 17.11 |
|       |                  | 1857.5 (18675) | 16.94 | 17.22 | 17.00 |
|       | 36RB-Middle (19) | 1902.5 (19125) | 17.25 | 17.12 | 17.14 |
|       |                  | 1880 (18900)   | 17.08 | 16.88 | 17.02 |
|       |                  | 1857.5 (18675) | 17.11 | 17.23 | 17.21 |
|       | 36RB-Low (0)     | 1902.5 (19125) | 17.22 | 16.91 | 16.95 |
|       |                  | 1880 (18900)   | 17.06 | 16.90 | 16.80 |
|       |                  | 1857.5 (18675) | 17.26 | 16.96 | 16.91 |
|       | 75RB (0)         | 1902.5 (19125) | 17.06 | 16.92 | 16.92 |
|       |                  | 1880 (18900)   | 17.26 | 16.88 | 16.98 |
|       |                  | 1857.5 (18675) | 17.05 | 17.16 | 17.11 |
| 20MHz | 1RB-High (99)    | 1900 (19100)   | 16.91 | 16.98 | 16.92 |
|       |                  | 1880 (18900)   | 16.84 | 17.00 | 16.92 |
|       |                  | 1860 (18700)   | 16.89 | 17.09 | 16.97 |
|       | 1RB-Middle (50)  | 1900 (19100)   | 17.08 | 17.08 | 16.99 |
|       |                  | 1880 (18900)   | 17.11 | 17.07 | 17.04 |
|       |                  | 1860 (18700)   | 17.10 | 17.00 | 17.06 |
|       | 1RB-Low (0)      | 1900 (19100)   | 16.86 | 17.05 | 16.98 |
|       |                  | 1880 (18900)   | 16.88 | 17.00 | 17.07 |
|       |                  | 1860 (18700)   | 16.93 | 17.10 | 16.98 |
|       | 50RB-High (50)   | 1900 (19100)   | 17.11 | 17.07 | 17.09 |
|       |                  | 1880 (18900)   | 17.03 | 17.00 | 17.00 |
|       |                  | 1860 (18700)   | 17.12 | 17.06 | 17.09 |
|       | 50RB-Middle (25) | 1900 (19100)   | 17.13 | 17.01 | 17.10 |
|       |                  | 1880 (18900)   | 17.14 | 17.06 | 17.09 |
|       |                  | 1860 (18700)   | 17.10 | 17.09 | 17.11 |
|       | 50RB-Low (0)     | 1900 (19100)   | 17.07 | 17.04 | 17.05 |
|       |                  | 1880 (18900)   | 16.93 | 16.90 | 16.91 |
|       |                  | 1860 (18700)   | 17.08 | 17.04 | 17.03 |
|       | 100RB (0)        | 1900 (19100)   | 17.10 | 17.04 | 17.05 |
|       |                  | 1880 (18900)   | 17.12 | 16.91 | 16.92 |
|       |                  | 1860 (18700)   | 17.08 | 17.04 | 17.03 |

**LTE Band2 ANT4 (DSI3)**

| BANDWIDTH | Number of RBs  | Frequency      | QPSK  | 16QAM | 64QAM |
|-----------|----------------|----------------|-------|-------|-------|
| 1.4MHz    | 1RB-High (5)   | 1909.3 (19193) | 20.90 | 21.59 | 21.28 |
|           |                | 1880 (18900)   | 21.15 | 21.19 | 21.39 |
|           |                | 1850.7 (18607) | 20.90 | 21.53 | 21.13 |
|           | 1RB-Middle (3) | 1909.3 (19193) | 21.39 | 21.47 | 21.40 |
|           |                | 1880 (18900)   | 21.39 | 21.79 | 21.34 |

|          |                 |                |       |       |       |
|----------|-----------------|----------------|-------|-------|-------|
|          |                 | 1850.7 (18607) | 21.26 | 21.76 | 21.75 |
|          | 1RB-Low (0)     | 1909.3 (19193) | 20.90 | 21.32 | 21.28 |
|          |                 | 1880 (18900)   | 21.01 | 21.46 | 21.49 |
|          |                 | 1850.7 (18607) | 21.20 | 21.44 | 21.27 |
|          | 3RB-High (3)    | 1909.3 (19193) | 21.02 | 21.38 | 21.24 |
|          |                 | 1880 (18900)   | 21.04 | 21.20 | 21.17 |
|          |                 | 1850.7 (18607) | 21.09 | 21.45 | 21.46 |
|          | 3RB-Middle (1)  | 1909.3 (19193) | 21.47 | 21.61 | 21.38 |
|          |                 | 1880 (18900)   | 21.54 | 21.70 | 21.33 |
|          |                 | 1850.7 (18607) | 21.23 | 21.77 | 21.57 |
|          | 3RB-Low (0)     | 1909.3 (19193) | 20.87 | 21.34 | 21.31 |
|          |                 | 1880 (18900)   | 21.16 | 21.38 | 21.52 |
|          |                 | 1850.7 (18607) | 20.99 | 21.49 | 21.22 |
|          | 6RB (0)         | 1909.3 (19193) | 21.18 | 21.33 | 21.10 |
|          |                 | 1880 (18900)   | 21.00 | 21.19 | 21.30 |
|          |                 | 1850.7 (18607) | 21.51 | 21.44 | 21.42 |
| 3MHz     | 1RB-High (14)   | 1908.5 (19185) | 20.91 | 21.27 | 21.08 |
|          |                 | 1880 (18900)   | 20.96 | 21.28 | 21.33 |
|          |                 | 1851.5 (18615) | 21.00 | 21.34 | 21.29 |
|          | 1RB-Middle (7)  | 1908.5 (19185) | 21.40 | 21.64 | 21.55 |
|          |                 | 1880 (18900)   | 21.30 | 21.77 | 21.63 |
|          |                 | 1851.5 (18615) | 21.49 | 21.70 | 21.65 |
|          | 1RB-Low (0)     | 1908.5 (19185) | 21.03 | 21.15 | 21.40 |
|          |                 | 1880 (18900)   | 21.20 | 21.41 | 21.29 |
|          |                 | 1851.5 (18615) | 21.31 | 21.41 | 21.20 |
|          | 8RB-High (7)    | 1908.5 (19185) | 21.38 | 21.24 | 21.36 |
|          |                 | 1880 (18900)   | 21.19 | 21.30 | 21.19 |
|          |                 | 1851.5 (18615) | 21.16 | 21.36 | 21.44 |
|          | 8RB-Middle (4)  | 1908.5 (19185) | 21.28 | 21.37 | 21.31 |
|          |                 | 1880 (18900)   | 21.35 | 21.16 | 21.14 |
|          |                 | 1851.5 (18615) | 21.24 | 21.50 | 21.37 |
|          | 8RB-Low (0)     | 1908.5 (19185) | 21.28 | 21.30 | 21.22 |
|          |                 | 1880 (18900)   | 21.11 | 21.18 | 21.22 |
|          |                 | 1851.5 (18615) | 21.20 | 21.31 | 21.42 |
| 15RB (0) | 1908.5 (19185)  | 21.27          | 21.11 | 21.15 |       |
|          | 1880 (18900)    | 21.08          | 21.27 | 21.08 |       |
|          | 1851.5 (18615)  | 21.27          | 21.39 | 21.21 |       |
| 5MHz     | 1RB-High (24)   | 1907.5 (19175) | 21.18 | 21.28 | 21.18 |
|          |                 | 1880 (18900)   | 20.98 | 21.16 | 21.15 |
|          |                 | 1852.5 (18625) | 20.90 | 21.49 | 21.27 |
|          | 1RB-Middle (12) | 1907.5 (19175) | 21.38 | 21.68 | 21.66 |

|                  |                 |                |                |       |       |       |
|------------------|-----------------|----------------|----------------|-------|-------|-------|
|                  | 1RB-Low (0)     | 1880 (18900)   | 21.49          | 21.71 | 21.59 |       |
|                  |                 | 1852.5 (18625) | 21.51          | 21.79 | 21.45 |       |
|                  |                 | 1907.5 (19175) | 21.17          | 21.39 | 21.31 |       |
|                  | 12RB-High (13)  | 1880 (18900)   | 21.14          | 21.55 | 21.48 |       |
|                  |                 | 1852.5 (18625) | 21.05          | 21.55 | 21.31 |       |
|                  |                 | 1907.5 (19175) | 21.23          | 21.23 | 21.16 |       |
|                  | 12RB-Middle (6) | 1880 (18900)   | 21.30          | 21.34 | 21.38 |       |
|                  |                 | 1852.5 (18625) | 21.25          | 21.21 | 21.39 |       |
|                  |                 | 1907.5 (19175) | 21.51          | 21.29 | 21.15 |       |
|                  | 12RB-Low (0)    | 1880 (18900)   | 21.42          | 21.44 | 21.34 |       |
|                  |                 | 1852.5 (18625) | 21.40          | 21.25 | 21.53 |       |
|                  |                 | 1907.5 (19175) | 21.14          | 21.09 | 21.37 |       |
|                  | 25RB (0)        | 1880 (18900)   | 21.19          | 21.13 | 21.29 |       |
|                  |                 | 1852.5 (18625) | 21.18          | 21.22 | 21.38 |       |
|                  |                 | 1907.5 (19175) | 21.28          | 21.29 | 21.28 |       |
|                  | 10MHz           | 1RB-High (49)  | 1880 (18900)   | 21.15 | 21.00 | 21.24 |
|                  |                 |                | 1852.5 (18625) | 21.20 | 21.33 | 21.45 |
|                  |                 |                | 1905 (19150)   | 20.90 | 21.34 | 21.32 |
| 1RB-Middle (24)  |                 | 1880 (18900)   | 21.17          | 21.23 | 21.30 |       |
|                  |                 | 1855 (18650)   | 21.13          | 21.52 | 21.34 |       |
|                  |                 | 1905 (19150)   | 21.26          | 21.71 | 21.67 |       |
| 1RB-Low (0)      |                 | 1880 (18900)   | 21.36          | 21.74 | 21.40 |       |
|                  |                 | 1855 (18650)   | 21.31          | 21.80 | 21.59 |       |
|                  |                 | 1905 (19150)   | 20.87          | 21.15 | 21.27 |       |
| 25RB-High (25)   |                 | 1880 (18900)   | 21.00          | 21.32 | 21.30 |       |
|                  |                 | 1855 (18650)   | 21.33          | 21.33 | 21.26 |       |
|                  |                 | 1905 (19150)   | 21.21          | 21.47 | 21.23 |       |
| 25RB-Middle (12) |                 | 1880 (18900)   | 21.38          | 21.23 | 21.38 |       |
|                  |                 | 1855 (18650)   | 21.43          | 21.19 | 21.42 |       |
|                  |                 | 1905 (19150)   | 21.16          | 21.24 | 21.28 |       |
| 25RB-Low (0)     |                 | 1880 (18900)   | 21.44          | 21.23 | 21.44 |       |
|                  |                 | 1855 (18650)   | 21.29          | 21.47 | 21.53 |       |
|                  |                 | 1905 (19150)   | 21.10          | 21.30 | 21.35 |       |
| 50RB (0)         | 1880 (18900)    | 21.24          | 20.96          | 20.95 |       |       |
|                  | 1855 (18650)    | 21.49          | 21.51          | 21.40 |       |       |
|                  | 1905 (19150)    | 21.25          | 21.29          | 21.23 |       |       |
| 15MHz            | 1RB-High (74)   | 1880 (18900)   | 21.12          | 21.29 | 21.05 |       |
|                  |                 | 1855 (18650)   | 21.50          | 21.23 | 21.36 |       |
|                  |                 | 1902.5 (19125) | 21.21          | 21.36 | 21.10 |       |
|                  |                 | 1880 (18900)   | 21.01          | 21.36 | 21.19 |       |
|                  |                 | 1857.5 (18675) | 21.13          | 21.56 | 21.22 |       |

|       |                  |                |       |       |       |
|-------|------------------|----------------|-------|-------|-------|
|       | 1RB-Middle (37)  | 1902.5 (19125) | 21.32 | 21.47 | 21.52 |
|       |                  | 1880 (18900)   | 21.41 | 21.69 | 21.27 |
|       |                  | 1857.5 (18675) | 21.39 | 21.59 | 21.54 |
|       | 1RB-Low (0)      | 1902.5 (19125) | 21.17 | 21.14 | 21.15 |
|       |                  | 1880 (18900)   | 21.25 | 21.27 | 21.44 |
|       |                  | 1857.5 (18675) | 21.16 | 21.35 | 21.41 |
|       | 36RB-High (38)   | 1902.5 (19125) | 21.15 | 21.36 | 21.45 |
|       |                  | 1880 (18900)   | 21.41 | 21.37 | 21.08 |
|       |                  | 1857.5 (18675) | 21.43 | 21.28 | 21.22 |
|       | 36RB-Middle (19) | 1902.5 (19125) | 21.39 | 21.49 | 21.32 |
|       |                  | 1880 (18900)   | 21.45 | 21.30 | 21.38 |
|       |                  | 1857.5 (18675) | 21.44 | 21.39 | 21.26 |
|       | 36RB-Low (0)     | 1902.5 (19125) | 21.22 | 21.14 | 21.32 |
|       |                  | 1880 (18900)   | 21.30 | 21.06 | 21.12 |
|       |                  | 1857.5 (18675) | 21.29 | 21.21 | 21.49 |
|       | 75RB (0)         | 1902.5 (19125) | 21.22 | 21.29 | 21.44 |
|       |                  | 1880 (18900)   | 21.14 | 21.02 | 21.10 |
|       |                  | 1857.5 (18675) | 21.29 | 21.44 | 21.35 |
| 20MHz | 1RB-High (99)    | 1900 (19100)   | 21.07 | 21.41 | 21.23 |
|       |                  | 1880 (18900)   | 21.03 | 21.31 | 21.32 |
|       |                  | 1860 (18700)   | 21.08 | 21.47 | 21.31 |
|       | 1RB-Middle (50)  | 1900 (19100)   | 21.33 | 21.61 | 21.56 |
|       |                  | 1880 (18900)   | 21.36 | 21.67 | 21.45 |
|       |                  | 1860 (18700)   | 21.34 | 21.72 | 21.57 |
|       | 1RB-Low (0)      | 1900 (19100)   | 21.03 | 21.28 | 21.24 |
|       |                  | 1880 (18900)   | 21.09 | 21.41 | 21.41 |
|       |                  | 1860 (18700)   | 21.16 | 21.42 | 21.36 |
|       | 50RB-High (50)   | 1900 (19100)   | 21.30 | 21.30 | 21.29 |
|       |                  | 1880 (18900)   | 21.24 | 21.19 | 21.20 |
|       |                  | 1860 (18700)   | 21.33 | 21.33 | 21.35 |
|       | 50RB-Middle (25) | 1900 (19100)   | 21.34 | 21.33 | 21.31 |
|       |                  | 1880 (18900)   | 21.38 | 21.31 | 21.31 |
|       |                  | 1860 (18700)   | 21.36 | 21.36 | 21.38 |
|       | 50RB-Low (0)     | 1900 (19100)   | 21.27 | 21.26 | 21.25 |
|       |                  | 1880 (18900)   | 21.13 | 21.09 | 21.12 |
|       |                  | 1860 (18700)   | 21.34 | 21.35 | 21.37 |
|       | 100RB (0)        | 1900 (19100)   | 21.28 | 21.26 | 21.26 |
|       |                  | 1880 (18900)   | 21.15 | 21.15 | 21.15 |
|       |                  | 1860 (18700)   | 21.33 | 21.33 | 21.35 |

## LTE Band2 ANT4 (DSI4)

| BANDWIDTH | Number of RBs  | Frequency      | QPSK  | 16QAM | 64QAM |
|-----------|----------------|----------------|-------|-------|-------|
| 1.4MHz    | 1RB-High (5)   | 1909.3 (19193) | 22.72 | 22.98 | 22.22 |
|           |                | 1880 (18900)   | 22.51 | 22.89 | 22.41 |
|           |                | 1850.7 (18607) | 22.76 | 22.86 | 22.40 |
|           | 1RB-Middle (3) | 1909.3 (19193) | 22.88 | 23.15 | 22.71 |
|           |                | 1880 (18900)   | 22.93 | 23.18 | 22.73 |
|           |                | 1850.7 (18607) | 22.89 | 22.99 | 22.69 |
|           | 1RB-Low (0)    | 1909.3 (19193) | 22.64 | 22.92 | 22.42 |
|           |                | 1880 (18900)   | 22.65 | 23.05 | 22.40 |
|           |                | 1850.7 (18607) | 22.86 | 23.04 | 22.22 |
|           | 3RB-High (3)   | 1909.3 (19193) | 22.80 | 22.74 | 22.40 |
|           |                | 1880 (18900)   | 22.60 | 22.93 | 22.36 |
|           |                | 1850.7 (18607) | 22.75 | 22.79 | 22.30 |
|           | 3RB-Middle (1) | 1909.3 (19193) | 22.89 | 22.96 | 22.68 |
|           |                | 1880 (18900)   | 22.82 | 23.12 | 22.51 |
|           |                | 1850.7 (18607) | 22.87 | 23.03 | 22.85 |
|           | 3RB-Low (0)    | 1909.3 (19193) | 22.68 | 22.95 | 22.56 |
|           |                | 1880 (18900)   | 22.70 | 22.97 | 22.24 |
|           |                | 1850.7 (18607) | 22.83 | 22.95 | 22.21 |
|           | 6RB (0)        | 1909.3 (19193) | 22.87 | 22.57 | 21.37 |
|           |                | 1880 (18900)   | 22.94 | 22.45 | 21.17 |
|           |                | 1850.7 (18607) | 23.00 | 22.45 | 21.42 |
| 3MHz      | 1RB-High (14)  | 1908.5 (19185) | 22.70 | 22.95 | 22.41 |
|           |                | 1880 (18900)   | 22.56 | 22.93 | 22.21 |
|           |                | 1851.5 (18615) | 22.85 | 22.86 | 22.31 |
|           | 1RB-Middle (7) | 1908.5 (19185) | 22.73 | 23.24 | 22.71 |
|           |                | 1880 (18900)   | 23.10 | 23.22 | 22.53 |
|           |                | 1851.5 (18615) | 22.91 | 23.30 | 22.51 |
|           | 1RB-Low (0)    | 1908.5 (19185) | 22.56 | 23.02 | 22.29 |
|           |                | 1880 (18900)   | 22.87 | 23.11 | 22.39 |
|           |                | 1851.5 (18615) | 22.76 | 22.97 | 22.32 |
|           | 8RB-High (7)   | 1908.5 (19185) | 22.84 | 22.30 | 21.36 |
|           |                | 1880 (18900)   | 22.93 | 22.47 | 21.34 |
|           |                | 1851.5 (18615) | 22.99 | 22.52 | 21.44 |
|           | 8RB-Middle (4) | 1908.5 (19185) | 22.94 | 22.37 | 21.45 |
|           |                | 1880 (18900)   | 23.12 | 22.46 | 21.63 |
|           |                | 1851.5 (18615) | 23.01 | 22.30 | 21.69 |
|           | 8RB-Low (0)    | 1908.5 (19185) | 22.82 | 22.26 | 21.34 |
|           |                | 1880 (18900)   | 22.57 | 22.40 | 21.41 |
|           |                | 1851.5 (18615) | 22.78 | 22.56 | 21.34 |



|                  |                 |                |              |       |       |       |
|------------------|-----------------|----------------|--------------|-------|-------|-------|
|                  | 15RB (0)        | 1908.5 (19185) | 22.83        | 22.39 | 21.46 |       |
|                  |                 | 1880 (18900)   | 22.81        | 22.26 | 21.17 |       |
|                  |                 | 1851.5 (18615) | 22.95        | 22.33 | 21.33 |       |
| 5MHz             | 1RB-High (24)   | 1907.5 (19175) | 22.68        | 22.98 | 22.28 |       |
|                  |                 | 1880 (18900)   | 22.52        | 22.97 | 22.44 |       |
|                  |                 | 1852.5 (18625) | 22.77        | 22.95 | 22.58 |       |
|                  | 1RB-Middle (12) | 1907.5 (19175) | 22.62        | 23.26 | 22.54 |       |
|                  |                 | 1880 (18900)   | 23.11        | 23.23 | 22.69 |       |
|                  |                 | 1852.5 (18625) | 23.10        | 23.16 | 22.62 |       |
|                  | 1RB-Low (0)     | 1907.5 (19175) | 22.87        | 23.06 | 22.31 |       |
|                  |                 | 1880 (18900)   | 22.55        | 23.17 | 22.28 |       |
|                  |                 | 1852.5 (18625) | 22.62        | 22.85 | 22.34 |       |
|                  | 12RB-High (13)  | 1907.5 (19175) | 22.93        | 22.36 | 21.41 |       |
|                  |                 | 1880 (18900)   | 22.81        | 22.52 | 21.49 |       |
|                  |                 | 1852.5 (18625) | 22.85        | 22.41 | 21.37 |       |
|                  | 12RB-Middle (6) | 1907.5 (19175) | 23.08        | 22.39 | 21.47 |       |
|                  |                 | 1880 (18900)   | 23.00        | 22.61 | 21.44 |       |
|                  |                 | 1852.5 (18625) | 22.94        | 22.42 | 21.68 |       |
|                  | 12RB-Low (0)    | 1907.5 (19175) | 22.93        | 22.35 | 21.56 |       |
|                  |                 | 1880 (18900)   | 22.61        | 22.35 | 21.51 |       |
|                  |                 | 1852.5 (18625) | 22.88        | 22.37 | 21.54 |       |
|                  | 25RB (0)        | 1907.5 (19175) | 22.78        | 22.41 | 21.56 |       |
|                  |                 | 1880 (18900)   | 22.90        | 22.26 | 21.27 |       |
|                  |                 | 1852.5 (18625) | 23.08        | 22.34 | 21.51 |       |
|                  | 10MHz           | 1RB-High (49)  | 1905 (19150) | 22.91 | 22.89 | 22.22 |
|                  |                 |                | 1880 (18900) | 22.68 | 23.09 | 22.25 |
|                  |                 |                | 1855 (18650) | 22.71 | 22.86 | 22.59 |
| 1RB-Middle (24)  |                 | 1905 (19150)   | 22.85        | 23.13 | 22.78 |       |
|                  |                 | 1880 (18900)   | 23.02        | 22.98 | 22.53 |       |
|                  |                 | 1855 (18650)   | 22.87        | 23.33 | 22.67 |       |
| 1RB-Low (0)      |                 | 1905 (19150)   | 22.88        | 23.07 | 22.49 |       |
|                  |                 | 1880 (18900)   | 22.83        | 23.16 | 22.38 |       |
|                  |                 | 1855 (18650)   | 22.84        | 22.93 | 22.43 |       |
| 25RB-High (25)   |                 | 1905 (19150)   | 22.93        | 22.37 | 21.34 |       |
|                  |                 | 1880 (18900)   | 22.97        | 22.41 | 21.54 |       |
|                  |                 | 1855 (18650)   | 22.92        | 22.55 | 21.36 |       |
| 25RB-Middle (12) |                 | 1905 (19150)   | 22.79        | 22.50 | 21.35 |       |
|                  |                 | 1880 (18900)   | 22.95        | 22.42 | 21.50 |       |
|                  |                 | 1855 (18650)   | 22.76        | 22.41 | 21.55 |       |
| 25RB-Low (0)     |                 | 1905 (19150)   | 22.77        | 22.24 | 21.34 |       |
|                  |                 | 1880 (18900)   | 22.57        | 22.38 | 21.17 |       |

|                  |                  |                |              |       |       |       |
|------------------|------------------|----------------|--------------|-------|-------|-------|
|                  |                  | 1855 (18650)   | 22.96        | 22.50 | 21.45 |       |
|                  | 50RB (0)         | 1905 (19150)   | 22.79        | 22.44 | 21.47 |       |
|                  |                  | 1880 (18900)   | 22.94        | 22.45 | 21.19 |       |
|                  |                  | 1855 (18650)   | 22.84        | 22.49 | 21.33 |       |
| 15MHz            | 1RB-High (74)    | 1902.5 (19125) | 22.77        | 22.86 | 22.21 |       |
|                  |                  | 1880 (18900)   | 22.82        | 22.94 | 22.55 |       |
|                  |                  | 1857.5 (18675) | 22.76        | 22.83 | 22.50 |       |
|                  | 1RB-Middle (37)  | 1902.5 (19125) | 22.78        | 23.04 | 22.68 |       |
|                  |                  | 1880 (18900)   | 22.79        | 23.13 | 22.65 |       |
|                  |                  | 1857.5 (18675) | 23.06        | 23.05 | 22.56 |       |
|                  | 1RB-Low (0)      | 1902.5 (19125) | 22.57        | 22.83 | 22.39 |       |
|                  |                  | 1880 (18900)   | 22.64        | 22.96 | 22.20 |       |
|                  |                  | 1857.5 (18675) | 22.74        | 22.83 | 22.41 |       |
|                  | 36RB-High (38)   | 1902.5 (19125) | 22.97        | 22.39 | 21.47 |       |
|                  |                  | 1880 (18900)   | 22.77        | 22.40 | 21.57 |       |
|                  |                  | 1857.5 (18675) | 22.75        | 22.47 | 21.33 |       |
|                  | 36RB-Middle (19) | 1902.5 (19125) | 23.08        | 22.37 | 21.59 |       |
|                  |                  | 1880 (18900)   | 22.84        | 22.29 | 21.50 |       |
|                  |                  | 1857.5 (18675) | 23.08        | 22.31 | 21.48 |       |
|                  | 36RB-Low (0)     | 1902.5 (19125) | 22.74        | 22.38 | 21.25 |       |
|                  |                  | 1880 (18900)   | 22.64        | 22.17 | 21.42 |       |
|                  |                  | 1857.5 (18675) | 22.80        | 22.22 | 21.41 |       |
|                  | 75RB (0)         | 1902.5 (19125) | 22.90        | 22.55 | 21.36 |       |
|                  |                  | 1880 (18900)   | 22.88        | 22.21 | 21.42 |       |
|                  |                  | 1857.5 (18675) | 22.87        | 22.38 | 21.41 |       |
|                  | 20MHz            | 1RB-High (99)  | 1900 (19100) | 22.75 | 22.89 | 22.34 |
|                  |                  |                | 1880 (18900) | 22.67 | 22.98 | 22.38 |
|                  |                  |                | 1860 (18700) | 22.72 | 22.97 | 22.48 |
| 1RB-Middle (50)  |                  | 1900 (19100)   | 22.73        | 23.13 | 22.63 |       |
|                  |                  | 1880 (18900)   | 22.94        | 23.05 | 22.62 |       |
|                  |                  | 1860 (18700)   | 22.92        | 23.17 | 22.67 |       |
| 1RB-Low (0)      |                  | 1900 (19100)   | 22.71        | 22.93 | 22.39 |       |
|                  |                  | 1880 (18900)   | 22.73        | 22.99 | 22.38 |       |
|                  |                  | 1860 (18700)   | 22.75        | 22.91 | 22.37 |       |
| 50RB-High (50)   |                  | 1900 (19100)   | 22.91        | 22.41 | 21.45 |       |
|                  |                  | 1880 (18900)   | 22.86        | 22.34 | 21.39 |       |
|                  |                  | 1860 (18700)   | 22.91        | 22.46 | 21.49 |       |
| 50RB-Middle (25) |                  | 1900 (19100)   | 22.90        | 22.46 | 21.51 |       |
|                  |                  | 1880 (18900)   | 22.95        | 22.44 | 21.49 |       |
|                  |                  | 1860 (18700)   | 22.94        | 22.46 | 21.52 |       |
| 50RB-Low (0)     | 1900 (19100)     | 22.89          | 22.39        | 21.42 |       |       |

|  |           |              |       |       |       |
|--|-----------|--------------|-------|-------|-------|
|  | 100RB (0) | 1880 (18900) | 22.75 | 22.26 | 21.33 |
|  |           | 1860 (18700) | 22.91 | 22.39 | 21.45 |
|  |           | 1900 (19100) | 22.87 | 22.39 | 21.43 |
|  |           | 1880 (18900) | 22.89 | 22.28 | 21.32 |
|  |           | 1860 (18700) | 22.91 | 22.40 | 21.46 |

**LTE Band2 ANT4 (DSI5)**

| BANDWIDTH | Number of RBs  | Frequency      | QPSK  | 16QAM | 64QAM |
|-----------|----------------|----------------|-------|-------|-------|
| 1.4MHz    | 1RB-High (5)   | 1909.3 (19193) | 19.44 | 19.54 | 19.54 |
|           |                | 1880 (18900)   | 19.09 | 19.51 | 19.23 |
|           |                | 1850.7 (18607) | 19.10 | 19.52 | 19.41 |
|           | 1RB-Middle (3) | 1909.3 (19193) | 19.60 | 19.74 | 19.54 |
|           |                | 1880 (18900)   | 19.30 | 19.83 | 19.63 |
|           |                | 1850.7 (18607) | 19.34 | 19.48 | 19.65 |
|           | 1RB-Low (0)    | 1909.3 (19193) | 19.10 | 19.47 | 19.56 |
|           |                | 1880 (18900)   | 19.32 | 19.73 | 19.63 |
|           |                | 1850.7 (18607) | 19.25 | 19.55 | 19.55 |
|           | 3RB-High (3)   | 1909.3 (19193) | 19.40 | 19.54 | 19.35 |
|           |                | 1880 (18900)   | 19.14 | 19.59 | 19.51 |
|           |                | 1850.7 (18607) | 19.33 | 19.78 | 19.42 |
|           | 3RB-Middle (1) | 1909.3 (19193) | 19.30 | 19.47 | 19.86 |
|           |                | 1880 (18900)   | 19.55 | 19.54 | 19.77 |
|           |                | 1850.7 (18607) | 19.40 | 19.60 | 19.71 |
|           | 3RB-Low (0)    | 1909.3 (19193) | 19.14 | 19.70 | 19.32 |
|           |                | 1880 (18900)   | 19.32 | 19.73 | 19.40 |
|           |                | 1850.7 (18607) | 19.19 | 19.42 | 19.50 |
|           | 6RB (0)        | 1909.3 (19193) | 19.39 | 19.34 | 19.35 |
|           |                | 1880 (18900)   | 19.22 | 19.20 | 19.18 |
|           |                | 1850.7 (18607) | 19.37 | 19.45 | 19.35 |
| 3MHz      | 1RB-High (14)  | 1908.5 (19185) | 19.34 | 19.39 | 19.27 |
|           |                | 1880 (18900)   | 19.05 | 19.42 | 19.28 |
|           |                | 1851.5 (18615) | 19.40 | 19.48 | 19.55 |
|           | 1RB-Middle (7) | 1908.5 (19185) | 19.32 | 19.51 | 19.78 |
|           |                | 1880 (18900)   | 19.28 | 19.78 | 19.68 |
|           |                | 1851.5 (18615) | 19.42 | 19.47 | 19.43 |
|           | 1RB-Low (0)    | 1908.5 (19185) | 19.29 | 19.54 | 19.42 |
|           |                | 1880 (18900)   | 19.24 | 19.48 | 19.68 |
|           |                | 1851.5 (18615) | 19.38 | 19.58 | 19.32 |
|           | 8RB-High (7)   | 1908.5 (19185) | 19.31 | 19.65 | 19.60 |
|           |                | 1880 (18900)   | 19.26 | 19.47 | 19.44 |
|           |                | 1851.5 (18615) | 19.59 | 19.55 | 19.47 |

|                 |                 |                |              |       |       |       |
|-----------------|-----------------|----------------|--------------|-------|-------|-------|
|                 | 8RB-Middle (4)  | 1908.5 (19185) | 19.56        | 19.47 | 19.70 |       |
|                 |                 | 1880 (18900)   | 19.51        | 19.52 | 19.39 |       |
|                 |                 | 1851.5 (18615) | 19.67        | 19.39 | 19.53 |       |
|                 | 8RB-Low (0)     | 1908.5 (19185) | 19.56        | 19.36 | 19.56 |       |
|                 |                 | 1880 (18900)   | 19.16        | 19.38 | 19.26 |       |
|                 |                 | 1851.5 (18615) | 19.40        | 19.44 | 19.29 |       |
|                 | 15RB (0)        | 1908.5 (19185) | 19.54        | 19.38 | 19.53 |       |
|                 |                 | 1880 (18900)   | 19.32        | 19.40 | 19.27 |       |
|                 |                 | 1851.5 (18615) | 19.43        | 19.26 | 19.59 |       |
| 5MHz            | 1RB-High (24)   | 1907.5 (19175) | 19.23        | 19.50 | 19.49 |       |
|                 |                 | 1880 (18900)   | 19.27        | 19.39 | 19.53 |       |
|                 |                 | 1852.5 (18625) | 19.36        | 19.64 | 19.53 |       |
|                 | 1RB-Middle (12) | 1907.5 (19175) | 19.61        | 19.49 | 19.55 |       |
|                 |                 | 1880 (18900)   | 19.59        | 19.53 | 19.65 |       |
|                 |                 | 1852.5 (18625) | 19.47        | 19.53 | 19.64 |       |
|                 | 1RB-Low (0)     | 1907.5 (19175) | 19.39        | 19.45 | 19.42 |       |
|                 |                 | 1880 (18900)   | 19.15        | 19.59 | 19.45 |       |
|                 |                 | 1852.5 (18625) | 19.19        | 19.57 | 19.35 |       |
|                 | 12RB-High (13)  | 1907.5 (19175) | 19.35        | 19.48 | 19.42 |       |
|                 |                 | 1880 (18900)   | 19.45        | 19.31 | 19.40 |       |
|                 |                 | 1852.5 (18625) | 19.53        | 19.65 | 19.56 |       |
|                 | 12RB-Middle (6) | 1907.5 (19175) | 19.62        | 19.64 | 19.49 |       |
|                 |                 | 1880 (18900)   | 19.67        | 19.52 | 19.35 |       |
|                 |                 | 1852.5 (18625) | 19.50        | 19.65 | 19.36 |       |
|                 | 12RB-Low (0)    | 1907.5 (19175) | 19.31        | 19.43 | 19.28 |       |
|                 |                 | 1880 (18900)   | 19.38        | 19.26 | 19.15 |       |
|                 |                 | 1852.5 (18625) | 19.32        | 19.54 | 19.52 |       |
|                 | 25RB (0)        | 1907.5 (19175) | 19.34        | 19.29 | 19.29 |       |
|                 |                 | 1880 (18900)   | 19.37        | 19.19 | 19.43 |       |
|                 |                 | 1852.5 (18625) | 19.39        | 19.44 | 19.33 |       |
|                 | 10MHz           | 1RB-High (49)  | 1905 (19150) | 19.42 | 19.56 | 19.42 |
|                 |                 |                | 1880 (18900) | 19.33 | 19.41 | 19.44 |
|                 |                 |                | 1855 (18650) | 19.21 | 19.51 | 19.53 |
| 1RB-Middle (24) |                 | 1905 (19150)   | 19.27        | 19.73 | 19.71 |       |
|                 |                 | 1880 (18900)   | 19.62        | 19.56 | 19.57 |       |
|                 |                 | 1855 (18650)   | 19.25        | 19.59 | 19.54 |       |
| 1RB-Low (0)     |                 | 1905 (19150)   | 19.19        | 19.56 | 19.49 |       |
|                 |                 | 1880 (18900)   | 19.34        | 19.44 | 19.48 |       |
|                 |                 | 1855 (18650)   | 19.47        | 19.47 | 19.46 |       |
| 25RB-High (25)  |                 | 1905 (19150)   | 19.61        | 19.35 | 19.41 |       |
|                 |                 | 1880 (18900)   | 19.38        | 19.24 | 19.40 |       |

|                  |                  |                |                |       |       |       |
|------------------|------------------|----------------|----------------|-------|-------|-------|
|                  | 25RB-Middle (12) | 1855 (18650)   | 19.55          | 19.65 | 19.56 |       |
|                  |                  | 1905 (19150)   | 19.37          | 19.37 | 19.43 |       |
|                  |                  | 1880 (18900)   | 19.58          | 19.40 | 19.41 |       |
|                  | 25RB-Low (0)     | 1855 (18650)   | 19.47          | 19.45 | 19.32 |       |
|                  |                  | 1905 (19150)   | 19.40          | 19.36 | 19.29 |       |
|                  |                  | 1880 (18900)   | 19.30          | 19.09 | 19.44 |       |
|                  | 50RB (0)         | 1855 (18650)   | 19.30          | 19.43 | 19.46 |       |
|                  |                  | 1905 (19150)   | 19.41          | 19.56 | 19.53 |       |
|                  |                  | 1880 (18900)   | 19.42          | 19.15 | 19.52 |       |
|                  | 15MHz            | 1RB-High (74)  | 1855 (18650)   | 19.39 | 19.50 | 19.38 |
|                  |                  |                | 1902.5 (19125) | 19.35 | 19.72 | 19.49 |
|                  |                  |                | 1880 (18900)   | 19.07 | 19.38 | 19.43 |
| 1RB-Middle (37)  |                  | 1857.5 (18675) | 19.12          | 19.52 | 19.32 |       |
|                  |                  | 1902.5 (19125) | 19.57          | 19.58 | 19.70 |       |
|                  |                  | 1880 (18900)   | 19.51          | 19.59 | 19.45 |       |
| 1RB-Low (0)      |                  | 1857.5 (18675) | 19.56          | 19.37 | 19.52 |       |
|                  |                  | 1902.5 (19125) | 19.22          | 19.38 | 19.54 |       |
|                  |                  | 1880 (18900)   | 19.23          | 19.42 | 19.37 |       |
| 36RB-High (38)   |                  | 1857.5 (18675) | 19.19          | 19.43 | 19.60 |       |
|                  |                  | 1902.5 (19125) | 19.50          | 19.61 | 19.37 |       |
|                  |                  | 1880 (18900)   | 19.29          | 19.26 | 19.59 |       |
| 36RB-Middle (19) |                  | 1857.5 (18675) | 19.40          | 19.39 | 19.53 |       |
|                  |                  | 1902.5 (19125) | 19.51          | 19.52 | 19.57 |       |
|                  |                  | 1880 (18900)   | 19.68          | 19.49 | 19.39 |       |
| 36RB-Low (0)     |                  | 1857.5 (18675) | 19.37          | 19.66 | 19.47 |       |
|                  |                  | 1902.5 (19125) | 19.48          | 19.60 | 19.41 |       |
|                  |                  | 1880 (18900)   | 19.21          | 19.16 | 19.35 |       |
| 75RB (0)         |                  | 1857.5 (18675) | 19.61          | 19.28 | 19.27 |       |
|                  |                  | 1902.5 (19125) | 19.25          | 19.29 | 19.62 |       |
|                  |                  | 1880 (18900)   | 19.37          | 19.26 | 19.17 |       |
| 20MHz            |                  | 1RB-High (99)  | 1857.5 (18675) | 19.35 | 19.41 | 19.36 |
|                  |                  |                | 1900 (19100)   | 19.28 | 19.54 | 19.36 |
|                  |                  |                | 1880 (18900)   | 19.21 | 19.45 | 19.36 |
|                  | 1RB-Middle (50)  | 1860 (18700)   | 19.24          | 19.61 | 19.48 |       |
|                  |                  | 1900 (19100)   | 19.43          | 19.62 | 19.68 |       |
|                  |                  | 1880 (18900)   | 19.44          | 19.66 | 19.61 |       |
|                  | 1RB-Low (0)      | 1860 (18700)   | 19.41          | 19.54 | 19.53 |       |
|                  |                  | 1900 (19100)   | 19.21          | 19.53 | 19.43 |       |
|                  |                  | 1880 (18900)   | 19.20          | 19.56 | 19.52 |       |
|                  | 50RB-High (50)   | 1860 (18700)   | 19.30          | 19.49 | 19.47 |       |
|                  |                  |                | 1900 (19100)   | 19.46 | 19.48 | 19.49 |

|  |                  |              |       |       |       |
|--|------------------|--------------|-------|-------|-------|
|  | 50RB-Middle (25) | 1880 (18900) | 19.41 | 19.38 | 19.41 |
|  |                  | 1860 (18700) | 19.48 | 19.48 | 19.50 |
|  |                  | 1900 (19100) | 19.48 | 19.48 | 19.52 |
|  |                  | 1880 (18900) | 19.51 | 19.46 | 19.48 |
|  |                  | 1860 (18700) | 19.50 | 19.49 | 19.50 |
|  |                  | 1900 (19100) | 19.42 | 19.42 | 19.43 |
|  | 50RB-Low (0)     | 1880 (18900) | 19.30 | 19.26 | 19.30 |
|  |                  | 1860 (18700) | 19.43 | 19.42 | 19.43 |
|  |                  | 1900 (19100) | 19.43 | 19.43 | 19.45 |
|  | 100RB (0)        | 1880 (18900) | 19.36 | 19.32 | 19.34 |
|  |                  | 1860 (18700) | 19.43 | 19.44 | 19.45 |
|  |                  | 1900 (19100) | 19.43 | 19.43 | 19.45 |

**LTE Band7 ANT4 (DSI1)**

| BANDWIDTH       | Number of RBs   | Frequency      | QPSK         | 16QAM | 64QAM |       |
|-----------------|-----------------|----------------|--------------|-------|-------|-------|
| 5MHz            | 1RB-High (24)   | 2567.5 (21425) | 14.39        | 14.66 | 14.66 |       |
|                 |                 | 2535 (21100)   | 14.25        | 14.66 | 14.60 |       |
|                 |                 | 2502.5 (20775) | 14.49        | 14.75 | 14.65 |       |
|                 | 1RB-Middle (12) | 2567.5 (21425) | 14.44        | 14.73 | 14.63 |       |
|                 |                 | 2535 (21100)   | 14.69        | 14.97 | 14.84 |       |
|                 |                 | 2502.5 (20775) | 14.64        | 14.79 | 14.70 |       |
|                 | 1RB-Low (0)     | 2567.5 (21425) | 14.31        | 14.81 | 14.61 |       |
|                 |                 | 2535 (21100)   | 14.37        | 14.70 | 14.50 |       |
|                 |                 | 2502.5 (20775) | 14.49        | 14.76 | 14.71 |       |
|                 | 12RB-High (13)  | 2567.5 (21425) | 14.43        | 14.61 | 14.47 |       |
|                 |                 | 2535 (21100)   | 14.43        | 14.49 | 14.42 |       |
|                 |                 | 2502.5 (20775) | 14.69        | 14.67 | 14.69 |       |
|                 | 12RB-Middle (6) | 2567.5 (21425) | 14.67        | 14.60 | 14.68 |       |
|                 |                 | 2535 (21100)   | 14.62        | 14.54 | 14.48 |       |
|                 |                 | 2502.5 (20775) | 14.57        | 14.62 | 14.62 |       |
|                 | 12RB-Low (0)    | 2567.5 (21425) | 14.54        | 14.48 | 14.39 |       |
|                 |                 | 2535 (21100)   | 14.44        | 14.59 | 14.53 |       |
|                 |                 | 2502.5 (20775) | 14.50        | 14.53 | 14.54 |       |
|                 | 25RB (0)        | 2567.5 (21425) | 14.48        | 14.52 | 14.39 |       |
|                 |                 | 2535 (21100)   | 14.54        | 14.42 | 14.56 |       |
|                 |                 | 2502.5 (20775) | 14.59        | 14.62 | 14.63 |       |
|                 | 10MHz           | 1RB-High (49)  | 2565 (21400) | 14.33 | 14.71 | 14.48 |
|                 |                 |                | 2535 (21100) | 14.24 | 14.75 | 14.55 |
|                 |                 |                | 2505 (20800) | 14.36 | 14.63 | 14.72 |
| 1RB-Middle (24) |                 | 2565 (21400)   | 14.41        | 14.85 | 14.61 |       |
|                 |                 | 2535 (21100)   | 14.55        | 14.87 | 14.73 |       |

|          |                  |                |       |       |       |
|----------|------------------|----------------|-------|-------|-------|
|          |                  | 2505 (20800)   | 14.52 | 14.79 | 14.72 |
|          | 1RB-Low (0)      | 2565 (21400)   | 14.29 | 14.76 | 14.61 |
|          |                  | 2535 (21100)   | 14.37 | 14.69 | 14.52 |
|          |                  | 2505 (20800)   | 14.46 | 14.82 | 14.75 |
|          | 25RB-High (25)   | 2565 (21400)   | 14.57 | 14.61 | 14.44 |
|          |                  | 2535 (21100)   | 14.42 | 14.50 | 14.40 |
|          |                  | 2505 (20800)   | 14.63 | 14.63 | 14.70 |
|          | 25RB-Middle (12) | 2565 (21400)   | 14.51 | 14.60 | 14.54 |
|          |                  | 2535 (21100)   | 14.72 | 14.52 | 14.47 |
|          |                  | 2505 (20800)   | 14.67 | 14.66 | 14.61 |
|          | 25RB-Low (0)     | 2565 (21400)   | 14.40 | 14.50 | 14.54 |
|          |                  | 2535 (21100)   | 14.60 | 14.60 | 14.64 |
|          |                  | 2505 (20800)   | 14.51 | 14.55 | 14.65 |
|          | 50RB (0)         | 2565 (21400)   | 14.44 | 14.47 | 14.57 |
|          |                  | 2535 (21100)   | 14.63 | 14.58 | 14.59 |
|          |                  | 2505 (20800)   | 14.50 | 14.56 | 14.62 |
| 15MHz    | 1RB-High (74)    | 2562.5 (21375) | 14.43 | 14.65 | 14.57 |
|          |                  | 2535 (21100)   | 14.26 | 14.72 | 14.53 |
|          |                  | 2507.5 (20825) | 14.49 | 14.77 | 14.60 |
|          | 1RB-Middle (37)  | 2562.5 (21375) | 14.45 | 14.89 | 14.77 |
|          |                  | 2535 (21100)   | 14.58 | 14.90 | 14.84 |
|          |                  | 2507.5 (20825) | 14.53 | 14.83 | 14.83 |
|          | 1RB-Low (0)      | 2562.5 (21375) | 14.39 | 14.64 | 14.64 |
|          |                  | 2535 (21100)   | 14.40 | 14.78 | 14.61 |
|          |                  | 2507.5 (20825) | 14.48 | 14.78 | 14.68 |
|          | 36RB-High (38)   | 2562.5 (21375) | 14.47 | 14.56 | 14.54 |
|          |                  | 2535 (21100)   | 14.41 | 14.40 | 14.55 |
|          |                  | 2507.5 (20825) | 14.58 | 14.65 | 14.69 |
|          | 36RB-Middle (19) | 2562.5 (21375) | 14.56 | 14.64 | 14.50 |
|          |                  | 2535 (21100)   | 14.65 | 14.68 | 14.64 |
|          |                  | 2507.5 (20825) | 14.68 | 14.69 | 14.72 |
|          | 36RB-Low (0)     | 2562.5 (21375) | 14.51 | 14.38 | 14.48 |
|          |                  | 2535 (21100)   | 14.56 | 14.49 | 14.57 |
|          |                  | 2507.5 (20825) | 14.49 | 14.53 | 14.62 |
| 75RB (0) | 2562.5 (21375)   | 14.37          | 14.52 | 14.43 |       |
|          | 2535 (21100)     | 14.63          | 14.38 | 14.49 |       |
|          | 2507.5 (20825)   | 14.49          | 14.62 | 14.67 |       |
| 20MHz    | 1RB-High (99)    | 2560 (21350)   | 14.36 | 14.74 | 14.57 |
|          |                  | 2535 (21100)   | 14.33 | 14.71 | 14.52 |
|          |                  | 2510 (20850)   | 14.42 | 14.72 | 14.63 |
|          | 1RB-Middle (50)  | 2560 (21350)   | 14.50 | 14.81 | 14.70 |

|  |                  |              |       |       |       |
|--|------------------|--------------|-------|-------|-------|
|  | 1RB-Low (0)      | 2535 (21100) | 14.64 | 14.93 | 14.76 |
|  |                  | 2510 (20850) | 14.61 | 14.85 | 14.80 |
|  |                  | 2560 (21350) | 14.36 | 14.71 | 14.58 |
|  | 50RB-High (50)   | 2535 (21100) | 14.37 | 14.72 | 14.54 |
|  |                  | 2510 (20850) | 14.46 | 14.81 | 14.68 |
|  |                  | 2560 (21350) | 14.52 | 14.53 | 14.52 |
|  | 50RB-Middle (25) | 2535 (21100) | 14.47 | 14.46 | 14.49 |
|  |                  | 2510 (20850) | 14.61 | 14.61 | 14.62 |
|  |                  | 2560 (21350) | 14.60 | 14.55 | 14.60 |
|  | 50RB-Low (0)     | 2535 (21100) | 14.67 | 14.58 | 14.57 |
|  |                  | 2510 (20850) | 14.65 | 14.68 | 14.69 |
|  |                  | 2560 (21350) | 14.47 | 14.46 | 14.47 |
|  | 100RB (0)        | 2535 (21100) | 14.54 | 14.52 | 14.54 |
|  |                  | 2510 (20850) | 14.56 | 14.58 | 14.59 |
|  |                  | 2560 (21350) | 14.47 | 14.43 | 14.48 |
|  |                  | 2535 (21100) | 14.61 | 14.48 | 14.51 |
|  |                  | 2510 (20850) | 14.59 | 14.58 | 14.61 |
|  |                  |              |       |       |       |

**LTE Band7 ANT4 (DSI3/5)**

| BANDWIDTH | Number of RBs   | Frequency      | QPSK  | 16QAM | 64QAM |
|-----------|-----------------|----------------|-------|-------|-------|
| 5MHz      | 1RB-High (24)   | 2567.5 (21425) | 19.36 | 19.77 | 19.57 |
|           |                 | 2535 (21100)   | 19.16 | 19.43 | 19.67 |
|           |                 | 2502.5 (20775) | 19.46 | 19.83 | 19.47 |
|           | 1RB-Middle (12) | 2567.5 (21425) | 19.80 | 19.91 | 19.54 |
|           |                 | 2535 (21100)   | 19.56 | 19.87 | 19.66 |
|           |                 | 2502.5 (20775) | 19.61 | 19.72 | 19.72 |
|           | 1RB-Low (0)     | 2567.5 (21425) | 19.31 | 19.44 | 19.33 |
|           |                 | 2535 (21100)   | 19.41 | 19.79 | 19.78 |
|           |                 | 2502.5 (20775) | 19.59 | 19.96 | 19.81 |
|           | 12RB-High (13)  | 2567.5 (21425) | 19.34 | 19.39 | 19.61 |
|           |                 | 2535 (21100)   | 19.38 | 19.53 | 19.33 |
|           |                 | 2502.5 (20775) | 19.61 | 19.70 | 19.53 |
|           | 12RB-Middle (6) | 2567.5 (21425) | 19.72 | 19.65 | 19.46 |
|           |                 | 2535 (21100)   | 19.53 | 19.67 | 19.59 |
|           |                 | 2502.5 (20775) | 19.62 | 19.78 | 19.65 |
|           | 12RB-Low (0)    | 2567.5 (21425) | 19.61 | 19.55 | 19.49 |
|           |                 | 2535 (21100)   | 19.44 | 19.61 | 19.64 |
|           |                 | 2502.5 (20775) | 19.64 | 19.72 | 19.74 |
|           | 25RB (0)        | 2567.5 (21425) | 19.45 | 19.31 | 19.56 |
|           |                 | 2535 (21100)   | 19.61 | 19.43 | 19.57 |



|       |                  |                |       |       |       |
|-------|------------------|----------------|-------|-------|-------|
|       |                  | 2502.5 (20775) | 19.69 | 19.63 | 19.66 |
| 10MHz | 1RB-High (49)    | 2565 (21400)   | 19.42 | 19.78 | 19.43 |
|       |                  | 2535 (21100)   | 19.28 | 19.46 | 19.33 |
|       |                  | 2505 (20800)   | 19.37 | 19.67 | 19.60 |
|       | 1RB-Middle (24)  | 2565 (21400)   | 19.73 | 19.91 | 19.53 |
|       |                  | 2535 (21100)   | 19.69 | 19.69 | 19.92 |
|       |                  | 2505 (20800)   | 19.53 | 19.96 | 19.84 |
|       | 1RB-Low (0)      | 2565 (21400)   | 19.14 | 19.76 | 19.61 |
|       |                  | 2535 (21100)   | 19.43 | 19.64 | 19.65 |
|       |                  | 2505 (20800)   | 19.31 | 19.95 | 19.48 |
|       | 25RB-High (25)   | 2565 (21400)   | 19.38 | 19.32 | 19.60 |
|       |                  | 2535 (21100)   | 19.57 | 19.56 | 19.38 |
|       |                  | 2505 (20800)   | 19.63 | 19.69 | 19.58 |
|       | 25RB-Middle (12) | 2565 (21400)   | 19.68 | 19.56 | 19.60 |
|       |                  | 2535 (21100)   | 19.83 | 19.65 | 19.55 |
|       |                  | 2505 (20800)   | 19.69 | 19.65 | 19.53 |
|       | 25RB-Low (0)     | 2565 (21400)   | 19.54 | 19.35 | 19.29 |
|       |                  | 2535 (21100)   | 19.53 | 19.40 | 19.48 |
|       |                  | 2505 (20800)   | 19.59 | 19.61 | 19.70 |
|       | 50RB (0)         | 2565 (21400)   | 19.60 | 19.33 | 19.29 |
|       |                  | 2535 (21100)   | 19.53 | 19.45 | 19.39 |
|       |                  | 2505 (20800)   | 19.56 | 19.68 | 19.50 |
| 15MHz | 1RB-High (74)    | 2562.5 (21375) | 19.48 | 19.87 | 19.38 |
|       |                  | 2535 (21100)   | 19.48 | 19.71 | 19.65 |
|       |                  | 2507.5 (20825) | 19.46 | 19.87 | 19.49 |
|       | 1RB-Middle (37)  | 2562.5 (21375) | 19.56 | 19.80 | 19.81 |
|       |                  | 2535 (21100)   | 19.51 | 19.62 | 19.73 |
|       |                  | 2507.5 (20825) | 19.64 | 20.02 | 19.92 |
|       | 1RB-Low (0)      | 2562.5 (21375) | 19.29 | 19.59 | 19.50 |
|       |                  | 2535 (21100)   | 19.54 | 19.74 | 19.71 |
|       |                  | 2507.5 (20825) | 19.36 | 19.98 | 19.77 |
|       | 36RB-High (38)   | 2562.5 (21375) | 19.59 | 19.35 | 19.45 |
|       |                  | 2535 (21100)   | 19.61 | 19.33 | 19.48 |
|       |                  | 2507.5 (20825) | 19.69 | 19.45 | 19.60 |
|       | 36RB-Middle (19) | 2562.5 (21375) | 19.74 | 19.63 | 19.43 |
|       |                  | 2535 (21100)   | 19.60 | 19.66 | 19.71 |
|       |                  | 2507.5 (20825) | 19.65 | 19.67 | 19.50 |
|       | 36RB-Low (0)     | 2562.5 (21375) | 19.55 | 19.39 | 19.57 |
|       |                  | 2535 (21100)   | 19.66 | 19.47 | 19.48 |
|       |                  | 2507.5 (20825) | 19.55 | 19.60 | 19.46 |
|       | 75RB (0)         | 2562.5 (21375) | 19.31 | 19.24 | 19.33 |

|       |                  |                |       |       |       |
|-------|------------------|----------------|-------|-------|-------|
|       |                  | 2535 (21100)   | 19.60 | 19.40 | 19.32 |
|       |                  | 2507.5 (20825) | 19.64 | 19.60 | 19.50 |
| 20MHz | 1RB-High (99)    | 2560 (21350)   | 19.36 | 19.69 | 19.49 |
|       |                  | 2535 (21100)   | 19.31 | 19.54 | 19.50 |
|       |                  | 2510 (20850)   | 19.39 | 19.73 | 19.49 |
|       | 1RB-Middle (50)  | 2560 (21350)   | 19.62 | 19.74 | 19.66 |
|       |                  | 2535 (21100)   | 19.64 | 19.76 | 19.75 |
|       |                  | 2510 (20850)   | 19.60 | 19.90 | 19.78 |
|       | 1RB-Low (0)      | 2560 (21350)   | 19.32 | 19.60 | 19.45 |
|       |                  | 2535 (21100)   | 19.41 | 19.70 | 19.62 |
|       |                  | 2510 (20850)   | 19.48 | 19.80 | 19.63 |
|       | 50RB-High (50)   | 2560 (21350)   | 19.49 | 19.43 | 19.45 |
|       |                  | 2535 (21100)   | 19.44 | 19.41 | 19.42 |
|       |                  | 2510 (20850)   | 19.61 | 19.56 | 19.59 |
|       | 50RB-Middle (25) | 2560 (21350)   | 19.60 | 19.56 | 19.53 |
|       |                  | 2535 (21100)   | 19.68 | 19.54 | 19.58 |
|       |                  | 2510 (20850)   | 19.65 | 19.64 | 19.65 |
|       | 50RB-Low (0)     | 2560 (21350)   | 19.46 | 19.42 | 19.42 |
|       |                  | 2535 (21100)   | 19.53 | 19.48 | 19.52 |
|       |                  | 2510 (20850)   | 19.58 | 19.54 | 19.56 |
|       | 100RB (0)        | 2560 (21350)   | 19.45 | 19.39 | 19.42 |
|       |                  | 2535 (21100)   | 19.59 | 19.47 | 19.46 |
|       |                  | 2510 (20850)   | 19.58 | 19.54 | 19.56 |

**LTE Band7 ANT4 (DSI4)**

| BANDWIDTH | Number of RBs   | Frequency      | QPSK  | 16QAM | 64QAM |
|-----------|-----------------|----------------|-------|-------|-------|
| 5MHz      | 1RB-High (24)   | 2567.5 (21425) | 22.79 | 23.02 | 22.65 |
|           |                 | 2535 (21100)   | 22.90 | 23.08 | 22.52 |
|           |                 | 2502.5 (20775) | 22.68 | 23.07 | 22.52 |
|           | 1RB-Middle (12) | 2567.5 (21425) | 22.72 | 23.08 | 22.57 |
|           |                 | 2535 (21100)   | 22.68 | 23.06 | 22.46 |
|           |                 | 2502.5 (20775) | 23.09 | 23.32 | 22.44 |
|           | 1RB-Low (0)     | 2567.5 (21425) | 22.70 | 23.07 | 22.42 |
|           |                 | 2535 (21100)   | 22.52 | 22.83 | 22.42 |
|           |                 | 2502.5 (20775) | 22.78 | 23.30 | 22.56 |
|           | 12RB-High (13)  | 2567.5 (21425) | 22.54 | 22.05 | 21.16 |
|           |                 | 2535 (21100)   | 22.75 | 22.32 | 21.23 |
|           |                 | 2502.5 (20775) | 22.85 | 22.32 | 21.32 |
|           | 12RB-Middle (6) | 2567.5 (21425) | 22.96 | 22.28 | 21.38 |
|           |                 | 2535 (21100)   | 22.92 | 22.32 | 21.29 |

|                  |                  |                |                |       |       |       |
|------------------|------------------|----------------|----------------|-------|-------|-------|
|                  |                  | 2502.5 (20775) | 22.86          | 22.29 | 21.25 |       |
|                  | 12RB-Low (0)     | 2567.5 (21425) | 22.86          | 22.34 | 21.47 |       |
|                  |                  | 2535 (21100)   | 22.64          | 22.26 | 21.33 |       |
|                  |                  | 2502.5 (20775) | 22.77          | 22.21 | 21.36 |       |
|                  | 25RB (0)         | 2567.5 (21425) | 22.83          | 22.26 | 21.38 |       |
|                  |                  | 2535 (21100)   | 22.71          | 22.46 | 21.31 |       |
|                  |                  | 2502.5 (20775) | 22.68          | 22.39 | 21.33 |       |
| 10MHz            | 1RB-High (49)    | 2565 (21400)   | 22.72          | 23.21 | 22.63 |       |
|                  |                  | 2535 (21100)   | 22.75          | 23.00 | 22.39 |       |
|                  |                  | 2505 (20800)   | 22.78          | 23.16 | 22.40 |       |
|                  | 1RB-Middle (24)  | 2565 (21400)   | 22.81          | 23.10 | 22.42 |       |
|                  |                  | 2535 (21100)   | 22.72          | 23.00 | 22.55 |       |
|                  |                  | 2505 (20800)   | 23.03          | 23.35 | 22.39 |       |
|                  | 1RB-Low (0)      | 2565 (21400)   | 22.83          | 23.02 | 22.60 |       |
|                  |                  | 2535 (21100)   | 22.75          | 22.87 | 22.40 |       |
|                  |                  | 2505 (20800)   | 22.70          | 23.16 | 22.45 |       |
|                  | 25RB-High (25)   | 2565 (21400)   | 22.75          | 22.14 | 21.21 |       |
|                  |                  | 2535 (21100)   | 22.63          | 22.29 | 21.30 |       |
|                  |                  | 2505 (20800)   | 22.81          | 22.20 | 21.26 |       |
|                  | 25RB-Middle (12) | 2565 (21400)   | 23.09          | 22.42 | 21.25 |       |
|                  |                  | 2535 (21100)   | 22.87          | 22.31 | 21.34 |       |
|                  |                  | 2505 (20800)   | 22.96          | 22.32 | 21.32 |       |
|                  | 25RB-Low (0)     | 2565 (21400)   | 22.85          | 22.30 | 21.42 |       |
|                  |                  | 2535 (21100)   | 22.80          | 22.34 | 21.26 |       |
|                  |                  | 2505 (20800)   | 22.86          | 22.22 | 21.28 |       |
|                  | 50RB (0)         | 2565 (21400)   | 22.79          | 22.28 | 21.44 |       |
|                  |                  | 2535 (21100)   | 22.70          | 22.34 | 21.39 |       |
|                  |                  | 2505 (20800)   | 22.79          | 22.38 | 21.20 |       |
|                  | 15MHz            | 1RB-High (74)  | 2562.5 (21375) | 22.76 | 23.09 | 22.63 |
|                  |                  |                | 2535 (21100)   | 22.89 | 23.08 | 22.47 |
|                  |                  |                | 2507.5 (20825) | 22.74 | 23.13 | 22.46 |
| 1RB-Middle (37)  |                  | 2562.5 (21375) | 22.78          | 23.10 | 22.48 |       |
|                  |                  | 2535 (21100)   | 22.71          | 23.13 | 22.43 |       |
|                  |                  | 2507.5 (20825) | 22.99          | 23.35 | 22.53 |       |
| 1RB-Low (0)      |                  | 2562.5 (21375) | 22.74          | 23.07 | 22.50 |       |
|                  |                  | 2535 (21100)   | 22.59          | 22.89 | 22.36 |       |
|                  |                  | 2507.5 (20825) | 22.84          | 23.25 | 22.49 |       |
| 36RB-High (38)   |                  | 2562.5 (21375) | 22.64          | 22.10 | 21.17 |       |
|                  |                  | 2535 (21100)   | 22.73          | 22.33 | 21.31 |       |
|                  |                  | 2507.5 (20825) | 22.82          | 22.24 | 21.28 |       |
| 36RB-Middle (19) | 2562.5 (21375)   | 22.89          | 22.26          | 21.41 |       |       |

|       |                  |                |       |       |       |
|-------|------------------|----------------|-------|-------|-------|
|       | 36RB-Low (0)     | 2535 (21100)   | 22.94 | 22.24 | 21.35 |
|       |                  | 2507.5 (20825) | 22.92 | 22.21 | 21.20 |
|       |                  | 2562.5 (21375) | 22.82 | 22.27 | 21.43 |
|       |                  | 2535 (21100)   | 22.62 | 22.30 | 21.26 |
|       |                  | 2507.5 (20825) | 22.77 | 22.16 | 21.37 |
|       |                  | 2562.5 (21375) | 22.85 | 22.26 | 21.39 |
|       | 75RB (0)         | 2535 (21100)   | 22.81 | 22.47 | 21.23 |
|       |                  | 2507.5 (20825) | 22.71 | 22.42 | 21.38 |
|       |                  | 2560 (21350)   | 22.80 | 23.17 | 22.55 |
| 20MHz | 1RB-High (99)    | 2535 (21100)   | 22.80 | 23.08 | 22.48 |
|       |                  | 2510 (20850)   | 22.82 | 23.07 | 22.44 |
|       |                  | 2560 (21350)   | 22.84 | 23.13 | 22.44 |
|       | 1RB-Middle (50)  | 2535 (21100)   | 22.98 | 23.06 | 22.52 |
|       |                  | 2510 (20850)   | 22.93 | 23.32 | 22.44 |
|       |                  | 2560 (21350)   | 22.73 | 23.06 | 22.54 |
|       | 1RB-Low (0)      | 2535 (21100)   | 22.67 | 22.94 | 22.42 |
|       |                  | 2510 (20850)   | 22.76 | 23.24 | 22.39 |
|       |                  | 2560 (21350)   | 22.69 | 22.13 | 21.23 |
|       | 50RB-High (50)   | 2535 (21100)   | 22.72 | 22.31 | 21.36 |
|       |                  | 2510 (20850)   | 22.78 | 22.27 | 21.27 |
|       |                  | 2560 (21350)   | 22.99 | 22.36 | 21.35 |
|       | 50RB-Middle (25) | 2535 (21100)   | 23.02 | 22.28 | 21.33 |
|       |                  | 2510 (20850)   | 22.94 | 22.28 | 21.24 |
|       |                  | 2560 (21350)   | 22.87 | 22.25 | 21.33 |
|       | 50RB-Low (0)     | 2535 (21100)   | 22.72 | 22.30 | 21.26 |
|       |                  | 2510 (20850)   | 22.80 | 22.16 | 21.27 |
|       |                  | 2560 (21350)   | 22.83 | 22.24 | 21.34 |
|       | 100RB (0)        | 2535 (21100)   | 22.75 | 22.37 | 21.33 |
|       |                  | 2510 (20850)   | 22.75 | 22.33 | 21.28 |

**LTE Band12 ANT4 (DSI1/3/4/5)**

| BANDWIDTH | Number of RBs  | Frequency | QPSK  | 16QAM | 64QAM |
|-----------|----------------|-----------|-------|-------|-------|
| 1.4MHz    | 1RB-High (5)   | 715.3     | 24.14 | 23.34 | 22.34 |
|           |                | 707.5     | 24.21 | 23.37 | 22.55 |
|           |                | 699.7     | 24.11 | 23.57 | 22.17 |
|           | 1RB-Middle (3) | 715.3     | 24.35 | 23.51 | 22.57 |
|           |                | 707.5     | 24.21 | 23.35 | 22.37 |
|           |                | 699.7     | 24.29 | 23.50 | 22.41 |
|           | 1RB-Low (0)    | 715.3     | 24.22 | 23.39 | 22.36 |
|           |                | 707.5     | 24.37 | 23.72 | 22.30 |

|      |                 |       |       |       |       |
|------|-----------------|-------|-------|-------|-------|
|      |                 | 699.7 | 24.44 | 23.43 | 22.52 |
|      | 3RB-High (3)    | 715.3 | 24.34 | 23.26 | 22.34 |
|      |                 | 707.5 | 24.30 | 23.51 | 22.52 |
|      |                 | 699.7 | 24.11 | 23.40 | 22.23 |
|      | 3RB-Middle (1)  | 715.3 | 24.42 | 23.63 | 22.58 |
|      |                 | 707.5 | 24.20 | 23.68 | 22.47 |
|      |                 | 699.7 | 24.21 | 23.44 | 22.53 |
|      | 3RB-Low (0)     | 715.3 | 24.34 | 23.55 | 22.50 |
|      |                 | 707.5 | 24.30 | 23.61 | 22.54 |
|      |                 | 699.7 | 24.22 | 23.56 | 22.52 |
|      | 6RB (0)         | 715.3 | 23.19 | 22.34 | 21.26 |
|      |                 | 707.5 | 23.22 | 22.35 | 21.22 |
|      |                 | 699.7 | 23.45 | 22.12 | 21.26 |
| 3MHz | 1RB-High (14)   | 714.5 | 24.22 | 23.14 | 22.02 |
|      |                 | 707.5 | 24.07 | 23.37 | 22.38 |
|      |                 | 700.5 | 24.13 | 23.44 | 22.34 |
|      | 1RB-Middle (7)  | 714.5 | 24.12 | 23.61 | 22.54 |
|      |                 | 707.5 | 24.42 | 23.35 | 22.47 |
|      |                 | 700.5 | 24.32 | 23.49 | 22.53 |
|      | 1RB-Low (0)     | 714.5 | 24.17 | 23.36 | 22.43 |
|      |                 | 707.5 | 24.29 | 23.55 | 22.51 |
|      |                 | 700.5 | 24.42 | 23.58 | 22.46 |
|      | 8RB-High (7)    | 714.5 | 23.05 | 22.06 | 21.22 |
|      |                 | 707.5 | 23.25 | 22.25 | 21.10 |
|      |                 | 700.5 | 23.14 | 22.41 | 21.28 |
|      | 8RB-Middle (4)  | 714.5 | 23.20 | 22.18 | 21.24 |
|      |                 | 707.5 | 23.50 | 22.37 | 21.42 |
|      |                 | 700.5 | 23.32 | 22.34 | 21.25 |
|      | 8RB-Low (0)     | 714.5 | 23.29 | 22.42 | 21.09 |
|      |                 | 707.5 | 23.40 | 22.09 | 21.46 |
|      |                 | 700.5 | 23.30 | 22.42 | 21.27 |
|      | 15RB (0)        | 714.5 | 23.22 | 22.27 | 21.09 |
|      |                 | 707.5 | 23.28 | 22.23 | 21.15 |
|      |                 | 700.5 | 23.11 | 22.19 | 21.40 |
| 5MHz | 1RB-High (24)   | 713.5 | 24.37 | 23.33 | 22.15 |
|      |                 | 707.5 | 24.39 | 23.34 | 22.52 |
|      |                 | 701.5 | 24.10 | 23.39 | 22.45 |
|      | 1RB-Middle (12) | 713.5 | 24.42 | 23.43 | 22.36 |
|      |                 | 707.5 | 24.14 | 23.52 | 22.43 |
|      |                 | 701.5 | 24.33 | 23.59 | 22.32 |
|      | 1RB-Low (0)     | 713.5 | 24.36 | 23.35 | 22.55 |

|                  |                 |                 |       |       |       |       |
|------------------|-----------------|-----------------|-------|-------|-------|-------|
|                  |                 | 707.5           | 24.30 | 23.68 | 22.33 |       |
|                  |                 | 701.5           | 24.12 | 23.45 | 22.64 |       |
|                  | 12RB-High (13)  | 713.5           | 22.99 | 22.15 | 21.11 |       |
|                  |                 | 707.5           | 23.36 | 22.30 | 21.43 |       |
|                  |                 | 701.5           | 23.23 | 22.43 | 21.17 |       |
|                  | 12RB-Middle (6) | 713.5           | 23.23 | 22.17 | 21.49 |       |
|                  |                 | 707.5           | 23.55 | 22.33 | 21.48 |       |
|                  |                 | 701.5           | 23.44 | 22.47 | 21.20 |       |
|                  | 12RB-Low (0)    | 713.5           | 23.07 | 22.24 | 21.23 |       |
|                  |                 | 707.5           | 23.13 | 22.27 | 21.30 |       |
|                  |                 | 701.5           | 23.22 | 22.43 | 21.27 |       |
|                  | 25RB (0)        | 713.5           | 23.11 | 22.19 | 21.30 |       |
|                  |                 | 707.5           | 23.21 | 22.29 | 21.24 |       |
|                  |                 | 701.5           | 23.26 | 22.41 | 21.30 |       |
|                  | 10MHz           | 1RB-High (49)   | 711   | 24.22 | 23.21 | 22.16 |
|                  |                 |                 | 707.5 | 24.21 | 23.44 | 22.43 |
|                  |                 |                 | 704   | 24.17 | 23.48 | 22.35 |
|                  |                 | 1RB-Middle (24) | 711   | 24.25 | 23.50 | 22.49 |
| 707.5            |                 |                 | 24.31 | 23.50 | 22.45 |       |
| 704              |                 |                 | 24.27 | 23.53 | 22.47 |       |
| 1RB-Low (0)      |                 | 711             | 24.27 | 23.45 | 22.50 |       |
|                  |                 | 707.5           | 24.26 | 23.58 | 22.45 |       |
|                  |                 | 704             | 24.29 | 23.51 | 22.54 |       |
| 25RB-High (25)   |                 | 711             | 23.14 | 22.15 | 21.19 |       |
|                  |                 | 707.5           | 23.20 | 22.23 | 21.26 |       |
|                  |                 | 704             | 23.24 | 22.26 | 21.29 |       |
| 25RB-Middle (12) |                 | 711             | 23.31 | 22.31 | 21.35 |       |
|                  |                 | 707.5           | 23.37 | 22.34 | 21.36 |       |
|                  |                 | 704             | 23.32 | 22.37 | 21.38 |       |
| 25RB-Low (0)     |                 | 711             | 23.24 | 22.27 | 21.27 |       |
|                  |                 | 707.5           | 23.24 | 22.25 | 21.28 |       |
|                  |                 | 704             | 23.25 | 22.26 | 21.28 |       |
| 50RB (0)         |                 | 711             | 23.24 | 22.19 | 21.23 |       |
|                  |                 | 707.5           | 23.26 | 22.26 | 21.29 |       |
|                  |                 | 704             | 23.29 | 22.26 | 21.29 |       |

**LTE Band13 ANT4 (DSI1/3/4/5)**

| BANDWIDTH | Number of RBs    | Frequency     | QPSK  | 16QAM | 64QAM |
|-----------|------------------|---------------|-------|-------|-------|
| 5MHz      | 1RB-High (24)    | 784.5 (23255) | 24.38 | 23.56 | 22.47 |
|           |                  | 782 (23230)   | 24.48 | 23.73 | 22.75 |
|           |                  | 779.5 (23205) | 24.44 | 23.74 | 22.55 |
|           | 1RB-Middle (12)  | 784.5 (23255) | 24.25 | 23.46 | 22.33 |
|           |                  | 782 (23230)   | 24.35 | 23.51 | 22.49 |
|           |                  | 779.5 (23205) | 24.40 | 23.58 | 22.54 |
|           | 1RB-Low (0)      | 784.5 (23255) | 24.27 | 23.52 | 22.63 |
|           |                  | 782 (23230)   | 24.26 | 23.83 | 22.63 |
|           |                  | 779.5 (23205) | 24.24 | 23.58 | 22.72 |
|           | 12RB-High (13)   | 784.5 (23255) | 23.32 | 22.43 | 21.55 |
|           |                  | 782 (23230)   | 23.26 | 22.32 | 21.31 |
|           |                  | 779.5 (23205) | 23.23 | 22.42 | 21.29 |
|           | 12RB-Middle (6)  | 784.5 (23255) | 23.29 | 22.37 | 21.42 |
|           |                  | 782 (23230)   | 23.31 | 22.59 | 21.40 |
|           |                  | 779.5 (23205) | 23.35 | 22.29 | 21.22 |
|           | 12RB-Low (0)     | 784.5 (23255) | 23.40 | 22.41 | 21.29 |
|           |                  | 782 (23230)   | 23.48 | 22.25 | 21.54 |
|           |                  | 779.5 (23205) | 23.13 | 22.45 | 21.19 |
|           | 25RB (0)         | 784.5 (23255) | 23.51 | 22.21 | 21.40 |
|           |                  | 782 (23230)   | 23.48 | 22.57 | 21.66 |
|           |                  | 779.5 (23205) | 23.26 | 22.49 | 21.42 |
| 10MHz     | 1RB-High (49)    | 782 (23230)   | 24.32 | 23.45 | 22.49 |
|           | 1RB-Middle (24)  | 782 (23230)   | 24.40 | 23.65 | 22.62 |
|           | 1RB-Low (0)      | 782 (23230)   | 24.41 | 23.65 | 22.61 |
|           | 25RB-High (25)   | 782 (23230)   | 23.33 | 22.36 | 21.39 |
|           | 25RB-Middle (12) | 782 (23230)   | 23.44 | 22.42 | 21.49 |
|           | 25RB-Low (0)     | 782 (23230)   | 23.27 | 22.31 | 21.31 |
|           | 50RB (0)         | 782 (23230)   | 23.36 | 22.34 | 21.36 |

**LTE Band26 ANT4 (DSI1/3/4/5)**

| BANDWIDTH | Number of RBs  | Frequency     | QPSK  | 16QAM | 64QAM |
|-----------|----------------|---------------|-------|-------|-------|
| 1.4MHz    | 1RB-High (5)   | 848.3 (27033) | 24.17 | 23.65 | 22.36 |
|           |                | 831.5 (26865) | 24.02 | 23.48 | 22.36 |
|           |                | 814.7 (26697) | 24.07 | 23.36 | 22.42 |
|           | 1RB-Middle (3) | 848.3 (27033) | 24.17 | 23.66 | 22.35 |
|           |                | 831.5 (26865) | 24.31 | 23.60 | 22.46 |
|           |                | 814.7 (26697) | 24.28 | 23.75 | 22.48 |

|               |                 |               |       |       |       |
|---------------|-----------------|---------------|-------|-------|-------|
|               | 1RB-Low (0)     | 848.3 (27033) | 24.29 | 23.48 | 22.35 |
|               |                 | 831.5 (26865) | 24.17 | 23.44 | 22.27 |
|               |                 | 814.7 (26697) | 24.18 | 23.51 | 22.50 |
|               | 3RB-High (3)    | 848.3 (27033) | 23.98 | 23.59 | 22.44 |
|               |                 | 831.5 (26865) | 23.98 | 23.42 | 22.49 |
|               |                 | 814.7 (26697) | 24.23 | 23.39 | 22.34 |
|               | 3RB-Middle (1)  | 848.3 (27033) | 24.21 | 23.54 | 22.36 |
|               |                 | 831.5 (26865) | 24.13 | 23.56 | 22.44 |
|               |                 | 814.7 (26697) | 24.18 | 23.55 | 22.46 |
|               | 3RB-Low (0)     | 848.3 (27033) | 24.21 | 23.44 | 22.26 |
|               |                 | 831.5 (26865) | 24.17 | 23.66 | 22.47 |
|               |                 | 814.7 (26697) | 24.08 | 23.38 | 22.44 |
|               | 6RB (0)         | 848.3 (27033) | 23.14 | 22.40 | 21.30 |
|               |                 | 831.5 (26865) | 23.17 | 22.23 | 21.12 |
|               |                 | 814.7 (26697) | 23.34 | 22.40 | 21.47 |
| 3MHz          | 1RB-High (14)   | 847.5 (27025) | 24.02 | 23.58 | 22.37 |
|               |                 | 831.5 (26865) | 24.18 | 23.24 | 22.37 |
|               |                 | 815.5 (26705) | 24.34 | 23.39 | 22.26 |
|               | 1RB-Middle (7)  | 847.5 (27025) | 24.09 | 23.62 | 22.40 |
|               |                 | 831.5 (26865) | 24.34 | 23.31 | 22.50 |
|               |                 | 815.5 (26705) | 24.39 | 23.46 | 22.56 |
|               | 1RB-Low (0)     | 847.5 (27025) | 24.05 | 23.32 | 22.24 |
|               |                 | 831.5 (26865) | 24.04 | 23.50 | 22.33 |
|               |                 | 815.5 (26705) | 24.18 | 23.63 | 22.33 |
|               | 8RB-High (7)    | 847.5 (27025) | 23.12 | 22.22 | 21.22 |
|               |                 | 831.5 (26865) | 23.42 | 22.10 | 21.11 |
|               |                 | 815.5 (26705) | 23.40 | 22.22 | 21.42 |
|               | 8RB-Middle (4)  | 847.5 (27025) | 23.23 | 22.38 | 21.12 |
|               |                 | 831.5 (26865) | 23.24 | 22.37 | 21.46 |
|               |                 | 815.5 (26705) | 23.41 | 22.32 | 21.49 |
|               | 8RB-Low (0)     | 847.5 (27025) | 23.24 | 22.16 | 21.48 |
|               |                 | 831.5 (26865) | 23.42 | 22.39 | 21.37 |
|               |                 | 815.5 (26705) | 23.29 | 22.40 | 21.11 |
|               | 15RB (0)        | 847.5 (27025) | 23.37 | 22.15 | 21.38 |
|               |                 | 831.5 (26865) | 23.13 | 22.32 | 21.34 |
|               |                 | 815.5 (26705) | 23.28 | 22.44 | 21.33 |
| 5MHz          | 1RB-High (24)   | 846.5 (27015) | 24.23 | 23.54 | 22.24 |
|               |                 | 831.5 (26865) | 24.21 | 23.35 | 22.45 |
|               |                 | 816.5 (26715) | 24.11 | 23.50 | 22.32 |
|               | 1RB-Middle (12) | 846.5 (27015) | 24.36 | 23.43 | 22.58 |
| 831.5 (26865) |                 | 24.39         | 23.44 | 22.67 |       |



|       |                  |               |       |       |       |
|-------|------------------|---------------|-------|-------|-------|
|       |                  | 816.5 (26715) | 24.33 | 23.48 | 22.65 |
|       | 1RB-Low (0)      | 846.5 (27015) | 24.31 | 23.50 | 22.26 |
|       |                  | 831.5 (26865) | 24.11 | 23.55 | 22.39 |
|       |                  | 816.5 (26715) | 24.15 | 23.35 | 22.33 |
|       | 12RB-High (13)   | 846.5 (27015) | 23.29 | 22.12 | 21.25 |
|       |                  | 831.5 (26865) | 23.08 | 22.40 | 21.46 |
|       |                  | 816.5 (26715) | 23.39 | 22.31 | 21.27 |
|       | 12RB-Middle (6)  | 846.5 (27015) | 23.12 | 22.37 | 21.26 |
|       |                  | 831.5 (26865) | 23.30 | 22.43 | 21.43 |
|       |                  | 816.5 (26715) | 23.20 | 22.32 | 21.23 |
|       | 12RB-Low (0)     | 846.5 (27015) | 23.40 | 22.14 | 21.27 |
|       |                  | 831.5 (26865) | 23.21 | 22.32 | 21.24 |
|       |                  | 816.5 (26715) | 23.02 | 22.39 | 21.25 |
|       | 25RB (0)         | 846.5 (27015) | 23.29 | 22.18 | 21.14 |
|       |                  | 831.5 (26865) | 23.12 | 22.07 | 21.32 |
|       |                  | 816.5 (26715) | 23.22 | 22.28 | 21.11 |
| 10MHz | 1RB-High (49)    | 844 (26990)   | 24.17 | 23.34 | 22.35 |
|       |                  | 831.5 (26865) | 24.07 | 23.19 | 22.36 |
|       |                  | 819 (26740)   | 24.02 | 23.40 | 22.48 |
|       | 1RB-Middle (24)  | 844 (26990)   | 24.13 | 23.53 | 22.29 |
|       |                  | 831.5 (26865) | 24.36 | 23.38 | 22.43 |
|       |                  | 819 (26740)   | 24.04 | 23.63 | 22.39 |
|       | 1RB-Low (0)      | 844 (26990)   | 24.21 | 23.29 | 22.37 |
|       |                  | 831.5 (26865) | 24.15 | 23.58 | 22.38 |
|       |                  | 819 (26740)   | 24.20 | 23.48 | 22.58 |
|       | 25RB-High (25)   | 844 (26990)   | 23.12 | 22.33 | 21.22 |
|       |                  | 831.5 (26865) | 23.15 | 22.20 | 21.31 |
|       |                  | 819 (26740)   | 23.21 | 22.27 | 21.27 |
|       | 25RB-Middle (12) | 844 (26990)   | 23.28 | 22.26 | 21.25 |
|       |                  | 831.5 (26865) | 23.37 | 22.24 | 21.21 |
|       |                  | 819 (26740)   | 23.47 | 22.41 | 21.24 |
|       | 25RB-Low (0)     | 844 (26990)   | 23.16 | 22.16 | 21.15 |
|       |                  | 831.5 (26865) | 23.42 | 22.32 | 21.36 |
|       |                  | 819 (26740)   | 23.24 | 22.18 | 21.27 |
|       | 50RB (0)         | 844 (26990)   | 23.29 | 22.19 | 21.38 |
|       |                  | 831.5 (26865) | 23.45 | 22.25 | 21.13 |
|       |                  | 819 (26740)   | 23.38 | 22.30 | 21.12 |
| 15MHz | 1RB-High (74)    | 841.5 (26965) | 24.15 | 23.49 | 22.41 |
|       |                  | 831.5 (26865) | 24.13 | 23.32 | 22.31 |
|       |                  | 821.5 (26765) | 24.19 | 23.41 | 22.33 |
|       | 1RB-Middle (37)  | 841.5 (26965) | 24.23 | 23.51 | 22.44 |

|  |                  |               |       |       |       |
|--|------------------|---------------|-------|-------|-------|
|  | 1RB-Low (0)      | 831.5 (26865) | 24.29 | 23.45 | 22.53 |
|  |                  | 821.5 (26765) | 24.21 | 23.58 | 22.53 |
|  |                  | 841.5 (26965) | 24.15 | 23.34 | 22.38 |
|  | 36RB-High (38)   | 831.5 (26865) | 24.19 | 23.48 | 22.34 |
|  |                  | 821.5 (26765) | 24.24 | 23.46 | 22.41 |
|  |                  | 841.5 (26965) | 23.21 | 22.24 | 21.28 |
|  | 36RB-Middle (19) | 831.5 (26865) | 23.24 | 22.24 | 21.29 |
|  |                  | 821.5 (26765) | 23.26 | 22.25 | 21.34 |
|  |                  | 841.5 (26965) | 23.25 | 22.25 | 21.29 |
|  | 36RB-Low (0)     | 831.5 (26865) | 23.34 | 22.28 | 21.32 |
|  |                  | 821.5 (26765) | 23.31 | 22.28 | 21.35 |
|  |                  | 841.5 (26965) | 23.26 | 22.27 | 21.30 |
|  | 75RB (0)         | 831.5 (26865) | 23.24 | 22.25 | 21.29 |
|  |                  | 821.5 (26765) | 23.20 | 22.23 | 21.29 |
|  |                  | 841.5 (26965) | 23.25 | 22.22 | 21.28 |
|  |                  | 831.5 (26865) | 23.27 | 22.24 | 21.28 |
|  |                  | 821.5 (26765) | 23.26 | 22.27 | 21.29 |

**LTE Band41 ANT4 (DSI1)**

| BANDWIDTH | Number of RBs   | Frequency      | QPSK  | 16QAM | 64QAM |
|-----------|-----------------|----------------|-------|-------|-------|
| 5MHz      | 1RB-High (24)   | 2687.5 (41565) | 18.41 | 18.72 | 18.20 |
|           |                 | 2640.3(41093)  | 18.52 | 18.64 | 18.33 |
|           |                 | 2593 (40620)   | 18.14 | 18.39 | 17.80 |
|           |                 | 2545.8(40148)  | 18.08 | 18.34 | 17.66 |
|           |                 | 2498.5 (39675) | 18.28 | 18.11 | 17.59 |
|           | 1RB-Middle (12) | 2687.5 (41565) | 18.62 | 18.96 | 18.50 |
|           |                 | 2640.3(41093)  | 18.89 | 18.66 | 18.45 |
|           |                 | 2593 (40620)   | 18.65 | 18.54 | 18.12 |
|           |                 | 2545.8(40148)  | 18.17 | 18.25 | 17.98 |
|           |                 | 2498.5 (39675) | 18.49 | 18.29 | 17.85 |
|           | 1RB-Low (0)     | 2687.5 (41565) | 18.81 | 18.79 | 18.41 |
|           |                 | 2640.3(41093)  | 18.69 | 18.68 | 18.17 |
|           |                 | 2593 (40620)   | 18.40 | 18.44 | 17.94 |
|           |                 | 2545.8(40148)  | 18.29 | 18.06 | 17.74 |
|           |                 | 2498.5 (39675) | 18.08 | 17.91 | 17.56 |
|           | 12RB-High (13)  | 2687.5 (41565) | 18.40 | 18.56 | 18.44 |
|           |                 | 2640.3(41093)  | 18.68 | 18.48 | 18.53 |
|           |                 | 2593 (40620)   | 18.16 | 18.34 | 18.12 |
|           |                 | 2545.8(40148)  | 18.27 | 17.93 | 17.95 |
|           |                 | 2498.5 (39675) | 18.17 | 18.20 | 18.30 |

|       |                  |                |       |       |       |
|-------|------------------|----------------|-------|-------|-------|
|       | 12RB-Middle (6)  | 2687.5 (41565) | 18.55 | 18.55 | 18.56 |
|       |                  | 2640.3(41093)  | 18.66 | 18.65 | 18.84 |
|       |                  | 2593 (40620)   | 18.92 | 18.25 | 18.20 |
|       |                  | 2545.8(40148)  | 18.28 | 18.33 | 18.18 |
|       |                  | 2498.5 (39675) | 18.36 | 18.27 | 18.28 |
|       | 12RB-Low (0)     | 2687.5 (41565) | 18.76 | 18.77 | 18.63 |
|       |                  | 2640.3(41093)  | 18.67 | 18.56 | 18.45 |
|       |                  | 2593 (40620)   | 18.19 | 18.32 | 18.21 |
|       |                  | 2545.8(40148)  | 18.28 | 18.00 | 18.24 |
|       |                  | 2498.5 (39675) | 17.79 | 17.94 | 17.77 |
|       | 25RB (0)         | 2687.5 (41565) | 18.79 | 18.56 | 18.85 |
|       |                  | 2640.3(41093)  | 18.74 | 18.72 | 18.71 |
|       |                  | 2593 (40620)   | 18.69 | 18.50 | 18.32 |
|       |                  | 2545.8(40148)  | 18.20 | 17.94 | 17.97 |
|       |                  | 2498.5 (39675) | 18.25 | 18.05 | 18.05 |
| 10MHz | 1RB-High (49)    | 2685 (41540)   | 18.46 | 18.54 | 18.02 |
|       |                  | 2639(41080)    | 18.51 | 18.76 | 18.38 |
|       |                  | 2593 (40620)   | 18.09 | 18.44 | 18.01 |
|       |                  | 2547(40160)    | 18.27 | 18.17 | 17.67 |
|       |                  | 2501 (39700)   | 18.03 | 18.28 | 17.58 |
|       | 1RB-Middle (24)  | 2685 (41540)   | 18.51 | 18.91 | 18.38 |
|       |                  | 2639(41080)    | 18.58 | 18.63 | 18.53 |
|       |                  | 2593 (40620)   | 18.64 | 18.37 | 17.93 |
|       |                  | 2547(40160)    | 18.25 | 18.17 | 18.09 |
|       |                  | 2501 (39700)   | 18.54 | 18.34 | 17.72 |
|       | 1RB-Low (0)      | 2685 (41540)   | 18.73 | 18.63 | 18.32 |
|       |                  | 2639(41080)    | 18.48 | 18.48 | 18.32 |
|       |                  | 2593 (40620)   | 18.51 | 18.43 | 17.96 |
|       |                  | 2547(40160)    | 18.13 | 18.08 | 17.88 |
|       |                  | 2501 (39700)   | 18.22 | 18.00 | 17.73 |
|       | 25RB-High (25)   | 2685 (41540)   | 18.51 | 18.42 | 18.45 |
|       |                  | 2639(41080)    | 18.67 | 18.65 | 18.59 |
|       |                  | 2593 (40620)   | 18.49 | 18.15 | 18.45 |
|       |                  | 2547(40160)    | 18.23 | 18.26 | 18.04 |
|       |                  | 2501 (39700)   | 18.22 | 18.01 | 18.19 |
|       | 25RB-Middle (12) | 2685 (41540)   | 18.79 | 18.65 | 18.65 |
|       |                  | 2639(41080)    | 18.58 | 18.61 | 18.68 |
|       |                  | 2593 (40620)   | 18.69 | 18.32 | 18.35 |
|       |                  | 2547(40160)    | 18.18 | 18.32 | 17.99 |
|       |                  | 2501 (39700)   | 18.32 | 18.28 | 18.12 |
|       | 25RB-Low (0)     | 2685 (41540)   | 18.46 | 18.74 | 18.78 |

|                  |                |                |                |       |       |
|------------------|----------------|----------------|----------------|-------|-------|
|                  |                | 2639(41080)    | 18.46          | 18.55 | 18.41 |
|                  |                | 2593 (40620)   | 18.29          | 18.44 | 18.35 |
|                  |                | 2547(40160)    | 17.93          | 18.20 | 18.06 |
|                  |                | 2501 (39700)   | 17.78          | 18.04 | 18.03 |
|                  | 50RB (0)       | 2685 (41540)   | 18.50          | 18.81 | 18.83 |
|                  |                | 2639(41080)    | 18.46          | 18.59 | 18.66 |
|                  |                | 2593 (40620)   | 18.77          | 18.48 | 18.46 |
|                  |                | 2547(40160)    | 18.18          | 18.24 | 18.19 |
|                  |                | 2501 (39700)   | 17.95          | 18.10 | 18.12 |
|                  | 15MHz          | 1RB-High (74)  | 2682.5 (41515) | 18.46 | 18.57 |
| 2637.8(41068)    |                |                | 18.63          | 18.66 | 18.10 |
| 2593 (40620)     |                |                | 18.29          | 18.27 | 18.10 |
| 2548.3(40173)    |                |                | 18.18          | 18.25 | 17.80 |
| 2503.5 (39725)   |                |                | 18.00          | 18.29 | 17.89 |
| 1RB-Middle (37)  |                | 2682.5 (41515) | 18.56          | 18.71 | 18.33 |
|                  |                | 2637.8(41068)  | 18.85          | 18.96 | 18.58 |
|                  |                | 2593 (40620)   | 18.70          | 18.61 | 18.27 |
|                  |                | 2548.3(40173)  | 18.20          | 18.35 | 17.95 |
|                  |                | 2503.5 (39725) | 18.58          | 18.34 | 17.81 |
| 1RB-Low (0)      |                | 2682.5 (41515) | 18.56          | 18.69 | 18.36 |
|                  |                | 2637.8(41068)  | 18.45          | 18.64 | 18.07 |
|                  |                | 2593 (40620)   | 18.42          | 18.22 | 17.78 |
|                  |                | 2548.3(40173)  | 18.08          | 18.06 | 17.83 |
|                  |                | 2503.5 (39725) | 18.22          | 18.25 | 17.54 |
| 36RB-High (38)   |                | 2682.5 (41515) | 18.36          | 18.72 | 18.50 |
|                  |                | 2637.8(41068)  | 18.54          | 18.83 | 18.77 |
|                  |                | 2593 (40620)   | 18.21          | 18.46 | 18.31 |
|                  |                | 2548.3(40173)  | 18.27          | 18.14 | 18.02 |
|                  |                | 2503.5 (39725) | 18.11          | 18.30 | 18.15 |
| 36RB-Middle (19) |                | 2682.5 (41515) | 18.82          | 18.52 | 18.74 |
|                  |                | 2637.8(41068)  | 18.77          | 18.83 | 18.55 |
|                  |                | 2593 (40620)   | 18.76          | 18.22 | 18.56 |
|                  |                | 2548.3(40173)  | 18.29          | 18.34 | 18.30 |
|                  |                | 2503.5 (39725) | 18.39          | 18.02 | 17.95 |
| 36RB-Low (0)     |                | 2682.5 (41515) | 18.45          | 18.68 | 18.60 |
|                  |                | 2637.8(41068)  | 18.64          | 18.67 | 18.75 |
|                  |                | 2593 (40620)   | 18.30          | 18.15 | 18.35 |
|                  |                | 2548.3(40173)  | 17.92          | 17.87 | 18.15 |
|                  |                | 2503.5 (39725) | 18.08          | 17.89 | 17.84 |
| 75RB (0)         | 2682.5 (41515) | 18.68          | 18.50          | 18.70 |       |
|                  | 2637.8(41068)  | 18.78          | 18.77          | 18.49 |       |

|           |                  |                |       |       |       |
|-----------|------------------|----------------|-------|-------|-------|
|           |                  | 2593 (40620)   | 18.61 | 18.37 | 18.29 |
|           |                  | 2548.3(40173)  | 18.07 | 18.03 | 18.09 |
|           |                  | 2503.5 (39725) | 18.06 | 18.11 | 18.19 |
| 20MHz     | 1RB-High (99)    | 2680 (41490)   | 18.57 | 18.60 | 18.20 |
|           |                  | 2636.5(41055)  | 18.56 | 18.61 | 18.22 |
|           |                  | 2593 (40620)   | 18.26 | 18.33 | 17.92 |
|           |                  | 2549.5(40185)  | 18.17 | 18.20 | 17.79 |
|           |                  | 2506 (39750)   | 18.11 | 18.12 | 17.74 |
|           | 1RB-Middle (50)  | 2680 (41490)   | 18.61 | 18.81 | 18.43 |
|           |                  | 2636.5(41055)  | 18.74 | 18.79 | 18.44 |
|           |                  | 2593 (40620)   | 18.81 | 18.46 | 18.10 |
|           |                  | 2549.5(40185)  | 18.32 | 18.32 | 17.91 |
|           |                  | 2506 (39750)   | 18.47 | 18.28 | 17.89 |
|           | 1RB-Low (0)      | 2680 (41490)   | 18.64 | 18.66 | 18.29 |
|           |                  | 2636.5(41055)  | 18.59 | 18.64 | 18.23 |
|           |                  | 2593 (40620)   | 18.33 | 18.34 | 17.95 |
|           |                  | 2549.5(40185)  | 18.11 | 18.10 | 17.76 |
|           |                  | 2506 (39750)   | 18.07 | 18.08 | 17.70 |
|           | 50RB-High (50)   | 2680 (41490)   | 18.53 | 18.56 | 18.54 |
|           |                  | 2636.5(41055)  | 18.65 | 18.65 | 18.65 |
|           |                  | 2593 (40620)   | 18.32 | 18.30 | 18.30 |
|           |                  | 2549.5(40185)  | 18.10 | 18.11 | 18.10 |
|           |                  | 2506 (39750)   | 18.18 | 18.16 | 18.16 |
|           | 50RB-Middle (25) | 2680 (41490)   | 18.67 | 18.68 | 18.70 |
|           |                  | 2636.5(41055)  | 18.66 | 18.69 | 18.70 |
|           |                  | 2593 (40620)   | 18.78 | 18.39 | 18.38 |
|           |                  | 2549.5(40185)  | 18.18 | 18.17 | 18.17 |
|           |                  | 2506 (39750)   | 18.45 | 18.13 | 18.13 |
|           | 50RB-Low (0)     | 2680 (41490)   | 18.63 | 18.64 | 18.64 |
|           |                  | 2636.5(41055)  | 18.59 | 18.60 | 18.58 |
|           |                  | 2593 (40620)   | 18.24 | 18.28 | 18.33 |
|           |                  | 2549.5(40185)  | 18.10 | 18.05 | 18.10 |
|           |                  | 2506 (39750)   | 17.96 | 17.97 | 17.94 |
| 100RB (0) | 2680 (41490)     | 18.64          | 18.68 | 18.67 |       |
|           | 2636.5(41055)    | 18.62          | 18.69 | 18.67 |       |
|           | 2593 (40620)     | 18.68          | 18.38 | 18.39 |       |
|           | 2549.5(40185)    | 18.16          | 18.11 | 18.12 |       |
|           | 2506 (39750)     | 18.11          | 18.07 | 18.06 |       |

## LTE Band41 ANT4 (DSI3)

| BANDWIDTH | Number of RBs   | Frequency      | QPSK  | 16QAM | 64QAM |
|-----------|-----------------|----------------|-------|-------|-------|
| 5MHz      | 1RB-High (24)   | 2687.5 (41565) | 21.18 | 21.55 | 21.24 |
|           |                 | 2640.3(41093)  | 21.31 | 21.62 | 21.23 |
|           |                 | 2593 (40620)   | 21.01 | 21.31 | 20.94 |
|           |                 | 2545.8(40148)  | 20.73 | 20.98 | 20.64 |
|           |                 | 2498.5 (39675) | 21.01 | 21.18 | 20.90 |
|           | 1RB-Middle (12) | 2687.5 (41565) | 21.58 | 21.85 | 21.32 |
|           |                 | 2640.3(41093)  | 21.43 | 21.52 | 21.35 |
|           |                 | 2593 (40620)   | 21.55 | 21.40 | 21.21 |
|           |                 | 2545.8(40148)  | 21.32 | 21.26 | 21.04 |
|           |                 | 2498.5 (39675) | 21.05 | 21.43 | 21.07 |
|           | 1RB-Low (0)     | 2687.5 (41565) | 21.38 | 21.48 | 21.16 |
|           |                 | 2640.3(41093)  | 21.13 | 21.62 | 21.15 |
|           |                 | 2593 (40620)   | 20.88 | 21.19 | 21.00 |
|           |                 | 2545.8(40148)  | 20.79 | 21.07 | 20.74 |
|           |                 | 2498.5 (39675) | 20.86 | 21.01 | 20.94 |
|           | 12RB-High (13)  | 2687.5 (41565) | 21.34 | 21.49 | 21.40 |
|           |                 | 2640.3(41093)  | 21.50 | 21.53 | 21.48 |
|           |                 | 2593 (40620)   | 21.25 | 21.22 | 21.08 |
|           |                 | 2545.8(40148)  | 20.81 | 20.84 | 21.08 |
|           |                 | 2498.5 (39675) | 21.10 | 21.23 | 21.09 |
|           | 12RB-Middle (6) | 2687.5 (41565) | 21.33 | 21.53 | 21.45 |
|           |                 | 2640.3(41093)  | 21.63 | 21.47 | 21.45 |
|           |                 | 2593 (40620)   | 21.63 | 21.13 | 20.99 |
|           |                 | 2545.8(40148)  | 21.14 | 21.03 | 20.91 |
|           |                 | 2498.5 (39675) | 20.91 | 21.25 | 21.22 |
|           | 12RB-Low (0)    | 2687.5 (41565) | 21.58 | 21.52 | 21.68 |
|           |                 | 2640.3(41093)  | 21.36 | 21.55 | 21.51 |
|           |                 | 2593 (40620)   | 21.01 | 21.20 | 21.19 |
|           |                 | 2545.8(40148)  | 20.79 | 20.83 | 20.89 |
|           |                 | 2498.5 (39675) | 20.83 | 20.99 | 20.76 |
| 25RB (0)  | 2687.5 (41565)  | 21.63          | 21.60 | 21.60 |       |
|           | 2640.3(41093)   | 21.47          | 21.53 | 21.61 |       |
|           | 2593 (40620)    | 21.20          | 21.23 | 20.92 |       |
|           | 2545.8(40148)   | 20.90          | 20.94 | 20.90 |       |
|           | 2498.5 (39675)  | 20.89          | 20.89 | 21.10 |       |
| 10MHz     | 1RB-High (49)   | 2685 (41540)   | 21.44 | 21.71 | 21.32 |
|           |                 | 2639(41080)    | 21.28 | 21.68 | 21.30 |
|           |                 | 2593 (40620)   | 20.90 | 21.29 | 21.10 |

|              |                  |                |       |       |       |
|--------------|------------------|----------------|-------|-------|-------|
|              |                  | 2547(40160)    | 20.78 | 20.88 | 20.61 |
|              |                  | 2501 (39700)   | 20.76 | 21.28 | 21.00 |
|              | 1RB-Middle (24)  | 2685 (41540)   | 21.39 | 21.77 | 21.35 |
|              |                  | 2639(41080)    | 21.54 | 21.81 | 21.32 |
|              |                  | 2593 (40620)   | 21.38 | 21.42 | 21.04 |
|              |                  | 2547(40160)    | 21.17 | 21.30 | 20.80 |
|              |                  | 2501 (39700)   | 21.20 | 21.14 | 20.90 |
|              | 1RB-Low (0)      | 2685 (41540)   | 21.17 | 21.56 | 21.46 |
|              |                  | 2639(41080)    | 21.13 | 21.40 | 21.14 |
|              |                  | 2593 (40620)   | 20.91 | 21.28 | 21.10 |
|              |                  | 2547(40160)    | 20.75 | 21.14 | 20.88 |
|              |                  | 2501 (39700)   | 20.95 | 20.95 | 20.91 |
|              | 25RB-High (25)   | 2685 (41540)   | 21.38 | 21.50 | 21.50 |
|              |                  | 2639(41080)    | 21.59 | 21.39 | 21.25 |
|              |                  | 2593 (40620)   | 21.06 | 20.97 | 21.04 |
|              |                  | 2547(40160)    | 20.95 | 20.86 | 20.88 |
|              |                  | 2501 (39700)   | 21.30 | 21.16 | 21.28 |
|              | 25RB-Middle (12) | 2685 (41540)   | 21.58 | 21.63 | 21.40 |
|              |                  | 2639(41080)    | 21.36 | 21.68 | 21.43 |
|              |                  | 2593 (40620)   | 21.44 | 21.16 | 21.02 |
|              |                  | 2547(40160)    | 21.07 | 20.78 | 21.05 |
|              |                  | 2501 (39700)   | 21.14 | 21.13 | 21.27 |
|              | 25RB-Low (0)     | 2685 (41540)   | 21.29 | 21.50 | 21.40 |
|              |                  | 2639(41080)    | 21.40 | 21.57 | 21.48 |
|              |                  | 2593 (40620)   | 21.09 | 21.20 | 21.21 |
| 2547(40160)  |                  | 20.80          | 20.84 | 20.80 |       |
| 2501 (39700) |                  | 20.96          | 21.02 | 21.02 |       |
| 50RB (0)     | 2685 (41540)     | 21.63          | 21.48 | 21.30 |       |
|              | 2639(41080)      | 21.25          | 21.55 | 21.56 |       |
|              | 2593 (40620)     | 20.91          | 21.15 | 21.14 |       |
|              | 2547(40160)      | 20.80          | 20.86 | 20.86 |       |
|              | 2501 (39700)     | 21.14          | 21.10 | 20.87 |       |
| 15MHz        | 1RB-High (74)    | 2682.5 (41515) | 21.39 | 21.62 | 21.13 |
|              |                  | 2637.8(41068)  | 21.12 | 21.65 | 21.22 |
|              |                  | 2593 (40620)   | 20.79 | 21.36 | 20.82 |
|              |                  | 2548.3(40173)  | 20.93 | 20.90 | 20.66 |
|              |                  | 2503.5 (39725) | 20.88 | 21.13 | 20.94 |
|              | 1RB-Middle (37)  | 2682.5 (41515) | 21.68 | 21.90 | 21.55 |
|              |                  | 2637.8(41068)  | 21.28 | 21.53 | 21.47 |
|              |                  | 2593 (40620)   | 21.56 | 21.37 | 20.96 |
|              |                  | 2548.3(40173)  | 21.33 | 21.14 | 20.90 |

|       |                  |                |       |       |       |
|-------|------------------|----------------|-------|-------|-------|
|       |                  | 2503.5 (39725) | 21.03 | 21.23 | 21.10 |
|       | 1RB-Low (0)      | 2682.5 (41515) | 21.41 | 21.44 | 21.39 |
|       |                  | 2637.8(41068)  | 21.27 | 21.51 | 21.16 |
|       |                  | 2593 (40620)   | 21.15 | 21.02 | 20.91 |
|       |                  | 2548.3(40173)  | 20.86 | 21.00 | 20.79 |
|       |                  | 2503.5 (39725) | 20.91 | 21.18 | 20.71 |
|       | 36RB-High (38)   | 2682.5 (41515) | 21.27 | 21.51 | 21.22 |
|       |                  | 2637.8(41068)  | 21.52 | 21.41 | 21.52 |
|       |                  | 2593 (40620)   | 20.96 | 20.91 | 21.20 |
|       |                  | 2548.3(40173)  | 20.88 | 21.05 | 20.93 |
|       |                  | 2503.5 (39725) | 21.17 | 21.30 | 21.22 |
|       | 36RB-Middle (19) | 2682.5 (41515) | 21.47 | 21.63 | 21.42 |
|       |                  | 2637.8(41068)  | 21.40 | 21.68 | 21.60 |
|       |                  | 2593 (40620)   | 21.57 | 21.06 | 21.27 |
|       |                  | 2548.3(40173)  | 21.40 | 20.77 | 20.96 |
|       |                  | 2503.5 (39725) | 21.25 | 21.19 | 20.95 |
|       | 36RB-Low (0)     | 2682.5 (41515) | 21.52 | 21.62 | 21.68 |
|       |                  | 2637.8(41068)  | 21.30 | 21.45 | 21.56 |
|       |                  | 2593 (40620)   | 20.86 | 21.02 | 21.22 |
|       |                  | 2548.3(40173)  | 20.86 | 20.73 | 20.93 |
|       |                  | 2503.5 (39725) | 21.01 | 20.78 | 20.71 |
|       | 75RB (0)         | 2682.5 (41515) | 21.35 | 21.65 | 21.50 |
|       |                  | 2637.8(41068)  | 21.42 | 21.48 | 21.34 |
|       |                  | 2593 (40620)   | 21.02 | 21.15 | 21.11 |
|       |                  | 2548.3(40173)  | 20.80 | 20.95 | 21.01 |
|       |                  | 2503.5 (39725) | 21.01 | 21.10 | 20.90 |
| 20MHz | 1RB-High (99)    | 2680 (41490)   | 21.31 | 21.56 | 21.30 |
|       |                  | 2636.5(41055)  | 21.29 | 21.53 | 21.27 |
|       |                  | 2593 (40620)   | 20.96 | 21.19 | 20.93 |
|       |                  | 2549.5(40185)  | 20.76 | 20.97 | 20.74 |
|       |                  | 2506 (39750)   | 20.89 | 21.11 | 20.87 |
|       | 1RB-Middle (50)  | 2680 (41490)   | 21.50 | 21.76 | 21.50 |
|       |                  | 2636.5(41055)  | 21.45 | 21.68 | 21.46 |
|       |                  | 2593 (40620)   | 21.51 | 21.37 | 21.10 |
|       |                  | 2549.5(40185)  | 21.23 | 21.20 | 20.93 |
|       |                  | 2506 (39750)   | 21.04 | 21.28 | 21.05 |
|       | 1RB-Low (0)      | 2680 (41490)   | 21.35 | 21.57 | 21.32 |
|       |                  | 2636.5(41055)  | 21.30 | 21.51 | 21.26 |
|       |                  | 2593 (40620)   | 20.97 | 21.20 | 20.94 |
|       |                  | 2549.5(40185)  | 20.78 | 21.02 | 20.78 |
|       |                  | 2506 (39750)   | 20.87 | 21.08 | 20.84 |



|  |                  |               |       |       |       |
|--|------------------|---------------|-------|-------|-------|
|  | 50RB-High (50)   | 2680 (41490)  | 21.38 | 21.42 | 21.40 |
|  |                  | 2636.5(41055) | 21.42 | 21.44 | 21.43 |
|  |                  | 2593 (40620)  | 21.07 | 21.09 | 21.08 |
|  |                  | 2549.5(40185) | 20.87 | 20.90 | 20.91 |
|  |                  | 2506 (39750)  | 21.12 | 21.13 | 21.12 |
|  | 50RB-Middle (25) | 2680 (41490)  | 21.50 | 21.57 | 21.55 |
|  |                  | 2636.5(41055) | 21.50 | 21.53 | 21.52 |
|  |                  | 2593 (40620)  | 21.51 | 21.15 | 21.15 |
|  |                  | 2549.5(40185) | 21.25 | 20.95 | 20.95 |
|  |                  | 2506 (39750)  | 21.07 | 21.11 | 21.11 |
|  | 50RB-Low (0)     | 2680 (41490)  | 21.47 | 21.50 | 21.50 |
|  |                  | 2636.5(41055) | 21.38 | 21.42 | 21.41 |
|  |                  | 2593 (40620)  | 21.00 | 21.04 | 21.05 |
|  |                  | 2549.5(40185) | 20.85 | 20.90 | 20.89 |
|  |                  | 2506 (39750)  | 20.90 | 20.90 | 20.89 |
|  | 100RB (0)        | 2680 (41490)  | 21.48 | 21.48 | 21.44 |
|  |                  | 2636.5(41055) | 21.43 | 21.43 | 21.43 |
|  |                  | 2593 (40620)  | 21.06 | 21.06 | 21.08 |
|  |                  | 2549.5(40185) | 20.87 | 20.86 | 20.89 |
|  |                  | 2506 (39750)  | 21.04 | 21.05 | 21.04 |

**LTE Band41 ANT4 (DSI4)**

| BANDWIDTH | Number of RBs   | Frequency      | QPSK  | 16QAM | 64QAM |
|-----------|-----------------|----------------|-------|-------|-------|
| 5MHz      | 1RB-High (24)   | 2687.5 (41565) | 24.18 | 23.06 | 22.06 |
|           |                 | 2640.3(41093)  | 24.41 | 23.27 | 21.86 |
|           |                 | 2593 (40620)   | 24.32 | 23.24 | 22.01 |
|           |                 | 2545.8(40148)  | 24.45 | 23.15 | 22.07 |
|           |                 | 2498.5 (39675) | 24.55 | 23.22 | 22.12 |
|           | 1RB-Middle (12) | 2687.5 (41565) | 24.59 | 23.45 | 22.05 |
|           |                 | 2640.3(41093)  | 24.53 | 23.58 | 22.23 |
|           |                 | 2593 (40620)   | 24.78 | 23.53 | 21.94 |
|           |                 | 2545.8(40148)  | 24.52 | 23.51 | 22.24 |
|           |                 | 2498.5 (39675) | 24.32 | 23.47 | 22.14 |
|           | 1RB-Low (0)     | 2687.5 (41565) | 24.50 | 23.45 | 21.88 |
|           |                 | 2640.3(41093)  | 24.21 | 23.50 | 21.83 |
|           |                 | 2593 (40620)   | 24.14 | 23.28 | 22.01 |
|           |                 | 2545.8(40148)  | 24.40 | 23.45 | 21.84 |
|           |                 | 2498.5 (39675) | 24.40 | 23.18 | 21.94 |
|           | 12RB-High (13)  | 2687.5 (41565) | 23.35 | 22.26 | 21.26 |
|           |                 | 2640.3(41093)  | 23.20 | 22.43 | 21.36 |

|                  |                 |                |              |       |       |       |
|------------------|-----------------|----------------|--------------|-------|-------|-------|
|                  |                 | 2593 (40620)   | 23.39        | 22.28 | 21.24 |       |
|                  |                 | 2545.8(40148)  | 23.27        | 22.25 | 21.56 |       |
|                  |                 | 2498.5 (39675) | 23.27        | 22.37 | 21.54 |       |
|                  | 12RB-Middle (6) | 2687.5 (41565) | 23.57        | 22.23 | 21.28 |       |
|                  |                 | 2640.3(41093)  | 23.31        | 22.46 | 21.53 |       |
|                  |                 | 2593 (40620)   | 23.57        | 22.31 | 21.47 |       |
|                  |                 | 2545.8(40148)  | 23.30        | 22.35 | 21.29 |       |
|                  |                 | 2498.5 (39675) | 23.38        | 22.25 | 21.38 |       |
|                  | 12RB-Low (0)    | 2687.5 (41565) | 23.39        | 22.35 | 21.33 |       |
|                  |                 | 2640.3(41093)  | 23.45        | 22.54 | 21.42 |       |
|                  |                 | 2593 (40620)   | 23.49        | 22.45 | 21.50 |       |
|                  |                 | 2545.8(40148)  | 23.34        | 22.32 | 21.38 |       |
|                  |                 | 2498.5 (39675) | 23.29        | 22.14 | 21.13 |       |
|                  | 25RB (0)        | 2687.5 (41565) | 23.36        | 22.49 | 21.51 |       |
|                  |                 | 2640.3(41093)  | 23.31        | 22.42 | 21.29 |       |
|                  |                 | 2593 (40620)   | 23.32        | 22.39 | 21.44 |       |
|                  |                 | 2545.8(40148)  | 23.56        | 22.30 | 21.28 |       |
|                  |                 | 2498.5 (39675) | 23.39        | 22.36 | 21.55 |       |
|                  | 10MHz           | 1RB-High (49)  | 2685 (41540) | 24.39 | 23.24 | 21.77 |
|                  |                 |                | 2639(41080)  | 24.26 | 23.26 | 22.03 |
| 2593 (40620)     |                 |                | 24.21        | 23.36 | 21.77 |       |
| 2547(40160)      |                 |                | 24.45        | 23.30 | 21.96 |       |
| 2501 (39700)     |                 |                | 24.53        | 23.42 | 22.13 |       |
| 1RB-Middle (24)  |                 | 2685 (41540)   | 24.51        | 23.27 | 21.96 |       |
|                  |                 | 2639(41080)    | 24.42        | 23.65 | 22.15 |       |
|                  |                 | 2593 (40620)   | 24.45        | 23.47 | 22.21 |       |
|                  |                 | 2547(40160)    | 24.40        | 23.45 | 22.01 |       |
|                  |                 | 2501 (39700)   | 24.40        | 23.39 | 22.22 |       |
| 1RB-Low (0)      |                 | 2685 (41540)   | 24.15        | 23.25 | 21.83 |       |
|                  |                 | 2639(41080)    | 24.39        | 23.44 | 22.11 |       |
|                  |                 | 2593 (40620)   | 24.28        | 23.20 | 22.11 |       |
|                  |                 | 2547(40160)    | 24.48        | 23.49 | 21.94 |       |
|                  |                 | 2501 (39700)   | 24.45        | 23.21 | 22.03 |       |
| 25RB-High (25)   |                 | 2685 (41540)   | 23.06        | 22.07 | 21.14 |       |
|                  |                 | 2639(41080)    | 23.40        | 22.36 | 21.29 |       |
|                  |                 | 2593 (40620)   | 23.42        | 22.15 | 21.27 |       |
|                  |                 | 2547(40160)    | 23.44        | 22.28 | 21.42 |       |
|                  |                 | 2501 (39700)   | 23.57        | 22.48 | 21.32 |       |
| 25RB-Middle (12) | 2685 (41540)    | 23.67          | 22.20        | 21.41 |       |       |
|                  | 2639(41080)     | 23.57          | 22.33        | 21.50 |       |       |
|                  | 2593 (40620)    | 23.40          | 22.39        | 21.54 |       |       |

|                  |               |                |                |       |       |       |
|------------------|---------------|----------------|----------------|-------|-------|-------|
|                  |               | 2547(40160)    | 23.44          | 22.52 | 21.29 |       |
|                  |               | 2501 (39700)   | 23.47          | 22.42 | 21.55 |       |
|                  | 25RB-Low (0)  | 2685 (41540)   | 23.42          | 22.24 | 21.27 |       |
|                  |               | 2639(41080)    | 23.44          | 22.50 | 21.56 |       |
|                  |               | 2593 (40620)   | 23.17          | 22.47 | 21.52 |       |
|                  |               | 2547(40160)    | 23.47          | 22.30 | 21.46 |       |
|                  |               | 2501 (39700)   | 23.18          | 22.30 | 21.18 |       |
|                  | 50RB (0)      | 2685 (41540)   | 23.23          | 22.41 | 21.37 |       |
|                  |               | 2639(41080)    | 23.45          | 22.53 | 21.22 |       |
|                  |               | 2593 (40620)   | 23.24          | 22.18 | 21.39 |       |
|                  |               | 2547(40160)    | 23.42          | 22.45 | 21.26 |       |
|                  |               | 2501 (39700)   | 23.35          | 22.52 | 21.49 |       |
|                  | 15MHz         | 1RB-High (74)  | 2682.5 (41515) | 24.06 | 23.19 | 22.06 |
|                  |               |                | 2637.8(41068)  | 24.37 | 23.47 | 21.85 |
| 2593 (40620)     |               |                | 24.40          | 23.25 | 21.97 |       |
| 2548.3(40173)    |               |                | 24.18          | 23.38 | 21.85 |       |
| 2503.5 (39725)   |               |                | 24.49          | 23.33 | 21.88 |       |
| 1RB-Middle (37)  |               | 2682.5 (41515) | 24.55          | 23.41 | 21.98 |       |
|                  |               | 2637.8(41068)  | 24.56          | 23.33 | 21.93 |       |
|                  |               | 2593 (40620)   | 24.80          | 23.46 | 22.14 |       |
|                  |               | 2548.3(40173)  | 24.30          | 23.71 | 22.27 |       |
|                  |               | 2503.5 (39725) | 24.58          | 23.45 | 22.11 |       |
| 1RB-Low (0)      |               | 2682.5 (41515) | 24.18          | 23.18 | 21.95 |       |
|                  |               | 2637.8(41068)  | 24.31          | 23.51 | 21.93 |       |
|                  |               | 2593 (40620)   | 24.44          | 23.39 | 21.89 |       |
|                  |               | 2548.3(40173)  | 24.22          | 23.23 | 21.96 |       |
|                  |               | 2503.5 (39725) | 24.18          | 23.39 | 22.07 |       |
| 36RB-High (38)   |               | 2682.5 (41515) | 23.16          | 22.13 | 21.16 |       |
|                  |               | 2637.8(41068)  | 23.15          | 22.24 | 21.40 |       |
|                  |               | 2593 (40620)   | 23.10          | 22.27 | 21.45 |       |
|                  |               | 2548.3(40173)  | 23.19          | 22.19 | 21.43 |       |
|                  |               | 2503.5 (39725) | 23.42          | 22.25 | 21.56 |       |
| 36RB-Middle (19) |               | 2682.5 (41515) | 23.70          | 22.51 | 21.25 |       |
|                  |               | 2637.8(41068)  | 23.54          | 22.54 | 21.43 |       |
|                  |               | 2593 (40620)   | 23.54          | 22.18 | 21.41 |       |
|                  |               | 2548.3(40173)  | 23.61          | 22.27 | 21.61 |       |
|                  |               | 2503.5 (39725) | 23.47          | 22.22 | 21.40 |       |
| 36RB-Low (0)     |               | 2682.5 (41515) | 23.25          | 22.23 | 21.14 |       |
|                  |               | 2637.8(41068)  | 23.19          | 22.50 | 21.45 |       |
|                  |               | 2593 (40620)   | 23.38          | 22.23 | 21.51 |       |
|                  | 2548.3(40173) | 23.33          | 22.14          | 21.16 |       |       |

|       |                  |                |       |       |       |
|-------|------------------|----------------|-------|-------|-------|
|       |                  | 2503.5 (39725) | 23.36 | 22.18 | 21.29 |
|       | 75RB (0)         | 2682.5 (41515) | 23.30 | 22.33 | 21.40 |
|       |                  | 2637.8(41068)  | 23.58 | 22.37 | 21.26 |
|       |                  | 2593 (40620)   | 23.38 | 22.21 | 21.46 |
|       |                  | 2548.3(40173)  | 23.36 | 22.50 | 21.34 |
|       |                  | 2503.5 (39725) | 23.51 | 22.19 | 21.27 |
|       |                  |                |       |       |       |
| 20MHz | 1RB-High (99)    | 2680 (41490)   | 24.21 | 23.24 | 21.89 |
|       |                  | 2636.5(41055)  | 24.24 | 23.29 | 21.93 |
|       |                  | 2593 (40620)   | 24.22 | 23.26 | 21.87 |
|       |                  | 2549.5(40185)  | 24.31 | 23.33 | 21.94 |
|       |                  | 2506 (39750)   | 24.38 | 23.36 | 22.04 |
|       | 1RB-Middle (50)  | 2680 (41490)   | 24.42 | 23.42 | 22.08 |
|       |                  | 2636.5(41055)  | 24.40 | 23.47 | 22.11 |
|       |                  | 2593 (40620)   | 24.62 | 23.46 | 22.06 |
|       |                  | 2549.5(40185)  | 24.45 | 23.53 | 22.18 |
|       |                  | 2506 (39750)   | 24.46 | 23.51 | 22.16 |
|       | 1RB-Low (0)      | 2680 (41490)   | 24.32 | 23.31 | 21.96 |
|       |                  | 2636.5(41055)  | 24.30 | 23.37 | 22.00 |
|       |                  | 2593 (40620)   | 24.29 | 23.33 | 21.99 |
|       |                  | 2549.5(40185)  | 24.35 | 23.36 | 22.02 |
|       |                  | 2506 (39750)   | 24.35 | 23.28 | 21.99 |
|       | 50RB-High (50)   | 2680 (41490)   | 23.23 | 22.25 | 21.32 |
|       |                  | 2636.5(41055)  | 23.31 | 22.29 | 21.37 |
|       |                  | 2593 (40620)   | 23.27 | 22.29 | 21.30 |
|       |                  | 2549.5(40185)  | 23.34 | 22.36 | 21.38 |
|       |                  | 2506 (39750)   | 23.41 | 22.39 | 21.42 |
|       | 50RB-Middle (25) | 2680 (41490)   | 23.54 | 22.34 | 21.40 |
|       |                  | 2636.5(41055)  | 23.39 | 22.43 | 21.47 |
|       |                  | 2593 (40620)   | 23.57 | 22.35 | 21.43 |
|       |                  | 2549.5(40185)  | 23.44 | 22.42 | 21.44 |
|       |                  | 2506 (39750)   | 23.51 | 22.36 | 21.41 |
|       | 50RB-Low (0)     | 2680 (41490)   | 23.25 | 22.27 | 21.32 |
|       |                  | 2636.5(41055)  | 23.34 | 22.39 | 21.46 |
|       |                  | 2593 (40620)   | 23.31 | 22.29 | 21.37 |
|       |                  | 2549.5(40185)  | 23.29 | 22.29 | 21.34 |
|       |                  | 2506 (39750)   | 23.26 | 22.21 | 21.27 |
|       | 100RB (0)        | 2680 (41490)   | 23.35 | 22.32 | 21.33 |
|       |                  | 2636.5(41055)  | 23.40 | 22.39 | 21.40 |
|       |                  | 2593 (40620)   | 23.35 | 22.33 | 21.34 |
|       |                  | 2549.5(40185)  | 23.41 | 22.39 | 21.37 |
|       |                  | 2506 (39750)   | 23.33 | 22.37 | 21.37 |

## LTE Band41 ANT4 (DSI5)

| BANDWIDTH | Number of RBs   | Frequency      | QPSK  | 16QAM | 64QAM |
|-----------|-----------------|----------------|-------|-------|-------|
| 5MHz      | 1RB-High (24)   | 2687.5 (41565) | 23.59 | 23.36 | 22.03 |
|           |                 | 2640.3(41093)  | 23.66 | 23.72 | 22.42 |
|           |                 | 2593 (40620)   | 23.13 | 23.38 | 21.85 |
|           |                 | 2545.8(40148)  | 23.13 | 23.01 | 21.82 |
|           |                 | 2498.5 (39675) | 23.03 | 23.01 | 21.86 |
|           | 1RB-Middle (12) | 2687.5 (41565) | 23.92 | 23.86 | 22.28 |
|           |                 | 2640.3(41093)  | 23.68 | 23.77 | 22.34 |
|           |                 | 2593 (40620)   | 23.92 | 23.36 | 22.02 |
|           |                 | 2545.8(40148)  | 23.21 | 23.44 | 21.79 |
|           |                 | 2498.5 (39675) | 23.62 | 23.36 | 22.06 |
|           | 1RB-Low (0)     | 2687.5 (41565) | 23.78 | 23.60 | 22.30 |
|           |                 | 2640.3(41093)  | 23.69 | 23.67 | 22.13 |
|           |                 | 2593 (40620)   | 23.31 | 23.26 | 21.96 |
|           |                 | 2545.8(40148)  | 23.10 | 23.26 | 21.70 |
|           |                 | 2498.5 (39675) | 22.95 | 23.01 | 21.83 |
|           | 12RB-High (13)  | 2687.5 (41565) | 23.36 | 22.40 | 21.70 |
|           |                 | 2640.3(41093)  | 23.79 | 22.59 | 21.51 |
|           |                 | 2593 (40620)   | 23.35 | 22.30 | 21.36 |
|           |                 | 2545.8(40148)  | 22.98 | 22.08 | 21.23 |
|           |                 | 2498.5 (39675) | 23.05 | 22.02 | 21.29 |
|           | 12RB-Middle (6) | 2687.5 (41565) | 23.57 | 22.75 | 21.70 |
|           |                 | 2640.3(41093)  | 23.80 | 22.72 | 21.96 |
|           |                 | 2593 (40620)   | 23.58 | 22.31 | 21.62 |
|           |                 | 2545.8(40148)  | 23.07 | 22.27 | 21.19 |
|           |                 | 2498.5 (39675) | 23.30 | 22.25 | 21.17 |
|           | 12RB-Low (0)    | 2687.5 (41565) | 23.79 | 22.49 | 21.78 |
|           |                 | 2640.3(41093)  | 23.40 | 22.49 | 21.65 |
|           |                 | 2593 (40620)   | 23.44 | 22.33 | 21.27 |
|           |                 | 2545.8(40148)  | 23.02 | 22.08 | 21.34 |
|           |                 | 2498.5 (39675) | 23.09 | 21.99 | 20.97 |
| 25RB (0)  | 2687.5 (41565)  | 23.85          | 22.57 | 21.75 |       |
|           | 2640.3(41093)   | 23.64          | 22.82 | 21.60 |       |
|           | 2593 (40620)    | 23.71          | 22.25 | 21.35 |       |
|           | 2545.8(40148)   | 23.09          | 22.35 | 21.15 |       |
|           | 2498.5 (39675)  | 23.13          | 22.04 | 20.98 |       |
| 10MHz     | 1RB-High (49)   | 2685 (41540)   | 23.47 | 23.65 | 22.31 |
|           |                 | 2639(41080)    | 23.42 | 23.61 | 22.43 |
|           |                 | 2593 (40620)   | 23.09 | 23.09 | 21.84 |

|              |                  |                |       |       |       |
|--------------|------------------|----------------|-------|-------|-------|
|              |                  | 2547(40160)    | 23.01 | 23.06 | 21.90 |
|              |                  | 2501 (39700)   | 23.12 | 22.98 | 21.63 |
|              | 1RB-Middle (24)  | 2685 (41540)   | 23.80 | 23.92 | 22.34 |
|              |                  | 2639(41080)    | 23.74 | 23.72 | 22.51 |
|              |                  | 2593 (40620)   | 23.68 | 23.37 | 22.10 |
|              |                  | 2547(40160)    | 23.31 | 23.35 | 22.06 |
|              |                  | 2501 (39700)   | 23.67 | 23.10 | 22.06 |
|              | 1RB-Low (0)      | 2685 (41540)   | 23.50 | 23.74 | 22.10 |
|              |                  | 2639(41080)    | 23.47 | 23.63 | 22.40 |
|              |                  | 2593 (40620)   | 23.47 | 23.26 | 21.93 |
|              |                  | 2547(40160)    | 23.23 | 23.20 | 21.91 |
|              |                  | 2501 (39700)   | 22.98 | 23.14 | 21.67 |
|              | 25RB-High (25)   | 2685 (41540)   | 23.34 | 22.58 | 21.53 |
|              |                  | 2639(41080)    | 23.65 | 22.68 | 21.78 |
|              |                  | 2593 (40620)   | 23.22 | 22.35 | 21.21 |
|              |                  | 2547(40160)    | 23.01 | 22.34 | 21.28 |
|              |                  | 2501 (39700)   | 23.07 | 22.16 | 21.38 |
|              | 25RB-Middle (12) | 2685 (41540)   | 23.67 | 22.71 | 21.76 |
|              |                  | 2639(41080)    | 23.71 | 22.71 | 21.93 |
|              |                  | 2593 (40620)   | 23.61 | 22.51 | 21.53 |
|              |                  | 2547(40160)    | 23.24 | 22.29 | 21.21 |
|              |                  | 2501 (39700)   | 23.44 | 22.03 | 21.16 |
|              | 25RB-Low (0)     | 2685 (41540)   | 23.75 | 22.81 | 21.80 |
|              |                  | 2639(41080)    | 23.49 | 22.55 | 21.68 |
|              |                  | 2593 (40620)   | 23.23 | 22.12 | 21.38 |
| 2547(40160)  |                  | 23.09          | 22.21 | 21.19 |       |
| 2501 (39700) |                  | 23.04          | 21.81 | 21.14 |       |
| 50RB (0)     | 2685 (41540)     | 23.54          | 22.63 | 21.71 |       |
|              | 2639(41080)      | 23.84          | 22.84 | 21.82 |       |
|              | 2593 (40620)     | 23.70          | 22.34 | 21.46 |       |
|              | 2547(40160)      | 22.99          | 21.99 | 21.10 |       |
|              | 2501 (39700)     | 23.26          | 22.16 | 21.03 |       |
| 15MHz        | 1RB-High (74)    | 2682.5 (41515) | 23.60 | 23.41 | 22.31 |
|              |                  | 2637.8(41068)  | 23.71 | 23.73 | 22.39 |
|              |                  | 2593 (40620)   | 23.16 | 23.38 | 21.77 |
|              |                  | 2548.3(40173)  | 23.15 | 23.20 | 21.90 |
|              |                  | 2503.5 (39725) | 23.29 | 22.99 | 21.96 |
|              | 1RB-Middle (37)  | 2682.5 (41515) | 23.85 | 23.77 | 22.28 |
|              |                  | 2637.8(41068)  | 23.56 | 23.76 | 22.40 |
|              |                  | 2593 (40620)   | 23.96 | 23.51 | 21.97 |
|              |                  | 2548.3(40173)  | 23.46 | 23.18 | 21.93 |

|       |                  |                |       |       |       |
|-------|------------------|----------------|-------|-------|-------|
|       |                  | 2503.5 (39725) | 23.52 | 23.40 | 21.76 |
|       | 1RB-Low (0)      | 2682.5 (41515) | 23.80 | 23.64 | 22.24 |
|       |                  | 2637.8(41068)  | 23.43 | 23.47 | 22.08 |
|       |                  | 2593 (40620)   | 23.17 | 23.16 | 22.08 |
|       |                  | 2548.3(40173)  | 23.26 | 23.03 | 21.71 |
|       |                  | 2503.5 (39725) | 23.11 | 23.07 | 21.78 |
|       | 36RB-High (38)   | 2682.5 (41515) | 23.64 | 22.66 | 21.51 |
|       |                  | 2637.8(41068)  | 23.52 | 22.75 | 21.68 |
|       |                  | 2593 (40620)   | 23.49 | 22.37 | 21.41 |
|       |                  | 2548.3(40173)  | 23.18 | 22.26 | 21.13 |
|       |                  | 2503.5 (39725) | 23.03 | 22.38 | 21.33 |
|       | 36RB-Middle (19) | 2682.5 (41515) | 23.63 | 22.74 | 21.58 |
|       |                  | 2637.8(41068)  | 23.65 | 22.79 | 21.64 |
|       |                  | 2593 (40620)   | 23.64 | 22.32 | 21.38 |
|       |                  | 2548.3(40173)  | 23.18 | 22.33 | 21.22 |
|       |                  | 2503.5 (39725) | 23.62 | 22.31 | 21.24 |
|       | 36RB-Low (0)     | 2682.5 (41515) | 23.77 | 22.78 | 21.79 |
|       |                  | 2637.8(41068)  | 23.40 | 22.63 | 21.52 |
|       |                  | 2593 (40620)   | 23.16 | 22.46 | 21.29 |
|       |                  | 2548.3(40173)  | 23.24 | 22.30 | 21.02 |
|       |                  | 2503.5 (39725) | 22.90 | 21.89 | 21.15 |
|       | 75RB (0)         | 2682.5 (41515) | 23.77 | 22.70 | 21.52 |
|       |                  | 2637.8(41068)  | 23.53 | 22.50 | 21.74 |
|       |                  | 2593 (40620)   | 23.65 | 22.35 | 21.40 |
|       |                  | 2548.3(40173)  | 23.06 | 22.02 | 21.00 |
|       |                  | 2503.5 (39725) | 23.13 | 22.05 | 21.22 |
| 20MHz | 1RB-High (99)    | 2680 (41490)   | 23.55 | 23.50 | 22.20 |
|       |                  | 2636.5(41055)  | 23.58 | 23.58 | 22.26 |
|       |                  | 2593 (40620)   | 23.26 | 23.27 | 21.95 |
|       |                  | 2549.5(40185)  | 23.15 | 23.16 | 21.81 |
|       |                  | 2506 (39750)   | 23.14 | 23.13 | 21.78 |
|       | 1RB-Middle (50)  | 2680 (41490)   | 23.77 | 23.75 | 22.42 |
|       |                  | 2636.5(41055)  | 23.74 | 23.75 | 22.45 |
|       |                  | 2593 (40620)   | 23.79 | 23.46 | 22.13 |
|       |                  | 2549.5(40185)  | 23.34 | 23.35 | 21.94 |
|       |                  | 2506 (39750)   | 23.50 | 23.27 | 21.92 |
|       | 1RB-Low (0)      | 2680 (41490)   | 23.63 | 23.61 | 22.27 |
|       |                  | 2636.5(41055)  | 23.56 | 23.54 | 22.26 |
|       |                  | 2593 (40620)   | 23.34 | 23.33 | 22.00 |
|       |                  | 2549.5(40185)  | 23.12 | 23.14 | 21.75 |
|       |                  | 2506 (39750)   | 23.10 | 23.04 | 21.71 |

|  |                  |               |       |       |       |
|--|------------------|---------------|-------|-------|-------|
|  | 50RB-High (50)   | 2680 (41490)  | 23.52 | 22.56 | 21.59 |
|  |                  | 2636.5(41055) | 23.62 | 22.64 | 21.65 |
|  |                  | 2593 (40620)  | 23.32 | 22.30 | 21.38 |
|  |                  | 2549.5(40185) | 23.12 | 22.16 | 21.20 |
|  |                  | 2506 (39750)  | 23.18 | 22.20 | 21.23 |
|  | 50RB-Middle (25) | 2680 (41490)  | 23.69 | 22.70 | 21.74 |
|  |                  | 2636.5(41055) | 23.68 | 22.71 | 21.78 |
|  |                  | 2593 (40620)  | 23.72 | 22.39 | 21.46 |
|  |                  | 2549.5(40185) | 23.16 | 22.20 | 21.27 |
|  |                  | 2506 (39750)  | 23.45 | 22.17 | 21.23 |
|  | 50RB-Low (0)     | 2680 (41490)  | 23.64 | 22.66 | 21.73 |
|  |                  | 2636.5(41055) | 23.58 | 22.60 | 21.64 |
|  |                  | 2593 (40620)  | 23.27 | 22.30 | 21.38 |
|  |                  | 2549.5(40185) | 23.11 | 22.12 | 21.16 |
|  |                  | 2506 (39750)  | 22.99 | 21.96 | 21.03 |
|  | 100RB (0)        | 2680 (41490)  | 23.69 | 22.70 | 21.70 |
|  |                  | 2636.5(41055) | 23.67 | 22.67 | 21.66 |
|  |                  | 2593 (40620)  | 23.74 | 22.34 | 21.40 |
|  |                  | 2549.5(40185) | 23.15 | 22.17 | 21.16 |
|  |                  | 2506 (39750)  | 23.20 | 22.14 | 21.14 |

**LTE Band66 ANT4 (DSI1)**

| BANDWIDTH | Number of RBs  | Frequency       | QPSK  | 16QAM | 64QAM |
|-----------|----------------|-----------------|-------|-------|-------|
| 1.4MHz    | 1RB-High (5)   | 1779.3 (132665) | 15.27 | 15.47 | 15.32 |
|           |                | 1745 (132322)   | 15.16 | 15.64 | 15.60 |
|           |                | 1710.7 (131979) | 15.37 | 15.63 | 15.47 |
|           | 1RB-Middle (3) | 1779.3 (132665) | 15.55 | 15.52 | 15.73 |
|           |                | 1745 (132322)   | 15.57 | 15.71 | 15.61 |
|           |                | 1710.7 (131979) | 15.77 | 15.84 | 15.51 |
|           | 1RB-Low (0)    | 1779.3 (132665) | 15.50 | 15.39 | 15.47 |
|           |                | 1745 (132322)   | 15.48 | 15.76 | 15.55 |
|           |                | 1710.7 (131979) | 15.53 | 15.47 | 15.51 |
|           | 3RB-High (3)   | 1779.3 (132665) | 15.39 | 15.62 | 15.58 |
|           |                | 1745 (132322)   | 15.41 | 15.59 | 15.53 |
|           |                | 1710.7 (131979) | 15.40 | 15.53 | 15.58 |
|           | 3RB-Middle (1) | 1779.3 (132665) | 15.61 | 15.84 | 15.70 |
|           |                | 1745 (132322)   | 15.51 | 15.94 | 15.54 |
|           |                | 1710.7 (131979) | 15.71 | 15.60 | 15.72 |
|           | 3RB-Low (0)    | 1779.3 (132665) | 15.40 | 15.33 | 15.32 |
|           |                | 1745 (132322)   | 15.29 | 15.64 | 15.55 |



|      |                 |                 |       |       |       |
|------|-----------------|-----------------|-------|-------|-------|
|      |                 | 1710.7 (131979) | 15.21 | 15.68 | 15.37 |
|      | 6RB (0)         | 1779.3 (132665) | 15.48 | 15.36 | 15.54 |
|      |                 | 1745 (132322)   | 15.61 | 15.52 | 15.54 |
|      |                 | 1710.7 (131979) | 15.44 | 15.33 | 15.28 |
| 3MHz | 1RB-High (14)   | 1778.5 (132657) | 15.39 | 15.67 | 15.33 |
|      |                 | 1745 (132322)   | 15.46 | 15.72 | 15.48 |
|      |                 | 1711.5 (131987) | 15.38 | 15.45 | 15.56 |
|      | 1RB-Middle (7)  | 1778.5 (132657) | 15.65 | 15.71 | 15.75 |
|      |                 | 1745 (132322)   | 15.65 | 15.72 | 15.76 |
|      |                 | 1711.5 (131987) | 15.60 | 15.67 | 15.49 |
|      | 1RB-Low (0)     | 1778.5 (132657) | 15.28 | 15.49 | 15.57 |
|      |                 | 1745 (132322)   | 15.48 | 15.78 | 15.48 |
|      |                 | 1711.5 (131987) | 15.42 | 15.60 | 15.40 |
|      | 8RB-High (7)    | 1778.5 (132657) | 15.26 | 15.45 | 15.31 |
|      |                 | 1745 (132322)   | 15.78 | 15.36 | 15.43 |
|      |                 | 1711.5 (131987) | 15.51 | 15.62 | 15.50 |
|      | 8RB-Middle (4)  | 1778.5 (132657) | 15.44 | 15.33 | 15.56 |
|      |                 | 1745 (132322)   | 15.71 | 15.64 | 15.52 |
|      |                 | 1711.5 (131987) | 15.43 | 15.54 | 15.67 |
|      | 8RB-Low (0)     | 1778.5 (132657) | 15.61 | 15.58 | 15.28 |
|      |                 | 1745 (132322)   | 15.64 | 15.64 | 15.61 |
|      |                 | 1711.5 (131987) | 15.54 | 15.46 | 15.56 |
|      | 15RB (0)        | 1778.5 (132657) | 15.62 | 15.32 | 15.51 |
|      |                 | 1745 (132322)   | 15.47 | 15.45 | 15.59 |
|      |                 | 1711.5 (131987) | 15.57 | 15.30 | 15.58 |
| 5MHz | 1RB-High (24)   | 1777.5 (132647) | 15.27 | 15.77 | 15.50 |
|      |                 | 1745 (132322)   | 15.31 | 15.66 | 15.64 |
|      |                 | 1712.5 (131997) | 15.36 | 15.76 | 15.62 |
|      | 1RB-Middle (12) | 1777.5 (132647) | 15.68 | 15.84 | 15.60 |
|      |                 | 1745 (132322)   | 15.85 | 15.65 | 15.71 |
|      |                 | 1712.5 (131997) | 15.52 | 15.75 | 15.56 |
|      | 1RB-Low (0)     | 1777.5 (132647) | 15.17 | 15.54 | 15.26 |
|      |                 | 1745 (132322)   | 15.26 | 15.75 | 15.39 |
|      |                 | 1712.5 (131997) | 15.22 | 15.49 | 15.32 |
|      | 12RB-High (13)  | 1777.5 (132647) | 15.57 | 15.50 | 15.35 |
|      |                 | 1745 (132322)   | 15.55 | 15.39 | 15.36 |
|      |                 | 1712.5 (131997) | 15.55 | 15.52 | 15.61 |
|      | 12RB-Middle (6) | 1777.5 (132647) | 15.51 | 15.35 | 15.39 |
|      |                 | 1745 (132322)   | 15.63 | 15.48 | 15.55 |
|      |                 | 1712.5 (131997) | 15.57 | 15.51 | 15.37 |
|      | 12RB-Low (0)    | 1777.5 (132647) | 15.31 | 15.32 | 15.35 |

|                  |                  |                 |                 |       |       |       |
|------------------|------------------|-----------------|-----------------|-------|-------|-------|
|                  | 25RB (0)         | 1745 (132322)   | 15.44           | 15.37 | 15.63 |       |
|                  |                  | 1712.5 (131997) | 15.40           | 15.38 | 15.51 |       |
|                  |                  | 1777.5 (132647) | 15.32           | 15.33 | 15.20 |       |
|                  |                  | 1745 (132322)   | 15.50           | 15.36 | 15.33 |       |
|                  |                  | 1712.5 (131997) | 15.56           | 15.57 | 15.47 |       |
| 10MHz            | 1RB-High (49)    | 1775 (132622)   | 15.34           | 15.66 | 15.36 |       |
|                  |                  | 1745 (132322)   | 15.23           | 15.57 | 15.72 |       |
|                  |                  | 1715 (132022)   | 15.19           | 15.56 | 15.29 |       |
|                  | 1RB-Middle (24)  | 1775 (132622)   | 15.53           | 15.67 | 15.69 |       |
|                  |                  | 1745 (132322)   | 15.66           | 15.65 | 15.63 |       |
|                  |                  | 1715 (132022)   | 15.64           | 15.95 | 15.55 |       |
|                  | 1RB-Low (0)      | 1775 (132622)   | 15.22           | 15.68 | 15.52 |       |
|                  |                  | 1745 (132322)   | 15.51           | 15.54 | 15.38 |       |
|                  |                  | 1715 (132022)   | 15.40           | 15.43 | 15.57 |       |
|                  | 25RB-High (25)   | 1775 (132622)   | 15.43           | 15.20 | 15.55 |       |
|                  |                  | 1745 (132322)   | 15.82           | 15.55 | 15.37 |       |
|                  |                  | 1715 (132022)   | 15.46           | 15.72 | 15.45 |       |
|                  | 25RB-Middle (12) | 1775 (132622)   | 15.42           | 15.35 | 15.51 |       |
|                  |                  | 1745 (132322)   | 15.66           | 15.36 | 15.50 |       |
|                  |                  | 1715 (132022)   | 15.67           | 15.41 | 15.64 |       |
|                  | 25RB-Low (0)     | 1775 (132622)   | 15.53           | 15.31 | 15.29 |       |
|                  |                  | 1745 (132322)   | 15.60           | 15.61 | 15.46 |       |
|                  |                  | 1715 (132022)   | 15.56           | 15.41 | 15.59 |       |
|                  | 50RB (0)         | 1775 (132622)   | 15.57           | 15.38 | 15.36 |       |
|                  |                  | 1745 (132322)   | 15.52           | 15.39 | 15.34 |       |
|                  |                  | 1715 (132022)   | 15.41           | 15.60 | 15.54 |       |
|                  | 15MHz            | 1RB-High (74)   | 1772.5 (132597) | 15.47 | 15.65 | 15.65 |
|                  |                  |                 | 1745 (132322)   | 15.49 | 15.54 | 15.69 |
|                  |                  |                 | 1717.5 (132047) | 15.20 | 15.59 | 15.35 |
| 1RB-Middle (37)  |                  | 1772.5 (132597) | 15.56           | 15.85 | 15.50 |       |
|                  |                  | 1745 (132322)   | 15.78           | 15.89 | 15.63 |       |
|                  |                  | 1717.5 (132047) | 15.68           | 15.93 | 15.84 |       |
| 1RB-Low (0)      |                  | 1772.5 (132597) | 15.15           | 15.39 | 15.56 |       |
|                  |                  | 1745 (132322)   | 15.37           | 15.60 | 15.38 |       |
|                  |                  | 1717.5 (132047) | 15.46           | 15.62 | 15.38 |       |
| 36RB-High (38)   |                  | 1772.5 (132597) | 15.42           | 15.51 | 15.32 |       |
|                  |                  | 1745 (132322)   | 15.69           | 15.56 | 15.51 |       |
|                  |                  | 1717.5 (132047) | 15.59           | 15.56 | 15.61 |       |
| 36RB-Middle (19) |                  | 1772.5 (132597) | 15.45           | 15.39 | 15.33 |       |
|                  |                  | 1745 (132322)   | 15.84           | 15.59 | 15.63 |       |
|                  |                  | 1717.5 (132047) | 15.42           | 15.59 | 15.55 |       |

|       |                  |                 |       |       |       |
|-------|------------------|-----------------|-------|-------|-------|
|       | 36RB-Low (0)     | 1772.5 (132597) | 15.45 | 15.61 | 15.46 |
|       |                  | 1745 (132322)   | 15.62 | 15.49 | 15.62 |
|       |                  | 1717.5 (132047) | 15.40 | 15.37 | 15.33 |
|       | 75RB (0)         | 1772.5 (132597) | 15.54 | 15.20 | 15.38 |
|       |                  | 1745 (132322)   | 15.52 | 15.49 | 15.35 |
|       |                  | 1717.5 (132047) | 15.54 | 15.53 | 15.60 |
| 20MHz | 1RB-High (99)    | 1770 (132572)   | 15.33 | 15.65 | 15.47 |
|       |                  | 1745 (132322)   | 15.33 | 15.62 | 15.57 |
|       |                  | 1720 (132072)   | 15.35 | 15.60 | 15.44 |
|       | 1RB-Middle (50)  | 1770 (132572)   | 15.50 | 15.69 | 15.65 |
|       |                  | 1745 (132322)   | 15.68 | 15.79 | 15.66 |
|       |                  | 1720 (132072)   | 15.60 | 15.77 | 15.67 |
|       | 1RB-Low (0)      | 1770 (132572)   | 15.33 | 15.51 | 15.43 |
|       |                  | 1745 (132322)   | 15.37 | 15.62 | 15.45 |
|       |                  | 1720 (132072)   | 15.36 | 15.59 | 15.48 |
|       | 50RB-High (50)   | 1770 (132572)   | 15.42 | 15.38 | 15.40 |
|       |                  | 1745 (132322)   | 15.67 | 15.43 | 15.44 |
|       |                  | 1720 (132072)   | 15.56 | 15.56 | 15.55 |
|       | 50RB-Middle (25) | 1770 (132572)   | 15.55 | 15.50 | 15.51 |
|       |                  | 1745 (132322)   | 15.75 | 15.49 | 15.49 |
|       |                  | 1720 (132072)   | 15.53 | 15.52 | 15.51 |
|       | 50RB-Low (0)     | 1770 (132572)   | 15.48 | 15.44 | 15.45 |
|       |                  | 1745 (132322)   | 15.50 | 15.46 | 15.47 |
|       |                  | 1720 (132072)   | 15.40 | 15.40 | 15.43 |
|       | 100RB (0)        | 1770 (132572)   | 15.44 | 15.37 | 15.38 |
|       |                  | 1745 (132322)   | 15.44 | 15.41 | 15.42 |
|       |                  | 1720 (132072)   | 15.47 | 15.45 | 15.45 |

**LTE Band66 ANT4 (DSI3)**

| BANDWIDTH | Number of RBs  | Frequency       | QPSK  | 16QAM | 64QAM |
|-----------|----------------|-----------------|-------|-------|-------|
| 1.4MHz    | 1RB-High (5)   | 1779.3 (132665) | 19.41 | 19.69 | 19.69 |
|           |                | 1745 (132322)   | 19.81 | 19.86 | 19.72 |
|           |                | 1710.7 (131979) | 19.63 | 19.85 | 19.84 |
|           | 1RB-Middle (3) | 1779.3 (132665) | 19.88 | 19.99 | 19.84 |
|           |                | 1745 (132322)   | 19.74 | 20.08 | 19.91 |
|           |                | 1710.7 (131979) | 19.68 | 20.06 | 20.09 |
|           | 1RB-Low (0)    | 1779.3 (132665) | 19.55 | 19.98 | 19.65 |
|           |                | 1745 (132322)   | 19.55 | 19.81 | 19.76 |
|           |                | 1710.7 (131979) | 19.54 | 20.08 | 19.79 |
|           | 3RB-High (3)   | 1779.3 (132665) | 19.40 | 19.90 | 19.92 |

|                 |                |                 |                 |       |       |       |
|-----------------|----------------|-----------------|-----------------|-------|-------|-------|
|                 |                | 1745 (132322)   | 19.79           | 19.96 | 19.78 |       |
|                 |                | 1710.7 (131979) | 19.56           | 19.98 | 19.82 |       |
|                 | 3RB-Middle (1) | 1779.3 (132665) | 19.82           | 19.91 | 19.80 |       |
|                 |                | 1745 (132322)   | 19.82           | 19.85 | 19.94 |       |
|                 | 3RB-Low (0)    | 1710.7 (131979) | 19.76           | 20.22 | 19.98 |       |
|                 |                | 1779.3 (132665) | 19.78           | 19.87 | 19.70 |       |
|                 |                | 1745 (132322)   | 19.55           | 20.09 | 20.02 |       |
|                 | 6RB (0)        | 1710.7 (131979) | 19.86           | 20.10 | 20.07 |       |
|                 |                | 1779.3 (132665) | 19.58           | 19.70 | 19.59 |       |
|                 |                | 1745 (132322)   | 19.77           | 19.92 | 19.94 |       |
| 3MHz            | 1RB-High (14)  | 1710.7 (131979) | 19.70           | 19.80 | 19.89 |       |
|                 |                | 1778.5 (132657) | 19.54           | 19.77 | 19.93 |       |
|                 |                | 1745 (132322)   | 19.61           | 19.78 | 19.76 |       |
|                 | 1RB-Middle (7) | 1711.5 (131987) | 19.60           | 20.09 | 19.78 |       |
|                 |                | 1778.5 (132657) | 19.78           | 20.22 | 19.86 |       |
|                 |                | 1745 (132322)   | 19.81           | 20.16 | 19.92 |       |
|                 | 1RB-Low (0)    | 1711.5 (131987) | 19.67           | 20.03 | 19.94 |       |
|                 |                | 1778.5 (132657) | 19.51           | 20.00 | 19.77 |       |
|                 |                | 1745 (132322)   | 19.86           | 20.13 | 19.88 |       |
|                 | 8RB-High (7)   | 1711.5 (131987) | 19.58           | 19.98 | 19.94 |       |
|                 |                | 1778.5 (132657) | 19.77           | 19.63 | 19.73 |       |
|                 |                | 1745 (132322)   | 19.70           | 19.84 | 19.67 |       |
|                 | 8RB-Middle (4) | 1711.5 (131987) | 19.65           | 19.91 | 20.08 |       |
|                 |                | 1778.5 (132657) | 20.04           | 19.66 | 19.76 |       |
|                 |                | 1745 (132322)   | 19.86           | 19.85 | 19.81 |       |
|                 | 8RB-Low (0)    | 1711.5 (131987) | 19.90           | 19.99 | 20.04 |       |
|                 |                | 1778.5 (132657) | 19.74           | 19.67 | 19.71 |       |
|                 |                | 1745 (132322)   | 19.76           | 19.93 | 19.91 |       |
|                 | 15RB (0)       | 1711.5 (131987) | 19.97           | 19.73 | 19.69 |       |
|                 |                | 1778.5 (132657) | 19.66           | 19.83 | 19.80 |       |
|                 |                | 1745 (132322)   | 19.71           | 19.77 | 19.62 |       |
|                 | 5MHz           | 1RB-High (24)   | 1711.5 (131987) | 19.88 | 19.92 | 19.66 |
|                 |                |                 | 1777.5 (132647) | 19.63 | 19.73 | 19.85 |
|                 |                |                 | 1745 (132322)   | 19.61 | 19.74 | 19.72 |
|                 |                | 1RB-Middle (12) | 1712.5 (131997) | 19.79 | 19.85 | 19.66 |
|                 |                |                 | 1777.5 (132647) | 19.86 | 20.16 | 19.88 |
|                 |                |                 | 1745 (132322)   | 19.91 | 19.85 | 19.95 |
|                 |                | 1RB-Low (0)     | 1712.5 (131997) | 20.00 | 20.14 | 19.91 |
| 1777.5 (132647) |                |                 | 19.60           | 19.92 | 19.87 |       |
| 1745 (132322)   |                |                 | 19.85           | 19.97 | 19.75 |       |
|                 |                |                 | 1712.5 (131997) | 19.64 | 19.95 | 20.14 |

|                 |                  |                 |                 |       |       |       |
|-----------------|------------------|-----------------|-----------------|-------|-------|-------|
|                 | 12RB-High (13)   | 1777.5 (132647) | 19.65           | 19.68 | 19.70 |       |
|                 |                  | 1745 (132322)   | 19.62           | 19.62 | 19.73 |       |
|                 |                  | 1712.5 (131997) | 19.84           | 19.80 | 20.07 |       |
|                 | 12RB-Middle (6)  | 1777.5 (132647) | 19.79           | 19.81 | 20.00 |       |
|                 |                  | 1745 (132322)   | 19.96           | 19.71 | 19.80 |       |
|                 |                  | 1712.5 (131997) | 19.86           | 19.84 | 19.94 |       |
|                 | 12RB-Low (0)     | 1777.5 (132647) | 19.78           | 19.57 | 19.70 |       |
|                 |                  | 1745 (132322)   | 19.69           | 19.91 | 19.98 |       |
|                 |                  | 1712.5 (131997) | 19.71           | 19.76 | 19.91 |       |
|                 | 25RB (0)         | 1777.5 (132647) | 19.89           | 19.88 | 19.65 |       |
|                 |                  | 1745 (132322)   | 19.89           | 19.77 | 19.76 |       |
|                 |                  | 1712.5 (131997) | 19.79           | 19.76 | 19.87 |       |
| 10MHz           | 1RB-High (49)    | 1775 (132622)   | 19.73           | 19.72 | 19.63 |       |
|                 |                  | 1745 (132322)   | 19.73           | 19.92 | 19.98 |       |
|                 |                  | 1715 (132022)   | 19.62           | 19.88 | 19.74 |       |
|                 | 1RB-Middle (24)  | 1775 (132622)   | 19.93           | 20.21 | 20.00 |       |
|                 |                  | 1745 (132322)   | 19.91           | 19.95 | 20.06 |       |
|                 |                  | 1715 (132022)   | 19.97           | 20.18 | 19.99 |       |
|                 | 1RB-Low (0)      | 1775 (132622)   | 19.75           | 19.86 | 19.93 |       |
|                 |                  | 1745 (132322)   | 19.79           | 20.09 | 19.91 |       |
|                 |                  | 1715 (132022)   | 19.57           | 20.03 | 20.03 |       |
|                 | 25RB-High (25)   | 1775 (132622)   | 19.71           | 19.66 | 19.55 |       |
|                 |                  | 1745 (132322)   | 19.83           | 19.76 | 19.77 |       |
|                 |                  | 1715 (132022)   | 19.62           | 20.08 | 19.84 |       |
|                 | 25RB-Middle (12) | 1775 (132622)   | 19.89           | 19.73 | 19.78 |       |
|                 |                  | 1745 (132322)   | 19.96           | 19.86 | 20.00 |       |
|                 |                  | 1715 (132022)   | 19.96           | 19.80 | 20.08 |       |
|                 | 25RB-Low (0)     | 1775 (132622)   | 19.76           | 19.74 | 19.86 |       |
|                 |                  | 1745 (132322)   | 19.90           | 19.74 | 20.00 |       |
|                 |                  | 1715 (132022)   | 19.82           | 19.86 | 19.70 |       |
|                 | 50RB (0)         | 1775 (132622)   | 19.58           | 19.71 | 19.87 |       |
|                 |                  | 1745 (132322)   | 19.84           | 19.77 | 19.80 |       |
|                 |                  | 1715 (132022)   | 19.98           | 19.96 | 19.94 |       |
|                 | 15MHz            | 1RB-High (74)   | 1772.5 (132597) | 19.58 | 19.81 | 19.75 |
|                 |                  |                 | 1745 (132322)   | 19.49 | 19.71 | 19.68 |
|                 |                  |                 | 1717.5 (132047) | 19.59 | 20.09 | 19.84 |
| 1RB-Middle (37) |                  | 1772.5 (132597) | 19.59           | 20.03 | 20.02 |       |
|                 |                  | 1745 (132322)   | 19.71           | 20.11 | 19.97 |       |
|                 |                  | 1717.5 (132047) | 19.81           | 20.16 | 19.91 |       |
| 1RB-Low (0)     |                  | 1772.5 (132597) | 19.68           | 19.94 | 19.73 |       |
|                 |                  | 1745 (132322)   | 19.74           | 19.95 | 19.97 |       |

|                  |                  |                 |                 |       |       |       |
|------------------|------------------|-----------------|-----------------|-------|-------|-------|
|                  | 36RB-High (38)   | 1717.5 (132047) | 19.62           | 19.97 | 19.89 |       |
|                  |                  | 1772.5 (132597) | 19.76           | 19.79 | 19.67 |       |
|                  |                  | 1745 (132322)   | 19.62           | 19.60 | 19.96 |       |
|                  | 36RB-Middle (19) | 1717.5 (132047) | 19.77           | 19.82 | 20.05 |       |
|                  |                  | 1772.5 (132597) | 20.01           | 19.82 | 19.97 |       |
|                  |                  | 1745 (132322)   | 20.02           | 19.87 | 20.02 |       |
|                  | 36RB-Low (0)     | 1717.5 (132047) | 19.98           | 19.87 | 19.92 |       |
|                  |                  | 1772.5 (132597) | 19.91           | 19.61 | 19.67 |       |
|                  |                  | 1745 (132322)   | 19.73           | 19.78 | 19.83 |       |
|                  | 75RB (0)         | 1717.5 (132047) | 19.66           | 19.83 | 19.83 |       |
|                  |                  | 1772.5 (132597) | 19.63           | 19.54 | 19.57 |       |
|                  |                  | 1745 (132322)   | 19.60           | 19.60 | 19.59 |       |
|                  | 20MHz            | 1RB-High (99)   | 1717.5 (132047) | 19.98 | 19.94 | 19.70 |
|                  |                  |                 | 1770 (132572)   | 19.57 | 19.78 | 19.81 |
|                  |                  |                 | 1745 (132322)   | 19.66 | 19.87 | 19.82 |
| 1RB-Middle (50)  |                  | 1720 (132072)   | 19.68           | 19.92 | 19.80 |       |
|                  |                  | 1770 (132572)   | 19.75           | 20.09 | 19.89 |       |
|                  |                  | 1745 (132322)   | 19.85           | 20.03 | 19.99 |       |
| 1RB-Low (0)      |                  | 1720 (132072)   | 19.84           | 20.13 | 20.08 |       |
|                  |                  | 1770 (132572)   | 19.63           | 19.98 | 19.78 |       |
|                  |                  | 1745 (132322)   | 19.69           | 19.95 | 19.85 |       |
| 50RB-High (50)   |                  | 1720 (132072)   | 19.72           | 20.01 | 19.96 |       |
|                  |                  | 1770 (132572)   | 19.74           | 19.69 | 19.71 |       |
|                  |                  | 1745 (132322)   | 19.79           | 19.77 | 19.82 |       |
| 50RB-Middle (25) |                  | 1720 (132072)   | 19.80           | 19.92 | 19.91 |       |
|                  |                  | 1770 (132572)   | 19.87           | 19.81 | 19.87 |       |
|                  |                  | 1745 (132322)   | 19.96           | 19.85 | 19.85 |       |
| 50RB-Low (0)     | 1720 (132072)    | 19.91           | 19.90           | 19.90 |       |       |
|                  | 1770 (132572)    | 19.79           | 19.75           | 19.77 |       |       |
|                  | 1745 (132322)    | 19.87           | 19.82           | 19.84 |       |       |
| 100RB (0)        | 1720 (132072)    | 19.81           | 19.79           | 19.80 |       |       |
|                  | 1770 (132572)    | 19.73           | 19.71           | 19.69 |       |       |
|                  | 1745 (132322)    | 19.77           | 19.77           | 19.76 |       |       |
|                  |                  | 1720 (132072)   | 19.84           | 19.83 | 19.82 |       |

**LTE Band66 ANT4 (DSI4)**

| BANDWIDTH | Number of RBs | Frequency       | QPSK  | 16QAM | 64QAM |
|-----------|---------------|-----------------|-------|-------|-------|
| 1.4MHz    | 1RB-High (5)  | 1779.3 (132665) | 21.78 | 22.11 | 21.86 |
|           |               | 1745 (132322)   | 21.69 | 22.17 | 22.04 |
|           |               | 1710.7 (131979) | 21.90 | 22.33 | 22.13 |

|                |                |                 |                 |       |       |       |
|----------------|----------------|-----------------|-----------------|-------|-------|-------|
|                | 1RB-Middle (3) | 1779.3 (132665) | 22.25           | 22.17 | 22.17 |       |
|                |                | 1745 (132322)   | 22.08           | 22.14 | 22.32 |       |
|                |                | 1710.7 (131979) | 22.10           | 22.11 | 22.25 |       |
|                | 1RB-Low (0)    | 1779.3 (132665) | 21.69           | 22.13 | 21.97 |       |
|                |                | 1745 (132322)   | 21.96           | 22.19 | 22.04 |       |
|                |                | 1710.7 (131979) | 21.67           | 22.01 | 22.12 |       |
|                | 3RB-High (3)   | 1779.3 (132665) | 21.74           | 22.11 | 21.89 |       |
|                |                | 1745 (132322)   | 21.92           | 22.12 | 21.97 |       |
|                |                | 1710.7 (131979) | 21.65           | 22.13 | 21.83 |       |
|                | 3RB-Middle (1) | 1779.3 (132665) | 21.98           | 22.22 | 22.29 |       |
|                |                | 1745 (132322)   | 22.27           | 22.18 | 22.30 |       |
|                |                | 1710.7 (131979) | 22.26           | 22.19 | 22.38 |       |
|                | 3RB-Low (0)    | 1779.3 (132665) | 21.69           | 22.29 | 22.10 |       |
|                |                | 1745 (132322)   | 21.72           | 22.11 | 22.20 |       |
|                |                | 1710.7 (131979) | 21.92           | 22.04 | 22.18 |       |
|                | 6RB (0)        | 1779.3 (132665) | 21.96           | 22.04 | 21.43 |       |
|                |                | 1745 (132322)   | 22.14           | 21.95 | 21.55 |       |
|                |                | 1710.7 (131979) | 21.99           | 22.05 | 21.62 |       |
|                | 3MHz           | 1RB-High (14)   | 1778.5 (132657) | 21.93 | 22.11 | 21.93 |
|                |                |                 | 1745 (132322)   | 21.68 | 22.05 | 22.01 |
|                |                |                 | 1711.5 (131987) | 21.70 | 22.10 | 22.13 |
| 1RB-Middle (7) |                | 1778.5 (132657) | 22.14           | 22.21 | 22.11 |       |
|                |                | 1745 (132322)   | 22.16           | 22.18 | 22.25 |       |
|                |                | 1711.5 (131987) | 22.09           | 22.14 | 22.07 |       |
| 1RB-Low (0)    |                | 1778.5 (132657) | 21.80           | 22.06 | 21.86 |       |
|                |                | 1745 (132322)   | 21.89           | 22.08 | 22.18 |       |
|                |                | 1711.5 (131987) | 21.96           | 22.12 | 22.26 |       |
| 8RB-High (7)   |                | 1778.5 (132657) | 21.82           | 21.91 | 21.45 |       |
|                |                | 1745 (132322)   | 21.79           | 21.88 | 21.53 |       |
|                |                | 1711.5 (131987) | 22.20           | 21.90 | 21.50 |       |
| 8RB-Middle (4) |                | 1778.5 (132657) | 22.22           | 22.21 | 21.43 |       |
|                |                | 1745 (132322)   | 22.26           | 22.12 | 21.65 |       |
|                |                | 1711.5 (131987) | 21.97           | 21.85 | 21.43 |       |
| 8RB-Low (0)    |                | 1778.5 (132657) | 22.04           | 21.99 | 21.48 |       |
|                |                | 1745 (132322)   | 22.16           | 22.00 | 21.33 |       |
|                |                | 1711.5 (131987) | 21.97           | 21.98 | 21.54 |       |
| 15RB (0)       |                | 1778.5 (132657) | 21.94           | 21.79 | 21.42 |       |
|                |                | 1745 (132322)   | 21.93           | 21.96 | 21.35 |       |
|                |                | 1711.5 (131987) | 21.87           | 21.79 | 21.35 |       |
| 5MHz           | 1RB-High (24)  | 1777.5 (132647) | 21.78           | 22.15 | 21.89 |       |
|                |                | 1745 (132322)   | 21.69           | 22.02 | 21.95 |       |

|       |                  |                 |       |       |       |
|-------|------------------|-----------------|-------|-------|-------|
|       |                  | 1712.5 (131997) | 21.77 | 22.33 | 21.86 |
|       | 1RB-Middle (12)  | 1777.5 (132647) | 22.29 | 22.31 | 22.07 |
|       |                  | 1745 (132322)   | 22.13 | 22.39 | 22.38 |
|       |                  | 1712.5 (131997) | 22.19 | 22.16 | 22.20 |
|       | 1RB-Low (0)      | 1777.5 (132647) | 21.66 | 21.97 | 22.21 |
|       |                  | 1745 (132322)   | 21.92 | 22.00 | 22.16 |
|       |                  | 1712.5 (131997) | 21.69 | 22.11 | 21.91 |
|       | 12RB-High (13)   | 1777.5 (132647) | 21.90 | 21.94 | 21.28 |
|       |                  | 1745 (132322)   | 21.95 | 21.77 | 21.48 |
|       |                  | 1712.5 (131997) | 22.03 | 22.05 | 21.48 |
|       | 12RB-Middle (6)  | 1777.5 (132647) | 22.20 | 22.16 | 21.48 |
|       |                  | 1745 (132322)   | 22.05 | 22.15 | 21.53 |
|       |                  | 1712.5 (131997) | 21.99 | 21.85 | 21.71 |
|       | 12RB-Low (0)     | 1777.5 (132647) | 21.87 | 22.10 | 21.32 |
|       |                  | 1745 (132322)   | 21.90 | 21.96 | 21.56 |
|       |                  | 1712.5 (131997) | 21.86 | 21.94 | 21.54 |
|       | 25RB (0)         | 1777.5 (132647) | 22.10 | 22.06 | 21.64 |
|       |                  | 1745 (132322)   | 21.88 | 22.02 | 21.52 |
|       |                  | 1712.5 (131997) | 21.92 | 21.75 | 21.59 |
| 10MHz | 1RB-High (49)    | 1775 (132622)   | 21.96 | 22.06 | 21.83 |
|       |                  | 1745 (132322)   | 21.85 | 22.18 | 22.06 |
|       |                  | 1715 (132022)   | 21.67 | 22.21 | 22.11 |
|       | 1RB-Middle (24)  | 1775 (132622)   | 22.00 | 22.22 | 22.18 |
|       |                  | 1745 (132322)   | 22.20 | 22.21 | 22.40 |
|       |                  | 1715 (132022)   | 22.11 | 22.29 | 22.35 |
|       | 1RB-Low (0)      | 1775 (132622)   | 21.93 | 22.19 | 21.97 |
|       |                  | 1745 (132322)   | 21.96 | 21.98 | 22.00 |
|       |                  | 1715 (132022)   | 21.81 | 22.26 | 21.95 |
|       | 25RB-High (25)   | 1775 (132622)   | 22.04 | 21.90 | 21.46 |
|       |                  | 1745 (132322)   | 21.86 | 21.77 | 21.63 |
|       |                  | 1715 (132022)   | 21.90 | 22.18 | 21.60 |
|       | 25RB-Middle (12) | 1775 (132622)   | 22.01 | 21.98 | 21.64 |
|       |                  | 1745 (132322)   | 22.11 | 22.10 | 21.46 |
|       |                  | 1715 (132022)   | 22.02 | 22.15 | 21.53 |
|       | 25RB-Low (0)     | 1775 (132622)   | 21.94 | 21.81 | 21.39 |
|       |                  | 1745 (132322)   | 21.93 | 21.91 | 21.49 |
|       |                  | 1715 (132022)   | 21.88 | 22.09 | 21.53 |
|       | 50RB (0)         | 1775 (132622)   | 21.88 | 22.04 | 21.48 |
|       |                  | 1745 (132322)   | 21.99 | 21.96 | 21.53 |
|       |                  | 1715 (132022)   | 22.11 | 21.92 | 21.55 |
| 15MHz | 1RB-High (74)    | 1772.5 (132597) | 21.68 | 22.17 | 22.01 |



|       |                  |                 |       |       |       |
|-------|------------------|-----------------|-------|-------|-------|
|       |                  | 1745 (132322)   | 21.68 | 22.06 | 22.24 |
|       |                  | 1717.5 (132047) | 21.93 | 22.14 | 21.87 |
|       |                  | 1772.5 (132597) | 22.30 | 22.13 | 22.18 |
|       | 1RB-Middle (37)  | 1745 (132322)   | 22.20 | 22.07 | 22.13 |
|       |                  | 1717.5 (132047) | 22.06 | 22.09 | 22.29 |
|       | 1RB-Low (0)      | 1772.5 (132597) | 21.93 | 22.30 | 21.98 |
|       |                  | 1745 (132322)   | 21.89 | 22.34 | 22.11 |
|       |                  | 1717.5 (132047) | 21.90 | 22.24 | 22.20 |
|       | 36RB-High (38)   | 1772.5 (132597) | 21.79 | 21.78 | 21.61 |
|       |                  | 1745 (132322)   | 21.81 | 21.93 | 21.36 |
|       |                  | 1717.5 (132047) | 22.18 | 22.16 | 21.53 |
|       | 36RB-Middle (19) | 1772.5 (132597) | 22.09 | 22.21 | 21.43 |
|       |                  | 1745 (132322)   | 22.33 | 21.90 | 21.52 |
|       |                  | 1717.5 (132047) | 21.99 | 22.07 | 21.46 |
|       | 36RB-Low (0)     | 1772.5 (132597) | 22.05 | 21.97 | 21.65 |
|       |                  | 1745 (132322)   | 22.14 | 21.91 | 21.51 |
|       |                  | 1717.5 (132047) | 22.05 | 21.77 | 21.27 |
|       | 75RB (0)         | 1772.5 (132597) | 21.89 | 21.77 | 21.57 |
|       |                  | 1745 (132322)   | 22.01 | 21.87 | 21.44 |
|       |                  | 1717.5 (132047) | 21.94 | 21.86 | 21.50 |
| 20MHz | 1RB-High (99)    | 1770 (132572)   | 21.79 | 22.13 | 22.01 |
|       |                  | 1745 (132322)   | 21.81 | 22.10 | 22.06 |
|       |                  | 1720 (132072)   | 21.82 | 22.16 | 21.98 |
|       | 1RB-Middle (50)  | 1770 (132572)   | 22.13 | 22.27 | 22.18 |
|       |                  | 1745 (132322)   | 22.23 | 22.22 | 22.24 |
|       | 1RB-Low (0)      | 1720 (132072)   | 22.09 | 22.25 | 22.21 |
|       |                  | 1770 (132572)   | 21.81 | 22.14 | 22.04 |
|       |                  | 1745 (132322)   | 21.85 | 22.16 | 22.02 |
|       | 50RB-High (50)   | 1720 (132072)   | 21.84 | 22.10 | 22.09 |
|       |                  | 1770 (132572)   | 21.96 | 21.90 | 21.44 |
|       |                  | 1745 (132322)   | 21.96 | 21.94 | 21.49 |
|       | 50RB-Middle (25) | 1720 (132072)   | 22.07 | 22.05 | 21.57 |
|       |                  | 1770 (132572)   | 22.11 | 22.03 | 21.56 |
|       |                  | 1745 (132322)   | 22.21 | 22.01 | 21.55 |
|       | 50RB-Low (0)     | 1720 (132072)   | 22.04 | 22.03 | 21.53 |
|       |                  | 1770 (132572)   | 22.01 | 21.94 | 21.48 |
|       |                  | 1745 (132322)   | 22.02 | 21.99 | 21.51 |
|       | 100RB (0)        | 1720 (132072)   | 21.94 | 21.91 | 21.45 |
|       |                  | 1770 (132572)   | 21.96 | 21.92 | 21.46 |
|       |                  | 1745 (132322)   | 21.96 | 21.94 | 21.48 |
|       |                  | 1720 (132072)   | 21.97 | 21.93 | 21.47 |

## LTE Band66 ANT4 (DSI5)

| BANDWIDTH | Number of RBs  | Frequency       | QPSK  | 16QAM | 64QAM |
|-----------|----------------|-----------------|-------|-------|-------|
| 1.4MHz    | 1RB-High (5)   | 1779.3 (132665) | 18.51 | 18.46 | 18.39 |
|           |                | 1745 (132322)   | 18.57 | 18.36 | 18.59 |
|           |                | 1710.7 (131979) | 18.37 | 18.60 | 18.40 |
|           | 1RB-Middle (3) | 1779.3 (132665) | 18.54 | 18.67 | 18.61 |
|           |                | 1745 (132322)   | 18.78 | 18.80 | 18.67 |
|           |                | 1710.7 (131979) | 18.53 | 18.58 | 18.71 |
|           | 1RB-Low (0)    | 1779.3 (132665) | 18.40 | 18.44 | 18.38 |
|           |                | 1745 (132322)   | 18.23 | 18.63 | 18.53 |
|           |                | 1710.7 (131979) | 18.42 | 18.66 | 18.43 |
|           | 3RB-High (3)   | 1779.3 (132665) | 18.23 | 18.32 | 18.62 |
|           |                | 1745 (132322)   | 18.21 | 18.54 | 18.66 |
|           |                | 1710.7 (131979) | 18.41 | 18.56 | 18.66 |
|           | 3RB-Middle (1) | 1779.3 (132665) | 18.45 | 18.62 | 18.40 |
|           |                | 1745 (132322)   | 18.87 | 18.87 | 18.61 |
|           |                | 1710.7 (131979) | 18.70 | 18.87 | 18.73 |
|           | 3RB-Low (0)    | 1779.3 (132665) | 18.50 | 18.67 | 18.24 |
|           |                | 1745 (132322)   | 18.54 | 18.45 | 18.64 |
|           |                | 1710.7 (131979) | 18.33 | 18.64 | 18.44 |
|           | 6RB (0)        | 1779.3 (132665) | 18.32 | 18.60 | 18.47 |
|           |                | 1745 (132322)   | 18.62 | 18.58 | 18.43 |
|           |                | 1710.7 (131979) | 18.47 | 18.46 | 18.32 |
| 3MHz      | 1RB-High (14)  | 1778.5 (132657) | 18.46 | 18.68 | 18.35 |
|           |                | 1745 (132322)   | 18.21 | 18.54 | 18.51 |
|           |                | 1711.5 (131987) | 18.56 | 18.62 | 18.42 |
|           | 1RB-Middle (7) | 1778.5 (132657) | 18.66 | 18.68 | 18.65 |
|           |                | 1745 (132322)   | 18.64 | 18.82 | 18.68 |
|           |                | 1711.5 (131987) | 18.62 | 18.60 | 18.56 |
|           | 1RB-Low (0)    | 1778.5 (132657) | 18.29 | 18.49 | 18.35 |
|           |                | 1745 (132322)   | 18.44 | 18.41 | 18.61 |
|           |                | 1711.5 (131987) | 18.24 | 18.49 | 18.55 |
|           | 8RB-High (7)   | 1778.5 (132657) | 18.31 | 18.48 | 18.31 |
|           |                | 1745 (132322)   | 18.65 | 18.44 | 18.40 |
|           |                | 1711.5 (131987) | 18.49 | 18.51 | 18.73 |
|           | 8RB-Middle (4) | 1778.5 (132657) | 18.77 | 18.56 | 18.56 |
|           |                | 1745 (132322)   | 18.64 | 18.55 | 18.67 |
|           |                | 1711.5 (131987) | 18.74 | 18.41 | 18.49 |
|           | 8RB-Low (0)    | 1778.5 (132657) | 18.52 | 18.57 | 18.59 |
|           |                | 1745 (132322)   | 18.37 | 18.51 | 18.59 |

|                  |                 |                 |               |       |       |       |
|------------------|-----------------|-----------------|---------------|-------|-------|-------|
|                  |                 | 1711.5 (131987) | 18.28         | 18.51 | 18.60 |       |
|                  | 15RB (0)        | 1778.5 (132657) | 18.46         | 18.25 | 18.41 |       |
|                  |                 | 1745 (132322)   | 18.60         | 18.49 | 18.51 |       |
|                  |                 | 1711.5 (131987) | 18.58         | 18.42 | 18.37 |       |
| 5MHz             | 1RB-High (24)   | 1777.5 (132647) | 18.24         | 18.40 | 18.44 |       |
|                  |                 | 1745 (132322)   | 18.55         | 18.42 | 18.48 |       |
|                  |                 | 1712.5 (131997) | 18.35         | 18.64 | 18.47 |       |
|                  | 1RB-Middle (12) | 1777.5 (132647) | 18.56         | 18.95 | 18.68 |       |
|                  |                 | 1745 (132322)   | 18.76         | 18.91 | 18.64 |       |
|                  |                 | 1712.5 (131997) | 18.55         | 18.85 | 18.87 |       |
|                  | 1RB-Low (0)     | 1777.5 (132647) | 18.32         | 18.69 | 18.43 |       |
|                  |                 | 1745 (132322)   | 18.33         | 18.54 | 18.44 |       |
|                  |                 | 1712.5 (131997) | 18.24         | 18.47 | 18.68 |       |
|                  | 12RB-High (13)  | 1777.5 (132647) | 18.59         | 18.33 | 18.61 |       |
|                  |                 | 1745 (132322)   | 18.61         | 18.57 | 18.44 |       |
|                  |                 | 1712.5 (131997) | 18.60         | 18.69 | 18.71 |       |
|                  | 12RB-Middle (6) | 1777.5 (132647) | 18.71         | 18.61 | 18.54 |       |
|                  |                 | 1745 (132322)   | 18.71         | 18.50 | 18.64 |       |
|                  |                 | 1712.5 (131997) | 18.63         | 18.60 | 18.51 |       |
|                  | 12RB-Low (0)    | 1777.5 (132647) | 18.57         | 18.57 | 18.49 |       |
|                  |                 | 1745 (132322)   | 18.41         | 18.54 | 18.52 |       |
|                  |                 | 1712.5 (131997) | 18.62         | 18.57 | 18.41 |       |
|                  | 25RB (0)        | 1777.5 (132647) | 18.54         | 18.40 | 18.47 |       |
|                  |                 | 1745 (132322)   | 18.61         | 18.47 | 18.50 |       |
|                  |                 | 1712.5 (131997) | 18.44         | 18.42 | 18.42 |       |
|                  | 10MHz           | 1RB-High (49)   | 1775 (132622) | 18.34 | 18.57 | 18.31 |
|                  |                 |                 | 1745 (132322) | 18.47 | 18.34 | 18.55 |
|                  |                 |                 | 1715 (132022) | 18.38 | 18.53 | 18.31 |
| 1RB-Middle (24)  |                 | 1775 (132622)   | 18.70         | 18.79 | 18.45 |       |
|                  |                 | 1745 (132322)   | 18.74         | 18.79 | 18.51 |       |
|                  |                 | 1715 (132022)   | 18.48         | 18.85 | 18.74 |       |
| 1RB-Low (0)      |                 | 1775 (132622)   | 18.36         | 18.69 | 18.33 |       |
|                  |                 | 1745 (132322)   | 18.34         | 18.61 | 18.59 |       |
|                  |                 | 1715 (132022)   | 18.49         | 18.41 | 18.52 |       |
| 25RB-High (25)   |                 | 1775 (132622)   | 18.37         | 18.29 | 18.46 |       |
|                  |                 | 1745 (132322)   | 18.36         | 18.42 | 18.65 |       |
|                  |                 | 1715 (132022)   | 18.79         | 18.43 | 18.44 |       |
| 25RB-Middle (12) |                 | 1775 (132622)   | 18.65         | 18.62 | 18.48 |       |
|                  |                 | 1745 (132322)   | 18.63         | 18.51 | 18.52 |       |
|                  |                 | 1715 (132022)   | 18.51         | 18.51 | 18.38 |       |
| 25RB-Low (0)     | 1775 (132622)   | 18.60           | 18.50         | 18.40 |       |       |

|                  |                  |                 |               |       |       |       |
|------------------|------------------|-----------------|---------------|-------|-------|-------|
|                  | 50RB (0)         | 1745 (132322)   | 18.67         | 18.60 | 18.47 |       |
|                  |                  | 1715 (132022)   | 18.28         | 18.39 | 18.56 |       |
|                  |                  | 1775 (132622)   | 18.61         | 18.27 | 18.35 |       |
|                  |                  | 1745 (132322)   | 18.51         | 18.57 | 18.33 |       |
|                  |                  | 1715 (132022)   | 18.49         | 18.51 | 18.66 |       |
| 15MHz            | 1RB-High (74)    | 1772.5 (132597) | 18.25         | 18.48 | 18.49 |       |
|                  |                  | 1745 (132322)   | 18.47         | 18.52 | 18.51 |       |
|                  |                  | 1717.5 (132047) | 18.36         | 18.36 | 18.64 |       |
|                  | 1RB-Middle (37)  | 1772.5 (132597) | 18.55         | 18.64 | 18.68 |       |
|                  |                  | 1745 (132322)   | 18.52         | 18.84 | 18.84 |       |
|                  |                  | 1717.5 (132047) | 18.37         | 18.88 | 18.54 |       |
|                  | 1RB-Low (0)      | 1772.5 (132597) | 18.28         | 18.62 | 18.49 |       |
|                  |                  | 1745 (132322)   | 18.24         | 18.54 | 18.59 |       |
|                  |                  | 1717.5 (132047) | 18.26         | 18.64 | 18.44 |       |
|                  | 36RB-High (38)   | 1772.5 (132597) | 18.55         | 18.59 | 18.32 |       |
|                  |                  | 1745 (132322)   | 18.57         | 18.39 | 18.62 |       |
|                  |                  | 1717.5 (132047) | 18.58         | 18.70 | 18.76 |       |
|                  | 36RB-Middle (19) | 1772.5 (132597) | 18.43         | 18.42 | 18.57 |       |
|                  |                  | 1745 (132322)   | 18.90         | 18.60 | 18.67 |       |
|                  |                  | 1717.5 (132047) | 18.75         | 18.60 | 18.51 |       |
|                  | 36RB-Low (0)     | 1772.5 (132597) | 18.56         | 18.50 | 18.47 |       |
|                  |                  | 1745 (132322)   | 18.49         | 18.52 | 18.54 |       |
|                  |                  | 1717.5 (132047) | 18.57         | 18.37 | 18.47 |       |
|                  | 75RB (0)         | 1772.5 (132597) | 18.54         | 18.41 | 18.47 |       |
|                  |                  | 1745 (132322)   | 18.50         | 18.50 | 18.36 |       |
|                  |                  | 1717.5 (132047) | 18.59         | 18.34 | 18.50 |       |
|                  | 20MHz            | 1RB-High (99)   | 1770 (132572) | 18.37 | 18.50 | 18.48 |
|                  |                  |                 | 1745 (132322) | 18.39 | 18.52 | 18.60 |
|                  |                  |                 | 1720 (132072) | 18.38 | 18.51 | 18.49 |
|                  |                  | 1RB-Middle (50) | 1770 (132572) | 18.55 | 18.77 | 18.55 |
|                  |                  |                 | 1745 (132322) | 18.70 | 18.82 | 18.67 |
|                  |                  |                 | 1720 (132072) | 18.55 | 18.72 | 18.69 |
| 1RB-Low (0)      |                  | 1770 (132572)   | 18.38         | 18.52 | 18.41 |       |
|                  |                  | 1745 (132322)   | 18.39         | 18.50 | 18.47 |       |
|                  |                  | 1720 (132072)   | 18.40         | 18.55 | 18.58 |       |
| 50RB-High (50)   |                  | 1770 (132572)   | 18.48         | 18.45 | 18.44 |       |
|                  |                  | 1745 (132322)   | 18.52         | 18.50 | 18.51 |       |
|                  |                  | 1720 (132072)   | 18.63         | 18.60 | 18.58 |       |
| 50RB-Middle (25) |                  | 1770 (132572)   | 18.60         | 18.55 | 18.54 |       |
|                  |                  | 1745 (132322)   | 18.74         | 18.56 | 18.56 |       |
|                  |                  | 1720 (132072)   | 18.62         | 18.56 | 18.55 |       |



|  |              |               |       |       |       |
|--|--------------|---------------|-------|-------|-------|
|  | 50RB-Low (0) | 1770 (132572) | 18.52 | 18.49 | 18.48 |
|  |              | 1745 (132322) | 18.55 | 18.53 | 18.53 |
|  |              | 1720 (132072) | 18.45 | 18.43 | 18.46 |
|  | 100RB (0)    | 1770 (132572) | 18.49 | 18.42 | 18.41 |
|  |              | 1745 (132322) | 18.50 | 18.45 | 18.47 |
|  |              | 1720 (132072) | 18.51 | 18.47 | 18.48 |

**LTE Carrier Aggregation Conducted Power (Uplink)**
**CA\_7C ANT1**

| UL LTE CA Class | Normal Power  |            |            |       |              |               |            |       |              | conducted power (dBm) |
|-----------------|---------------|------------|------------|-------|--------------|---------------|------------|-------|--------------|-----------------------|
|                 | PCC           |            |            |       |              | SCC           |            |       |              |                       |
|                 | PCC Bandwidth | UL channel | DL channel | UL RB | UL RB OFFSET | SCC Bandwidth | DL channel | UL RB | UL RB OFFSET |                       |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 99           | 20M           | 3152       | 1     | 0            | 15.13                 |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 99           | 15M           | 3179       | 1     | 0            | 15.25                 |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 99           | 10M           | 3206       | 1     | 0            | 15.36                 |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 99           | 20M           | 3048       | 1     | 0            | 23.86                 |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 99           | 15M           | 3021       | 1     | 0            | 23.93                 |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 99           | 10M           | 2994       | 1     | 0            | 23.85                 |
| CA_7C           | 15M           | 21375      | 3375       | 1     | 74           | 15M           | 3225       | 1     | 0            | 15.36                 |
| CA_7C           | 15M           | 20825      | 2825       | 1     | 74           | 15M           | 2975       | 1     | 0            | 23.82                 |
| CA_7C           | 15M           | 20825      | 2825       | 1     | 74           | 10M           | 2945       | 1     | 0            | 23.88                 |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 0            | 20M           | 3152       | 1     | 99           | 24.07                 |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 0            | 15M           | 3179       | 1     | 74           | 24.09                 |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 0            | 10M           | 3206       | 1     | 49           | 24.08                 |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 0            | 20M           | 3048       | 1     | 99           | 14.98                 |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 0            | 15M           | 3021       | 1     | 74           | 15.11                 |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 0            | 10M           | 2994       | 1     | 49           | 15.13                 |
| CA_7C           | 15M           | 21375      | 3375       | 1     | 0            | 15M           | 3225       | 1     | 74           | 24.06                 |
| CA_7C           | 15M           | 20825      | 2825       | 1     | 0            | 15M           | 2975       | 1     | 74           | 15.15                 |
| CA_7C           | 15M           | 20825      | 2825       | 1     | 0            | 10M           | 2945       | 1     | 49           | 15.37                 |

**CA\_38C ANT1**

| UL LTE CA Class | Normal Power  |         |    |           |               |         |    |           |       | conducted power (dBm) |
|-----------------|---------------|---------|----|-----------|---------------|---------|----|-----------|-------|-----------------------|
|                 | PCC           |         |    |           | SCC           |         |    |           |       |                       |
|                 | PCC Bandwidth | channel | RB | RB OFFSET | SCC Bandwidth | channel | RB | RB OFFSET |       |                       |
| CA_38C          | 20M           | 38150   | 1  | 99        | 20M           | 37952   | 1  | 0         | 15.12 |                       |
| CA_38C          | 20M           | 37850   | 1  | 99        | 20M           | 38048   | 1  | 0         | 24.11 |                       |
| CA_38C          | 15M           | 38175   | 1  | 74        | 15M           | 38025   | 1  | 0         | 15.33 |                       |
| CA_38C          | 15M           | 37825   | 1  | 74        | 15M           | 37975   | 1  | 0         | 24.15 |                       |
| CA_38C          | 20M           | 38150   | 1  | 0         | 20M           | 37952   | 1  | 99        | 24.23 |                       |
| CA_38C          | 20M           | 37850   | 1  | 0         | 20M           | 38048   | 1  | 99        | 14.99 |                       |
| CA_38C          | 15M           | 38175   | 1  | 0         | 15M           | 38025   | 1  | 74        | 24.14 |                       |
| CA_38C          | 15M           | 37825   | 1  | 0         | 15M           | 37975   | 1  | 74        | 15.22 |                       |

**CA\_7C ANT4**

| UL LTE CA Class | Normal Power  |            |            |       |              |               |            |       |              | conducted power (dBm) |
|-----------------|---------------|------------|------------|-------|--------------|---------------|------------|-------|--------------|-----------------------|
|                 | PCC           |            |            |       |              | SCC           |            |       |              |                       |
|                 | PCC Bandwidth | UL channel | DL channel | UL RB | UL RB OFFSET | SCC Bandwidth | DL channel | UL RB | UL RB OFFSET |                       |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 99           | 20M           | 3152       | 1     | 0            | 15.17                 |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 99           | 15M           | 3179       | 1     | 0            | 15.24                 |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 99           | 10M           | 3206       | 1     | 0            | 15.32                 |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 99           | 20M           | 3048       | 1     | 0            | 24.05                 |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 99           | 15M           | 3021       | 1     | 0            | 24.09                 |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 99           | 10M           | 2994       | 1     | 0            | 24.15                 |
| CA_7C           | 15M           | 21375      | 3375       | 1     | 74           | 15M           | 3225       | 1     | 0            | 15.35                 |
| CA_7C           | 15M           | 20825      | 2825       | 1     | 74           | 15M           | 2975       | 1     | 0            | 24.01                 |
| CA_7C           | 15M           | 20825      | 2825       | 1     | 74           | 10M           | 2945       | 1     | 0            | 24.05                 |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 0            | 20M           | 3152       | 1     | 99           | 24.05                 |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 0            | 15M           | 3179       | 1     | 74           | 24.07                 |
| CA_7C           | 20M           | 21350      | 3350       | 1     | 0            | 10M           | 3206       | 1     | 49           | 24.03                 |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 0            | 20M           | 3048       | 1     | 99           | 15.15                 |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 0            | 15M           | 3021       | 1     | 74           | 15.24                 |
| CA_7C           | 20M           | 20850      | 2850       | 1     | 0            | 10M           | 2994       | 1     | 49           | 15.38                 |
| CA_7C           | 15M           | 21375      | 3375       | 1     | 0            | 15M           | 3225       | 1     | 74           | 15.41                 |
| CA_7C           | 15M           | 20825      | 2825       | 1     | 0            | 15M           | 2975       | 1     | 74           | 15.66                 |
| CA_7C           | 15M           | 20825      | 2825       | 1     | 0            | 10M           | 2945       | 1     | 49           | 15.73                 |

**CA\_38C ANT4**

| UL LTE CA Class | Normal Power  |         |    |           |               |         |    |           |       | conducted power (dBm) |
|-----------------|---------------|---------|----|-----------|---------------|---------|----|-----------|-------|-----------------------|
|                 | PCC           |         |    |           | SCC           |         |    |           |       |                       |
|                 | PCC Bandwidth | channel | RB | RB OFFSET | SCC Bandwidth | channel | RB | RB OFFSET |       |                       |
| CA_38C          | 20M           | 38150   | 1  | 99        | 20M           | 37952   | 1  | 0         | 15.24 |                       |
| CA_38C          | 20M           | 37850   | 1  | 99        | 20M           | 38048   | 1  | 0         | 24.11 |                       |
| CA_38C          | 15M           | 38175   | 1  | 74        | 15M           | 38025   | 1  | 0         | 15.44 |                       |
| CA_38C          | 15M           | 37825   | 1  | 74        | 15M           | 37975   | 1  | 0         | 24.12 |                       |
| CA_38C          | 20M           | 38150   | 1  | 0         | 20M           | 37952   | 1  | 99        | 24.18 |                       |
| CA_38C          | 20M           | 37850   | 1  | 0         | 20M           | 38048   | 1  | 99        | 14.95 |                       |
| CA_38C          | 15M           | 38175   | 1  | 0         | 15M           | 38025   | 1  | 74        | 24.1  |                       |
| CA_38C          | 15M           | 37825   | 1  | 0         | 15M           | 37975   | 1  | 74        | 15.19 |                       |

### 11.4 Wi-Fi and BT Measurement result

The maximum output power of BT antenna is 11.3dBm.

The maximum tune up of BT antenna is 12.5dBm.

**Table 11.4: Summary of Receiver detection mechanism-WIFI antenna**

| Antenna      | Receiver on<br>(head scenario) | Receiver off<br>(body scenario) |
|--------------|--------------------------------|---------------------------------|
| WIFI Antenna | DSI1                           | DSI2                            |

The average conducted power for Wi-Fi 2.4G is as following-DSI1/2

| 802.11b           |       |         |
|-------------------|-------|---------|
| Channel\data rate | 1Mbps | Tune up |
| 11(2462MHz)       | 14.28 | 15.50   |
| 6(2437(MHz)       | 14.63 | 15.50   |
| 2(2417MHz)        | 14.54 | 15.50   |
| 1(2412MHz)        | 13.47 | 14.50   |
| 802.11g           |       |         |
| Channel\data rate | 6Mbps | Tune up |
| 11(2462MHz)       | 14.07 | 15.50   |
| 10(2457MHz)       | 14.55 | 16.00   |
| 6(2437(MHz)       | 14.91 | 16.00   |
| 1(2412MHz)        | 14.71 | 16.00   |
| 802.11n-20MHz     |       |         |
| Channel\data rate | MCS0  | Tune up |
| 11(2462MHz)       | 13.09 | 15.00   |
| 6(2437(MHz)       | 13.33 | 15.00   |
| 1(2412MHz)        | 13.13 | 15.00   |

**The average conducted power for Wi-Fi 5G is as following-DSI1/2**

| 802.11a(dBm)      |       |         | 802.11n(dBm)-20MHz |       |         | 802.11ac(dBm)-20MHz |       |         |
|-------------------|-------|---------|--------------------|-------|---------|---------------------|-------|---------|
| Channel\data rate | 6Mbps | Tune up | Channel\data rate  | 6Mbps | Tune up | Channel\data rate   | 6Mbps | Tune up |
| 36(5180 MHz)      | 14.47 | 16.00   | 36(5180 MHz)       | 13.88 | 15.50   | 36(5180 MHz)        | 13.81 | 15.50   |
| 40(5200 MHz)      | 14.41 | 16.00   | 40(5200 MHz)       | 13.78 | 15.50   | 40(5200 MHz)        | 13.79 | 15.50   |
| 44(5220 MHz)      | 14.44 | 16.00   | 44(5220 MHz)       | 13.94 | 15.50   | 44(5220 MHz)        | 13.83 | 15.50   |
| 48(5240 MHz)      | 14.48 | 16.00   | 48(5240 MHz)       | 13.92 | 15.50   | 48(5240 MHz)        | 13.81 | 15.50   |
| 52(5260 MHz)      | 14.48 | 16.00   | 52(5260 MHz)       | 13.89 | 15.50   | 52(5260 MHz)        | 13.96 | 15.50   |
| 56(5280 MHz)      | 14.55 | 16.00   | 56(5280 MHz)       | 13.88 | 15.50   | 56(5280 MHz)        | 13.96 | 15.50   |
| 60(5300 MHz)      | 14.51 | 16.00   | 60(5300 MHz)       | 13.97 | 15.50   | 60(5300 MHz)        | 13.96 | 15.50   |
| 64(5320 MHz)      | 14.54 | 16.00   | 64(5320 MHz)       | 13.89 | 15.50   | 64(5320 MHz)        | 13.95 | 15.50   |
| 100(5500 MHz)     | 14.53 | 16.00   | 100(5500 MHz)      | 13.97 | 15.50   | 100(5500 MHz)       | 13.93 | 15.50   |
| 104(5520 MHz)     | 14.47 | 16.00   | 104(5520 MHz)      | 13.86 | 15.50   | 104(5520 MHz)       | 13.94 | 15.50   |
| 108(5540 MHz)     | 14.53 | 16.00   | 108(5540 MHz)      | 13.93 | 15.50   | 108(5540 MHz)       | 13.97 | 15.50   |
| 112(5560 MHz)     | 14.58 | 16.00   | 112(5560 MHz)      | 13.88 | 15.50   | 112(5560 MHz)       | 13.93 | 15.50   |
| 116(5580 MHz)     | 14.57 | 16.00   | 116(5580 MHz)      | 14.01 | 15.50   | 116(5580 MHz)       | 13.99 | 15.50   |
| 120(5600 MHz)     | 14.63 | 16.00   | 120(5600 MHz)      | 14.01 | 15.50   | 120(5600 MHz)       | 13.99 | 15.50   |
| 124(5620 MHz)     | 14.67 | 16.00   | 124(5620 MHz)      | 14.04 | 15.50   | 124(5620 MHz)       | 14.03 | 15.50   |
| 128(5640 MHz)     | 14.67 | 16.00   | 128(5640 MHz)      | 14.01 | 15.50   | 128(5640 MHz)       | 14.03 | 15.50   |
| 132(5660 MHz)     | 14.78 | 16.00   | 132(5660 MHz)      | 14.09 | 15.50   | 132(5660 MHz)       | 14.12 | 15.50   |
| 136(5680 MHz)     | 14.74 | 16.00   | 136(5680 MHz)      | 14.04 | 15.50   | 136(5680 MHz)       | 14.09 | 15.50   |
| 140(5700 MHz)     | 14.68 | 16.00   | 140(5700 MHz)      | 14.03 | 15.50   | 140(5700 MHz)       | 13.53 | 15.00   |
| 149(5745 MHz)     | 14.83 | 16.00   | 149(5745 MHz)      | 14.01 | 15.50   | 149(5745 MHz)       | 14.02 | 15.50   |
| 153(5765 MHz)     | 14.76 | 16.00   | 153(5765 MHz)      | 13.98 | 15.50   | 153(5765 MHz)       | 13.98 | 15.50   |
| 157(5785 MHz)     | 14.66 | 16.00   | 157(5785 MHz)      | 13.93 | 15.50   | 157(5785 MHz)       | 13.96 | 15.50   |
| 161(5805 MHz)     | 14.58 | 16.00   | 161(5805 MHz)      | 14.02 | 15.50   | 161(5805 MHz)       | 13.98 | 15.50   |
| 165(5825 MHz)     | 14.54 | 16.00   | 165(5825 MHz)      | 13.97 | 15.50   | 165(5825 MHz)       | 13.93 | 15.50   |



| 802.11n(dBm)-40MHz |       |         |
|--------------------|-------|---------|
| Channel\data rate  | MCS0  | Tune up |
| 38(5190 MHz)       | 13.87 | 15.50   |
| 46(5230 MHz)       | 13.85 | 15.50   |
| 54(5270 MHz)       | 13.92 | 15.50   |
| 62(5310 MHz)       | 13.91 | 15.50   |
| 102(5510 MHz)      | 13.37 | 15.00   |
| 110(5550 MHz)      | 14.53 | 15.50   |
| 118(5590 MHz)      | 14.08 | 15.50   |
| 126(5630 MHz)      | 14.08 | 15.50   |
| 134(5670 MHz)      | 14.07 | 15.50   |
| 151(5755 MHz)      | 13.98 | 15.50   |
| 159(5795 MHz)      | 14.02 | 15.50   |

| 802.11ac(dBm)-40MHz |       |         |
|---------------------|-------|---------|
| Channel\data rate   | MCS0  | Tune up |
| 38(5190 MHz)        | 13.33 | 15.00   |
| 46(5230 MHz)        | 13.31 | 15.00   |
| 54(5270 MHz)        | 13.33 | 15.00   |
| 62(5310 MHz)        | 13.38 | 15.00   |
| 102(5510 MHz)       | 13.39 | 15.00   |
| 110(5550 MHz)       | 13.42 | 15.00   |
| 118(5590 MHz)       | 13.44 | 15.00   |
| 126(5630 MHz)       | 13.48 | 15.00   |
| 134(5670 MHz)       | 13.48 | 15.00   |
| 151(5755 MHz)       | 13.47 | 15.00   |
| 159(5795 MHz)       | 13.51 | 15.00   |

| 802.11ac(dBm)-80MHz |       |         |
|---------------------|-------|---------|
| Channel\data rate   | MCS0  | Tune up |
| 42(5210 MHz)        | 12.06 | 14.00   |
| 58(5290 MHz)        | 11.98 | 14.00   |
| 106(5530 MHz)       | 12.05 | 14.00   |
| 122(5610 MHz)       | 12.18 | 14.00   |
| 155(5775 MHz)       | 12.15 | 14.00   |

## 12 Simultaneous TX SAR Considerations

### 12.1 Introduction

#### Simultaneous Transmission Possibilities

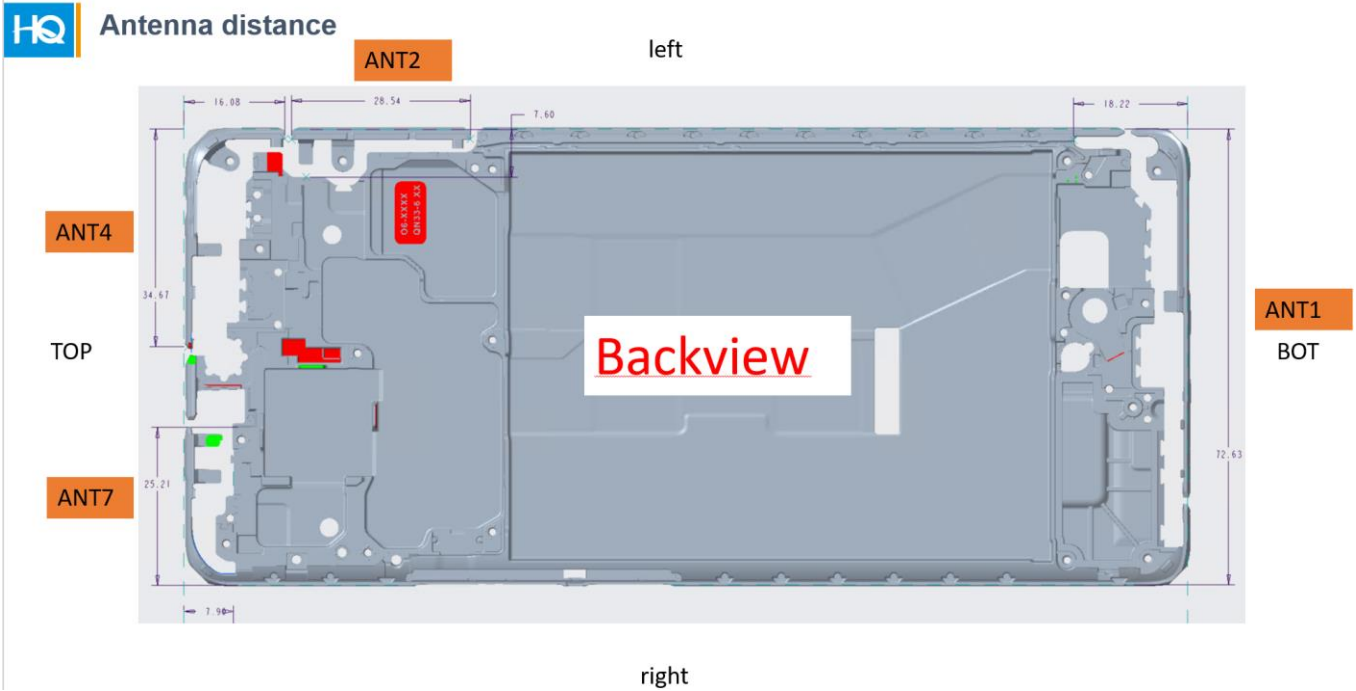
The Simultaneous Transmission Possibilities are as below:

| NO. | Antenna combines     | head | body |
|-----|----------------------|------|------|
| 1   | WWAN + BT            | Yes  | Yes  |
| 2   | WWAN + Wi-Fi 2.4G    | Yes  | Yes  |
| 3   | WWAN + Wi-Fi 5G      | Yes  | Yes  |
| 4   | WWAN + Wi-Fi 5G + BT | Yes  | Yes  |
| 5   | Wi-Fi 5G + BT        | Yes  | Yes  |

Note:

- 1) WWAN includes 2G/3G/4G, uplink CA.
- 2) There are two 2/3G TX antennas, they can't transmit simultaneously.
- 3) There are two 4G TX antennas, they can't transmit simultaneously.
- 4) Wi-Fi 2.4G can not transmit simultaneously with the antennas of Bluetooth..
- 5) Wi-Fi 5G can transmit simultaneously with the antennas of Bluetooth.
- 6) Wi-Fi 2.4G& Wi-Fi 5G can't work at same time.
- 7) The device does not support DTM function.
- 8) VoLTE or pre-installed VOIP applications are considered.
- 9) The device supports Vo-WI-FI function

## 12.2 Transmit Antenna Separation Distances



Picture 12.1 Antenna location

## 12.3 SAR Measurement Positions

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

| SAR measurement positions |       |      |           |            |          |             |
|---------------------------|-------|------|-----------|------------|----------|-------------|
| Mode                      | Front | Rear | Left edge | Right edge | Top edge | Bottom edge |
| WWAN-ANT1                 | Yes   | Yes  | Yes       | Yes        | No       | Yes         |
| WWAN-ANT4                 | Yes   | Yes  | Yes       | No         | Yes      | No          |
| WIFI-ANT7                 | Yes   | Yes  | No        | Yes        | Yes      | No          |

### 13 Evaluation of Simultaneous

**Table 13.1: The sum of SAR values for Main antenna + WIFI2.4G**

|                                   | Position                       | Main antenna | WIFI2.4G | Sum         |
|-----------------------------------|--------------------------------|--------------|----------|-------------|
| <b>Highest SAR value for Head</b> | Right head, Tilt (LTE B2-ANT4) | 1.03         | 0.45     | <b>1.48</b> |
| <b>Highest SAR value for Body</b> | Top 10mm (LTE B2-ANT4)         | 1.01         | 0.18     | <b>1.19</b> |
| <b>Highest SAR value for Limb</b> | Top 0mm (WCDMA B2-ANT4)        | 2.57         | 0.86     | <b>3.43</b> |

Note: VoLTE or pre-installed VOIP applications are considered.

**Table 13.2: The sum of SAR values for Main antenna+WIFI5G+BT**

|                                   | Position                       | Main antenna | WIFI5G | BT   | Sum         |
|-----------------------------------|--------------------------------|--------------|--------|------|-------------|
| <b>Highest SAR value for Head</b> | Right head, Tilt (LTE B2-ANT4) | 1.03         | 0.30   | 0.16 | <b>1.49</b> |
| <b>Highest SAR value for Body</b> | Rear 10mm (LTE B2-ANT4)        | 0.70         | 0.79   | 0.07 | <b>1.56</b> |
| <b>Highest SAR value for Limb</b> | Top 0mm (WCDMA B2-ANT4)        | 2.57         | 0.59   | 0.21 | <b>3.37</b> |

Note: VoLTE or pre-installed VOIP applications are considered.

#### Conclusion:

According to the above tables, the sum of reported SAR values is <math>1.6\text{W/kg}</math>. So the simultaneous transmission SAR with volume scans is not required.

## 14 SAR Test Result

### Note:

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

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

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

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

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

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

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

#### **KDB 648474 D04 Handset SAR:**

With headset attached, when the reported SAR for body-worn accessory, measured without a headset connected to the handset, is  $> 1.2$  W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a headset attached to the handset.

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

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

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

SAR test reduction is applied using the following criteria:

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

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

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

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

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

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

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

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

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

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

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

When the reported SAR for the initial test position is:

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

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

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

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

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

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

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

**Table 14.1: Duty Cycle**

| <b>Mode</b>         | <b>Duty Cycle</b> |
|---------------------|-------------------|
| GPRS/EGPRS 850/1900 | 1:4 or 1:2        |
| WCDMA&LTE FDD       | 1:1               |
| LTE TDD             | 1:1.58            |





| ANT | RF Exposure Conditions | Frequency Band | Channel Number | Frequency (MHz) | Mode        | Test Position | Distance | Figure No./Note | EUT Measured Power (dBm) | Tune up (dBm) | Scaling factor | Measured SAR 1g (W/kg) | Calculated SAR 1g (W/kg) | Measured SAR 10g (W/kg) | Calculated SAR 10g (W/kg) | Power Drift |
|-----|------------------------|----------------|----------------|-----------------|-------------|---------------|----------|-----------------|--------------------------|---------------|----------------|------------------------|--------------------------|-------------------------|---------------------------|-------------|
| 1   | Head                   | WCDMA 850      | 4183           | 836.6           | RMC         | Cheek Left    | 0mm      | \               | 24.78                    | 25.5          | 1.18           | 0.152                  | 0.18                     | 0.119                   | 0.14                      | -0.02       |
| 1   | Head                   | WCDMA 850      | 4183           | 836.6           | RMC         | Tilt Left     | 0mm      | \               | 24.78                    | 25.5          | 1.18           | 0.107                  | 0.13                     | 0.085                   | 0.10                      | -0.14       |
| 1   | Head                   | WCDMA 850      | 4183           | 836.6           | RMC         | Cheek Right   | 0mm      | 13              | 24.78                    | 25.5          | 1.18           | 0.21                   | 0.25                     | 0.159                   | 0.19                      | 0.01        |
| 1   | Head                   | WCDMA 850      | 4183           | 836.6           | RMC         | Tilt Right    | 0mm      | \               | 24.78                    | 25.5          | 1.18           | 0.101                  | 0.12                     | 0.06                    | 0.09                      | -0.02       |
| 1   | Head                   | WCDMA 850      | 4132           | 826.4           | RMC         | Cheek Right   | 0mm      | \               | 24.74                    | 25.5          | 1.19           | 0.201                  | 0.24                     | 0.151                   | 0.18                      | 0.09        |
| 1   | Head                   | WCDMA 850      | 4233           | 846.6           | RMC         | Cheek Right   | 0mm      | \               | 24.68                    | 25.5          | 1.21           | 0.196                  | 0.24                     | 0.148                   | 0.18                      | -0.14       |
| 1   | Body                   | WCDMA 850      | 4183           | 836.6           | RMC         | Front         | 15mm     | \               | 24.78                    | 25.5          | 1.18           | 0.15                   | 0.18                     | 0.115                   | 0.14                      | -0.09       |
| 1   | Body                   | WCDMA 850      | 4183           | 836.6           | RMC         | Rear          | 15mm     | 14              | 24.78                    | 25.5          | 1.18           | 0.201                  | 0.24                     | 0.148                   | 0.17                      | -0.01       |
| 1   | Body                   | WCDMA 850      | 4132           | 826.4           | RMC         | Rear          | 15mm     | \               | 24.74                    | 25.5          | 1.19           | 0.195                  | 0.23                     | 0.147                   | 0.18                      | -0.17       |
| 1   | Body                   | WCDMA 850      | 4233           | 846.6           | RMC         | Rear          | 15mm     | \               | 24.68                    | 25.5          | 1.21           | 0.184                  | 0.22                     | 0.137                   | 0.17                      | -0.12       |
| 1   | Body                   | WCDMA 850      | 4183           | 836.6           | RMC         | Front         | 10mm     | \               | 24.78                    | 25.5          | 1.18           | 0.239                  | 0.28                     | 0.145                   | 0.17                      | -0.06       |
| 1   | Body                   | WCDMA 850      | 4183           | 836.6           | RMC         | Rear          | 10mm     | \               | 24.78                    | 25.5          | 1.18           | 0.343                  | 0.40                     | 0.203                   | 0.24                      | -0.1        |
| 1   | Body                   | WCDMA 850      | 4183           | 836.6           | RMC         | Left          | 10mm     | \               | 24.78                    | 25.5          | 1.18           | 0.129                  | 0.15                     | 0.081                   | 0.10                      | -0.13       |
| 1   | Body                   | WCDMA 850      | 4183           | 836.6           | RMC         | Right         | 10mm     | \               | 24.78                    | 25.5          | 1.18           | 0.075                  | 0.09                     | 0.046                   | 0.05                      | -0.08       |
| 1   | Body                   | WCDMA 850      | 4183           | 836.6           | RMC         | Bottom        | 10mm     | \               | 24.78                    | 25.5          | 1.18           | 0.2                    | 0.24                     | 0.081                   | 0.10                      | 0.03        |
| 1   | Body                   | WCDMA 850      | 4132           | 826.4           | RMC         | Rear          | 10mm     | \               | 24.74                    | 25.5          | 1.19           | 0.34                   | 0.41                     | 0.205                   | 0.24                      | -0.17       |
| 1   | Body                   | WCDMA 850      | 4233           | 846.6           | RMC         | Rear          | 10mm     | 15              | 24.68                    | 25.5          | 1.21           | 0.349                  | 0.42                     | 0.212                   | 0.26                      | -0.08       |
| 1   | Head                   | LTE Band2      | 18900          | 1880            | 1RB-Middle  | Cheek Left    | 0mm      | \               | 24.56                    | 25.5          | 1.24           | 0.072                  | 0.09                     | 0.047                   | 0.06                      | 0.09        |
| 1   | Head                   | LTE Band2      | 18900          | 1880            | 1RB-Middle  | Tilt Left     | 0mm      | \               | 24.56                    | 25.5          | 1.24           | 0.076                  | 0.09                     | 0.045                   | 0.06                      | 0.13        |
| 1   | Head                   | LTE Band2      | 18900          | 1880            | 1RB-Middle  | Cheek Right   | 0mm      | 16              | 24.56                    | 25.5          | 1.24           | 0.083                  | 0.10                     | 0.052                   | 0.06                      | -0.08       |
| 1   | Head                   | LTE Band2      | 18900          | 1880            | 1RB-Middle  | Tilt Right    | 0mm      | \               | 24.56                    | 25.5          | 1.24           | <0.01                  | <0.01                    | <0.01                   | <0.01                     | \           |
| 1   | Head                   | LTE Band2      | 18900          | 1880            | 50RB-Middle | Cheek Left    | 0mm      | \               | 23.66                    | 24.5          | 1.21           | 0.062                  | 0.08                     | 0.041                   | 0.05                      | 0.01        |
| 1   | Head                   | LTE Band2      | 18900          | 1880            | 50RB-Middle | Tilt Left     | 0mm      | \               | 23.66                    | 24.5          | 1.21           | 0.066                  | 0.08                     | 0.04                    | 0.05                      | -0.15       |
| 1   | Head                   | LTE Band2      | 18900          | 1880            | 50RB-Middle | Cheek Right   | 0mm      | \               | 23.66                    | 24.5          | 1.21           | 0.071                  | 0.09                     | 0.045                   | 0.05                      | 0.04        |
| 1   | Head                   | LTE Band2      | 18900          | 1880            | 50RB-Middle | Tilt Right    | 0mm      | \               | 23.66                    | 24.5          | 1.21           | <0.01                  | <0.01                    | <0.01                   | <0.01                     | \           |
| 1   | Body                   | LTE Band2      | 18900          | 1880            | 1RB-Middle  | Front         | 15mm     | \               | 23.55                    | 24.5          | 1.24           | 0.478                  | 0.59                     | 0.257                   | 0.32                      | 0.09        |
| 1   | Body                   | LTE Band2      | 18900          | 1880            | 1RB-Middle  | Rear          | 15mm     | 17              | 23.55                    | 24.5          | 1.24           | 0.716                  | 0.89                     | 0.397                   | 0.49                      | 0.04        |
| 1   | Body                   | LTE Band2      | 18900          | 1880            | 50RB-Middle | Front         | 15mm     | \               | 23.57                    | 24.5          | 1.24           | 0.447                  | 0.55                     | 0.248                   | 0.31                      | -0.11       |
| 1   | Body                   | LTE Band2      | 18900          | 1880            | 50RB-Middle | Rear          | 15mm     | \               | 23.57                    | 24.5          | 1.24           | 0.713                  | 0.88                     | 0.392                   | 0.49                      | 0.07        |
| 1   | Body                   | LTE Band2      | 18700          | 1860            | 1RB-Middle  | Rear          | 15mm     | \               | 23.52                    | 24.5          | 1.25           | 0.634                  | 0.79                     | 0.335                   | 0.42                      | 0.06        |
| 1   | Body                   | LTE Band2      | 19100          | 1900            | 1RB-Middle  | Rear          | 15mm     | \               | 23.43                    | 24.5          | 1.28           | 0.655                  | 0.84                     | 0.348                   | 0.45                      | -0.07       |
| 1   | Body                   | LTE Band2      | 18900          | 1880            | 100RB       | Rear          | 15mm     | \               | 23.51                    | 24.5          | 1.26           | 0.695                  | 0.87                     | 0.381                   | 0.48                      | 0.07        |
| 1   | Body                   | LTE Band2      | 18900          | 1880            | 1RB-Middle  | Front         | 10mm     | \               | 17.54                    | 18.5          | 1.25           | 0.233                  | 0.29                     | 0.122                   | 0.15                      | 0.15        |
| 1   | Body                   | LTE Band2      | 18900          | 1880            | 1RB-Middle  | Rear          | 10mm     | \               | 17.54                    | 18.5          | 1.25           | 0.361                  | 0.45                     | 0.183                   | 0.23                      | -0.18       |
| 1   | Body                   | LTE Band2      | 18900          | 1880            | 1RB-Middle  | Left          | 10mm     | \               | 17.54                    | 18.5          | 1.25           | <0.01                  | <0.01                    | <0.01                   | <0.01                     | \           |
| 1   | Body                   | LTE Band2      | 18900          | 1880            | 1RB-Middle  | Right         | 10mm     | \               | 17.54                    | 18.5          | 1.25           | 0.03                   | 0.04                     | 0.009                   | 0.01                      | -0.03       |
| 1   | Body                   | LTE Band2      | 18900          | 1880            | 1RB-Middle  | Bottom        | 10mm     | \               | 17.54                    | 18.5          | 1.25           | 0.561                  | 0.70                     | 0.28                    | 0.35                      | -0.06       |
| 1   | Body                   | LTE Band2      | 18900          | 1880            | 50RB-Middle | Front         | 10mm     | \               | 17.58                    | 18.5          | 1.24           | 0.237                  | 0.29                     | 0.122                   | 0.15                      | 0.16        |
| 1   | Body                   | LTE Band2      | 18900          | 1880            | 50RB-Middle | Rear          | 10mm     | \               | 17.58                    | 18.5          | 1.24           | 0.347                  | 0.43                     | 0.179                   | 0.22                      | -0.1        |
| 1   | Body                   | LTE Band2      | 18900          | 1880            | 50RB-Middle | Left          | 10mm     | \               | 17.58                    | 18.5          | 1.24           | <0.01                  | <0.01                    | <0.01                   | <0.01                     | \           |
| 1   | Body                   | LTE Band2      | 18900          | 1880            | 50RB-Middle | Right         | 10mm     | \               | 17.58                    | 18.5          | 1.24           | 0.037                  | 0.05                     | 0.011                   | 0.01                      | -0.04       |
| 1   | Body                   | LTE Band2      | 18900          | 1880            | 50RB-Middle | Bottom        | 10mm     | 18              | 17.58                    | 18.5          | 1.24           | 0.582                  | 0.72                     | 0.296                   | 0.37                      | 0.01        |
| 1   | Head                   | LTE Band7      | 21100          | 2535            | 1RB-Middle  | Cheek Left    | 0mm      | 19              | 24.41                    | 25.5          | 1.29           | 0.389                  | 0.50                     | 0.208                   | 0.27                      | -0.01       |
| 1   | Head                   | LTE Band7      | 21100          | 2535            | 1RB-Middle  | Tilt Left     | 0mm      | \               | 24.41                    | 25.5          | 1.29           | 0.258                  | 0.33                     | 0.14                    | 0.18                      | -0.14       |
| 1   | Head                   | LTE Band7      | 21100          | 2535            | 1RB-Middle  | Cheek Right   | 0mm      | \               | 24.41                    | 25.5          | 1.29           | 0.185                  | 0.24                     | 0.107                   | 0.14                      | 0.06        |
| 1   | Head                   | LTE Band7      | 21100          | 2535            | 1RB-Middle  | Tilt Right    | 0mm      | \               | 24.41                    | 25.5          | 1.29           | <0.01                  | <0.01                    | <0.01                   | <0.01                     | \           |
| 1   | Head                   | LTE Band7      | 21100          | 2535            | 50RB-Middle | Cheek Left    | 0mm      | \               | 23.45                    | 24.5          | 1.27           | 0.309                  | 0.39                     | 0.167                   | 0.21                      | -0.11       |
| 1   | Head                   | LTE Band7      | 21100          | 2535            | 50RB-Middle | Tilt Left     | 0mm      | \               | 23.45                    | 24.5          | 1.27           | 0.198                  | 0.25                     | 0.107                   | 0.14                      | -0.04       |
| 1   | Head                   | LTE Band7      | 21100          | 2535            | 50RB-Middle | Cheek Right   | 0mm      | \               | 23.45                    | 24.5          | 1.27           | 0.149                  | 0.19                     | 0.086                   | 0.11                      | -0.17       |
| 1   | Head                   | LTE Band7      | 21100          | 2535            | 50RB-Middle | Tilt Right    | 0mm      | \               | 23.45                    | 24.5          | 1.27           | <0.01                  | <0.01                    | <0.01                   | <0.01                     | \           |
| 1   | Head                   | LTE Band7      | 21350          | 2560            | ULCA_7C     | Cheek Left    | 0mm      | \               | 24.09                    | 25.5          | 1.38           | 0.344                  | 0.48                     | 0.181                   | 0.25                      | 0.06        |
| 1   | Body                   | LTE Band7      | 21100          | 2535            | 1RB-Middle  | Front         | 15mm     | \               | 22.36                    | 23.5          | 1.30           | 0.161                  | 0.21                     | 0.09                    | 0.12                      | 0.08        |
| 1   | Body                   | LTE Band7      | 21100          | 2535            | 1RB-Middle  | Rear          | 15mm     | \               | 22.36                    | 23.5          | 1.30           | 0.226                  | 0.29                     | 0.126                   | 0.16                      | -0.07       |
| 1   | Body                   | LTE Band7      | 21100          | 2535            | 50RB-Middle | Front         | 15mm     | \               | 22.44                    | 23.5          | 1.28           | 0.162                  | 0.21                     | 0.09                    | 0.11                      | 0.12        |
| 1   | Body                   | LTE Band7      | 21100          | 2535            | 50RB-Middle | Rear          | 15mm     | 20              | 22.44                    | 23.5          | 1.28           | 0.231                  | 0.29                     | 0.128                   | 0.16                      | -0.06       |
| 1   | Body                   | LTE Band7      | 21100          | 2535            | 1RB-Middle  | Front         | 10mm     | \               | 20.39                    | 21.5          | 1.29           | 0.171                  | 0.22                     | 0.09                    | 0.12                      | -0.18       |
| 1   | Body                   | LTE Band7      | 21100          | 2535            | 1RB-Middle  | Rear          | 10mm     | \               | 20.39                    | 21.5          | 1.29           | 0.244                  | 0.32                     | 0.127                   | 0.16                      | -0.06       |
| 1   | Body                   | LTE Band7      | 21100          | 2535            | 1RB-Middle  | Left          | 10mm     | \               | 20.39                    | 21.5          | 1.29           | 0.167                  | 0.22                     | 0.088                   | 0.11                      | 0.11        |
| 1   | Body                   | LTE Band7      | 21100          | 2535            | 1RB-Middle  | Right         | 10mm     | \               | 20.39                    | 21.5          | 1.29           | 0.027                  | 0.03                     | 0.007                   | 0.01                      | 0.04        |
| 1   | Body                   | LTE Band7      | 21100          | 2535            | 1RB-Middle  | Bottom        | 10mm     | \               | 20.39                    | 21.5          | 1.29           | 0.333                  | 0.43                     | 0.153                   | 0.20                      | -0.16       |
| 1   | Body                   | LTE Band7      | 21100          | 2535            | 50RB-Middle | Front         | 10mm     | \               | 20.4                     | 21.5          | 1.29           | 0.166                  | 0.21                     | 0.088                   | 0.11                      | 0.04        |
| 1   | Body                   | LTE Band7      | 21100          | 2535            | 50RB-Middle | Rear          | 10mm     | \               | 20.4                     | 21.5          | 1.29           | 0.221                  | 0.28                     | 0.119                   | 0.15                      | 0.09        |
| 1   | Body                   | LTE Band7      | 21100          | 2535            | 50RB-Middle | Left          | 10mm     | \               | 20.4                     | 21.5          | 1.29           | 0.218                  | 0.28                     | 0.115                   | 0.15                      | 0.18        |
| 1   | Body                   | LTE Band7      | 21100          | 2535            | 50RB-Middle | Right         | 10mm     | \               | 20.4                     | 21.5          | 1.29           | 0.026                  | 0.03                     | 0.013                   | 0.02                      | 0.01        |
| 1   | Body                   | LTE Band7      | 21100          | 2535            | 50RB-Middle | Bottom        | 10mm     | 21              | 20.4                     | 21.5          | 1.29           | 0.364                  | 0.47                     | 0.166                   | 0.21                      | 0.03        |
| 1   | Body                   | LTE Band7      | 21350          | 2560            | ULCA_7C     | Bottom        | 10mm     | \               | 20.14                    | 21.5          | 1.37           | 0.332                  | 0.45                     | 0.143                   | 0.20                      | 0.06        |
| 1   | Head                   | LTE Band12     | 23095          | 707.5           | 1RB-Middle  | Cheek Left    | 0mm      | \               | 24.21                    | 25.5          | 1.35           | 0.096                  | 0.13                     | 0.077                   | 0.10                      | -0.02       |
| 1   | Head                   | LTE Band12     | 23095          | 707.5           | 1RB-Middle  | Tilt Left     | 0mm      | \               | 24.21                    | 25.5          | 1.35           | 0.062                  | 0.08                     | 0.048                   | 0.06                      | 0.08        |
| 1   | Head                   | LTE Band12     | 23095          | 707.5           | 1RB-Middle  | Cheek Right   | 0mm      | 22              | 24.21                    | 25.5          | 1.35           | 0.112                  | 0.15                     | 0.088                   | 0.12                      | 0.1         |
| 1   | Head                   | LTE Band12     | 23095          | 707.5           | 1RB-Middle  | Tilt Right    | 0mm      | \               | 24.21                    | 25.5          | 1.35           | <0.01                  | <0.01                    | <0.01                   | <0.01                     | \           |
| 1   | Head                   | LTE Band12     | 23095          | 707.5           | 25RB-Middle | Cheek Left    | 0mm      | \               | 23.25                    | 24.5          | 1.33           | 0.078                  | 0.10                     | 0.063                   | 0.08                      | -0.11       |
| 1   | Head                   | LTE Band12     | 23095          | 707.5           | 25RB-Middle | Tilt Left     | 0mm      | \               | 23.25                    | 24.5          | 1.33           | 0.045                  | 0.06                     | 0.032                   | 0.04                      | 0.11        |
| 1   | Head                   | LTE Band12     | 23095          | 707.5           | 25RB-Middle | Cheek Right   | 0mm      | \               | 23.25                    | 24.5          | 1.33           | 0.091                  | 0.12                     | 0.071                   | 0.09                      | -0.08       |
| 1   | Head                   | LTE Band12     | 23095          | 707.5           | 25RB-Middle | Tilt Right    | 0mm      | \               | 23.25                    | 24.5          | 1.33           | <0.01                  | <0.01                    | <0.01                   | <0.01                     | \           |
| 1   | Body                   | LTE Band12     | 23095          | 707.5           | 1RB-Middle  | Front         | 15mm     | \               | 24.21                    | 25.5          | 1.35           | 0.132                  | 0.18                     | 0.096                   | 0.13                      | -0.14       |
| 1   | Body                   | LTE Band12     | 23095          | 707.5           | 1RB-Middle  | Rear          | 15mm     | 23              | 24.21                    | 25.5          | 1.35           | 0.147                  | 0.20                     | 0.113                   | 0.15                      | 0.03        |
| 1   | Body                   | LTE Band12     | 23095          | 707.5           | 25RB-Middle | Front         | 15mm     | \               | 23.25                    | 24.5          | 1.33           | 0.066                  | 0.09                     | 0.048                   | 0.06                      | -0.03       |
| 1   | Body                   | LTE Band12     | 23095          | 707.5           | 25RB-Middle | Rear          | 15mm     | \               | 23.25                    | 24.5          | 1.33           | 0.111                  | 0.15                     | 0.08                    | 0.11                      | 0.07        |
| 1   | Body                   | LTE Band12     | 23095          | 707.5           | 1RB-Middle  | Front         | 10mm     | \               | 24.21                    | 25.5          | 1.35           | 0.143                  | 0.19                     | 0.101                   | 0.14                      | -0.17       |
| 1   | Body                   | LTE Band12     | 23095          | 707.5           | 1RB-Middle  | Rear          | 10mm     | 24              | 24.21                    | 25.5          | 1.35           | 0.216                  | 0.29                     | 0.155                   | 0.21                      | -0.03       |
| 1   | Body                   | LTE Band12     | 23095          | 707.5           | 1RB-Middle  | Left          | 10mm     | \               | 24.21                    | 25.5          | 1.35           | 0.098                  | 0.13                     | 0.066                   | 0.09                      | -0.12       |
|     |                        |                |                |                 |             |               |          |                 |                          |               |                |                        |                          |                         |                           |             |



| ANT | RF Exposure Conditions | Frequency Band | Channel Number | Frequency (MHz) | Mode        | Test Position | Distance | Figure No./Note | EUT Measured Power (dBm) | Tune up (dBm) | Scaling factor | Measured SAR 1g (W/kg) | Calculated SAR 1g (W/kg) | Measured SAR 10g (W/kg) | Calculated SAR 10g (W/kg) | Power Drift |
|-----|------------------------|----------------|----------------|-----------------|-------------|---------------|----------|-----------------|--------------------------|---------------|----------------|------------------------|--------------------------|-------------------------|---------------------------|-------------|
| 1   | Head                   | LTE Band13     | 23230          | 782             | 1RB-Low     | Cheek Left    | 0mm      | \               | 24.28                    | 25.5          | 1.32           | 0.124                  | 0.16                     | 0.093                   | 0.12                      | 0.05        |
| 1   | Head                   | LTE Band13     | 23230          | 782             | 1RB-Low     | Tilt Left     | 0mm      | \               | 24.28                    | 25.5          | 1.32           | 0.089                  | 0.12                     | 0.067                   | 0.09                      | -0.07       |
| 1   | Head                   | LTE Band13     | 23230          | 782             | 1RB-Low     | Cheek Right   | 0mm      | 25              | 24.28                    | 25.5          | 1.32           | 0.172                  | 0.23                     | 0.133                   | 0.18                      | -0.12       |
| 1   | Head                   | LTE Band13     | 23230          | 782             | 1RB-Low     | Tilt Right    | 0mm      | \               | 24.28                    | 25.5          | 1.32           | 0.082                  | 0.11                     | 0.06                    | 0.08                      | 0.03        |
| 1   | Head                   | LTE Band13     | 23230          | 782             | 25RB-Middle | Cheek Left    | 0mm      | \               | 23.31                    | 24.5          | 1.32           | 0.096                  | 0.13                     | 0.07                    | 0.09                      | 0.07        |
| 1   | Head                   | LTE Band13     | 23230          | 782             | 25RB-Middle | Tilt Left     | 0mm      | \               | 23.31                    | 24.5          | 1.32           | 0.071                  | 0.09                     | 0.052                   | 0.07                      | -0.1        |
| 1   | Head                   | LTE Band13     | 23230          | 782             | 25RB-Middle | Cheek Right   | 0mm      | \               | 23.31                    | 24.5          | 1.32           | 0.131                  | 0.17                     | 0.093                   | 0.12                      | 0.12        |
| 1   | Head                   | LTE Band13     | 23230          | 782             | 25RB-Middle | Tilt Right    | 0mm      | \               | 23.31                    | 24.5          | 1.32           | 0.065                  | 0.09                     | 0.048                   | 0.06                      | -0.11       |
| 1   | Body                   | LTE Band13     | 23230          | 782             | 1RB-Low     | Front         | 15mm     | \               | 24.28                    | 25.5          | 1.32           | 0.16                   | 0.21                     | 0.118                   | 0.16                      | 0.16        |
| 1   | Body                   | LTE Band13     | 23230          | 782             | 1RB-Low     | Rear          | 15mm     | 26              | 24.28                    | 25.5          | 1.32           | 0.183                  | 0.24                     | 0.14                    | 0.19                      | 0.04        |
| 1   | Body                   | LTE Band13     | 23230          | 782             | 25RB-Middle | Front         | 15mm     | \               | 23.31                    | 24.5          | 1.32           | 0.136                  | 0.18                     | 0.102                   | 0.13                      | -0.17       |
| 1   | Body                   | LTE Band13     | 23230          | 782             | 25RB-Middle | Rear          | 15mm     | \               | 23.31                    | 24.5          | 1.32           | 0.146                  | 0.19                     | 0.111                   | 0.15                      | -0.1        |
| 1   | Body                   | LTE Band13     | 23230          | 782             | 1RB-Low     | Front         | 10mm     | \               | 24.28                    | 25.5          | 1.32           | 0.172                  | 0.23                     | 0.129                   | 0.17                      | 0.06        |
| 1   | Body                   | LTE Band13     | 23230          | 782             | 1RB-Low     | Rear          | 10mm     | 27              | 24.28                    | 25.5          | 1.32           | 0.25                   | 0.33                     | 0.183                   | 0.24                      | 0.01        |
| 1   | Body                   | LTE Band13     | 23230          | 782             | 1RB-Low     | Left          | 10mm     | \               | 24.28                    | 25.5          | 1.32           | 0.142                  | 0.19                     | 0.099                   | 0.13                      | -0.12       |
| 1   | Body                   | LTE Band13     | 23230          | 782             | 1RB-Low     | Right         | 10mm     | \               | 24.28                    | 25.5          | 1.32           | 0.081                  | 0.11                     | 0.057                   | 0.08                      | 0.16        |
| 1   | Body                   | LTE Band13     | 23230          | 782             | 1RB-Low     | Bottom        | 10mm     | \               | 24.28                    | 25.5          | 1.32           | 0.135                  | 0.18                     | 0.065                   | 0.09                      | 0.02        |
| 1   | Body                   | LTE Band13     | 23230          | 782             | 25RB-Middle | Front         | 10mm     | \               | 23.31                    | 24.5          | 1.32           | 0.144                  | 0.19                     | 0.108                   | 0.14                      | 0.16        |
| 1   | Body                   | LTE Band13     | 23230          | 782             | 25RB-Middle | Rear          | 10mm     | \               | 23.31                    | 24.5          | 1.32           | 0.198                  | 0.26                     | 0.145                   | 0.19                      | -0.07       |
| 1   | Body                   | LTE Band13     | 23230          | 782             | 25RB-Middle | Left          | 10mm     | \               | 23.31                    | 24.5          | 1.32           | 0.079                  | 0.10                     | 0.057                   | 0.07                      | 0.13        |
| 1   | Body                   | LTE Band13     | 23230          | 782             | 25RB-Middle | Right         | 10mm     | \               | 23.31                    | 24.5          | 1.32           | 0.058                  | 0.08                     | 0.04                    | 0.05                      | 0.1         |
| 1   | Body                   | LTE Band13     | 23230          | 782             | 25RB-Middle | Bottom        | 10mm     | \               | 23.31                    | 24.5          | 1.32           | 0.092                  | 0.12                     | 0.05                    | 0.07                      | 0.01        |
| 1   | Head                   | LTE Band26     | 26865          | 831.5           | 1RB-Middle  | Cheek Left    | 0mm      | \               | 24.25                    | 25.5          | 1.33           | 0.132                  | 0.18                     | 0.102                   | 0.14                      | -0.18       |
| 1   | Head                   | LTE Band26     | 26865          | 831.5           | 1RB-Middle  | Tilt Left     | 0mm      | \               | 24.25                    | 25.5          | 1.33           | <0.01                  | <0.01                    | <0.01                   | <0.01                     | \           |
| 1   | Head                   | LTE Band26     | 26865          | 831.5           | 1RB-Middle  | Cheek Right   | 0mm      | 28              | 24.25                    | 25.5          | 1.33           | 0.201                  | 0.27                     | 0.153                   | 0.20                      | 0.09        |
| 1   | Head                   | LTE Band26     | 26865          | 831.5           | 1RB-Middle  | Tilt Right    | 0mm      | \               | 24.25                    | 25.5          | 1.33           | 0.095                  | 0.13                     | 0.074                   | 0.10                      | -0.1        |
| 1   | Head                   | LTE Band26     | 26865          | 831.5           | 36RB-Middle | Cheek Left    | 0mm      | \               | 23.39                    | 24.5          | 1.29           | 0.099                  | 0.13                     | 0.075                   | 0.10                      | 0.06        |
| 1   | Head                   | LTE Band26     | 26865          | 831.5           | 36RB-Middle | Tilt Left     | 0mm      | \               | 23.39                    | 24.5          | 1.29           | <0.01                  | <0.01                    | <0.01                   | <0.01                     | \           |
| 1   | Head                   | LTE Band26     | 26865          | 831.5           | 36RB-Middle | Cheek Right   | 0mm      | \               | 23.39                    | 24.5          | 1.29           | 0.156                  | 0.20                     | 0.119                   | 0.15                      | 0.03        |
| 1   | Head                   | LTE Band26     | 26865          | 831.5           | 36RB-Middle | Tilt Right    | 0mm      | \               | 23.39                    | 24.5          | 1.29           | 0.074                  | 0.10                     | 0.058                   | 0.07                      | 0.01        |
| 1   | Body                   | LTE Band26     | 26865          | 831.5           | 1RB-Middle  | Front         | 15mm     | \               | 24.25                    | 25.5          | 1.33           | 0.136                  | 0.18                     | 0.099                   | 0.13                      | 0.07        |
| 1   | Body                   | LTE Band26     | 26865          | 831.5           | 1RB-Middle  | Rear          | 15mm     | 29              | 24.25                    | 25.5          | 1.33           | 0.175                  | 0.23                     | 0.126                   | 0.17                      | 0.01        |
| 1   | Body                   | LTE Band26     | 26865          | 831.5           | 36RB-Middle | Front         | 15mm     | \               | 23.39                    | 24.5          | 1.29           | 0.117                  | 0.15                     | 0.083                   | 0.11                      | 0.09        |
| 1   | Body                   | LTE Band26     | 26865          | 831.5           | 36RB-Middle | Rear          | 15mm     | \               | 23.39                    | 24.5          | 1.29           | 0.141                  | 0.18                     | 0.102                   | 0.13                      | -0.12       |
| 1   | Body                   | LTE Band26     | 26865          | 831.5           | 1RB-Middle  | Front         | 10mm     | \               | 24.25                    | 25.5          | 1.33           | 0.234                  | 0.31                     | 0.139                   | 0.19                      | 0.02        |
| 1   | Body                   | LTE Band26     | 26865          | 831.5           | 1RB-Middle  | Rear          | 10mm     | 30              | 24.25                    | 25.5          | 1.33           | 0.317                  | 0.42                     | 0.192                   | 0.26                      | -0.02       |
| 1   | Body                   | LTE Band26     | 26865          | 831.5           | 1RB-Middle  | Left          | 10mm     | \               | 24.25                    | 25.5          | 1.33           | 0.083                  | 0.11                     | 0.049                   | 0.07                      | -0.03       |
| 1   | Body                   | LTE Band26     | 26865          | 831.5           | 1RB-Middle  | Right         | 10mm     | \               | 24.25                    | 25.5          | 1.33           | 0.064                  | 0.09                     | 0.043                   | 0.06                      | \           |
| 1   | Body                   | LTE Band26     | 26865          | 831.5           | 1RB-Middle  | Bottom        | 10mm     | \               | 24.25                    | 25.5          | 1.33           | 0.092                  | 0.12                     | 0.044                   | 0.06                      | 0.09        |
| 1   | Body                   | LTE Band26     | 26865          | 831.5           | 36RB-Middle | Front         | 10mm     | \               | 23.39                    | 24.5          | 1.29           | 0.171                  | 0.22                     | 0.105                   | 0.14                      | 0.16        |
| 1   | Body                   | LTE Band26     | 26865          | 831.5           | 36RB-Middle | Rear          | 10mm     | \               | 23.39                    | 24.5          | 1.29           | 0.254                  | 0.33                     | 0.151                   | 0.19                      | 0.08        |
| 1   | Body                   | LTE Band26     | 26865          | 831.5           | 36RB-Middle | Left          | 10mm     | \               | 23.39                    | 24.5          | 1.29           | 0.082                  | 0.11                     | 0.048                   | 0.06                      | -0.11       |
| 1   | Body                   | LTE Band26     | 26865          | 831.5           | 36RB-Middle | Right         | 10mm     | \               | 23.39                    | 24.5          | 1.29           | 0.061                  | 0.08                     | 0.037                   | 0.05                      | -0.14       |
| 1   | Body                   | LTE Band26     | 26865          | 831.5           | 36RB-Middle | Bottom        | 10mm     | \               | 23.39                    | 24.5          | 1.29           | 0.118                  | 0.15                     | 0.047                   | 0.06                      | -0.16       |
| 1   | Head                   | LTE Band41     | 40620          | 2593            | 1RB-Middle  | Cheek Left    | 0mm      | 31              | 24.4                     | 25.5          | 1.29           | 0.238                  | 0.31                     | 0.128                   | 0.16                      | -0.05       |
| 1   | Head                   | LTE Band41     | 40620          | 2593            | 1RB-Middle  | Tilt Left     | 0mm      | \               | 24.4                     | 25.5          | 1.29           | 0.103                  | 0.13                     | 0.056                   | 0.07                      | 0.13        |
| 1   | Head                   | LTE Band41     | 40620          | 2593            | 1RB-Middle  | Cheek Right   | 0mm      | \               | 24.4                     | 25.5          | 1.29           | 0.102                  | 0.13                     | 0.063                   | 0.08                      | -0.03       |
| 1   | Head                   | LTE Band41     | 40620          | 2593            | 1RB-Middle  | Tilt Right    | 0mm      | \               | 24.4                     | 25.5          | 1.29           | 0.068                  | 0.09                     | 0.039                   | 0.05                      | 0.12        |
| 1   | Head                   | LTE Band41     | 40620          | 2593            | 50RB-Middle | Cheek Left    | 0mm      | \               | 23.46                    | 24.5          | 1.27           | 0.182                  | 0.23                     | 0.098                   | 0.12                      | -0.14       |
| 1   | Head                   | LTE Band41     | 40620          | 2593            | 50RB-Middle | Tilt Left     | 0mm      | \               | 23.46                    | 24.5          | 1.27           | 0.097                  | 0.12                     | 0.052                   | 0.07                      | 0.06        |
| 1   | Head                   | LTE Band41     | 40620          | 2593            | 50RB-Middle | Cheek Right   | 0mm      | \               | 23.46                    | 24.5          | 1.27           | 0.075                  | 0.10                     | 0.046                   | 0.06                      | -0.14       |
| 1   | Head                   | LTE Band41     | 40620          | 2593            | 50RB-Middle | Tilt Right    | 0mm      | \               | 23.46                    | 24.5          | 1.27           | 0.055                  | 0.07                     | 0.029                   | 0.04                      | 0.17        |
| 1   | Head                   | LTE Band38     | 38150          | 2610            | ULCA_38C    | Cheek Left    | 0mm      | \               | 24.23                    | 25.5          | 1.34           | 0.215                  | 0.29                     | 0.106                   | 0.14                      | -0.07       |
| 1   | Body                   | LTE Band41     | 40620          | 2593            | 1RB-Middle  | Front         | 15mm     | \               | 23.62                    | 24.5          | 1.22           | 0.121                  | 0.15                     | 0.069                   | 0.08                      | 0.06        |
| 1   | Body                   | LTE Band41     | 40620          | 2593            | 1RB-Middle  | Rear          | 15mm     | 32              | 23.62                    | 24.5          | 1.22           | 0.169                  | 0.21                     | 0.094                   | 0.12                      | -0.16       |
| 1   | Body                   | LTE Band41     | 40620          | 2593            | 50RB-Middle | Front         | 15mm     | \               | 23.62                    | 24.5          | 1.22           | 0.081                  | 0.10                     | 0.05                    | 0.06                      | -0.12       |
| 1   | Body                   | LTE Band41     | 40620          | 2593            | 50RB-Middle | Rear          | 15mm     | \               | 23.62                    | 24.5          | 1.22           | 0.166                  | 0.20                     | 0.092                   | 0.11                      | 0.07        |
| 1   | Body                   | LTE Band41     | 40620          | 2593            | 1RB-Middle  | Front         | 10mm     | \               | 23.62                    | 24.5          | 1.22           | 0.209                  | 0.26                     | 0.119                   | 0.15                      | -0.02       |
| 1   | Body                   | LTE Band41     | 40620          | 2593            | 1RB-Middle  | Rear          | 10mm     | \               | 23.62                    | 24.5          | 1.22           | 0.332                  | 0.41                     | 0.182                   | 0.22                      | 0.01        |
| 1   | Body                   | LTE Band41     | 40620          | 2593            | 1RB-Middle  | Left          | 10mm     | \               | 23.62                    | 24.5          | 1.22           | 0.268                  | 0.33                     | 0.148                   | 0.18                      | 0.14        |
| 1   | Body                   | LTE Band41     | 40620          | 2593            | 1RB-Middle  | Right         | 10mm     | \               | 23.62                    | 24.5          | 1.22           | 0.035                  | 0.04                     | 0.01                    | 0.01                      | 0.16        |
| 1   | Body                   | LTE Band41     | 40620          | 2593            | 1RB-Middle  | Bottom        | 10mm     | 33              | 23.62                    | 24.5          | 1.22           | 0.382                  | 0.47                     | 0.173                   | 0.21                      | 0.02        |
| 1   | Body                   | LTE Band41     | 40620          | 2593            | 50RB-Middle | Front         | 10mm     | \               | 23.62                    | 24.5          | 1.22           | 0.229                  | 0.28                     | 0.129                   | 0.16                      | -0.14       |
| 1   | Body                   | LTE Band41     | 40620          | 2593            | 50RB-Middle | Rear          | 10mm     | \               | 23.62                    | 24.5          | 1.22           | 0.295                  | 0.36                     | 0.168                   | 0.21                      | 0.02        |
| 1   | Body                   | LTE Band41     | 40620          | 2593            | 50RB-Middle | Left          | 10mm     | \               | 23.62                    | 24.5          | 1.22           | 0.255                  | 0.31                     | 0.143                   | 0.18                      | -0.16       |
| 1   | Body                   | LTE Band41     | 40620          | 2593            | 50RB-Middle | Right         | 10mm     | \               | 23.62                    | 24.5          | 1.22           | 0.028                  | 0.03                     | 0.012                   | 0.01                      | -0.06       |
| 1   | Body                   | LTE Band41     | 40620          | 2593            | 50RB-Middle | Bottom        | 10mm     | \               | 23.62                    | 24.5          | 1.22           | 0.253                  | 0.31                     | 0.121                   | 0.15                      | -0.18       |
| 1   | Body                   | LTE Band38     | 38150          | 2610            | ULCA_38C    | Bottom        | 10mm     | \               | 23.47                    | 24.5          | 1.27           | 0.348                  | 0.44                     | 0.151                   | 0.19                      | 0.09        |
| 1   | Head                   | LTE Band66     | 132322         | 1745            | 1RB-Middle  | Cheek Left    | 0mm      | \               | 24.41                    | 25.5          | 1.29           | 0.07                   | 0.09                     | 0.045                   | 0.06                      | -0.02       |
| 1   | Head                   | LTE Band66     | 132322         | 1745            | 1RB-Middle  | Tilt Left     | 0mm      | \               | 24.41                    | 25.5          | 1.29           | 0.064                  | 0.08                     | 0.041                   | 0.05                      | 0.01        |
| 1   | Head                   | LTE Band66     | 132322         | 1745            | 1RB-Middle  | Cheek Right   | 0mm      | 34              | 24.41                    | 25.5          | 1.29           | 0.097                  | 0.12                     | 0.061                   | 0.08                      | 0.08        |
| 1   | Head                   | LTE Band66     | 132322         | 1745            | 1RB-Middle  | Tilt Right    | 0mm      | \               | 24.41                    | 25.5          | 1.29           | <0.01                  | <0.01                    | <0.01                   | <0.01                     | \           |
| 1   | Head                   | LTE Band66     | 132322         | 1745            | 50RB-Middle | Cheek Left    | 0mm      | \               | 23.46                    | 24.5          | 1.27           | 0.057                  | 0.07                     | 0.037                   | 0.05                      | -0.08       |
| 1   | Head                   | LTE Band66     | 132322         | 1745            | 50RB-Middle | Tilt Left     | 0mm      | \               | 23.46                    | 24.5          | 1.27           | 0.065                  | 0.08                     | 0.041                   | 0.05                      | 0.16        |
| 1   | Head                   | LTE Band66     | 132322         | 1745            | 50RB-Middle | Cheek Right   | 0mm      | \               | 23.46                    | 24.5          | 1.27           | 0.079                  | 0.10                     | 0.05                    | 0.06                      | 0.02        |
| 1   | Head                   | LTE Band66     | 132322         | 1745            | 50RB-Middle | Tilt Right    | 0mm      | \               | 23.46                    | 24.5          | 1.27           | <0.01                  | <0.01                    | <0.01                   | <0.01                     | \           |
| 1   | Body                   | LTE Band66     | 132322         | 1745            | 1RB-Middle  | Front         | 15mm     | \               | 22.59                    | 23.5          | 1.23           | 0.443                  | 0.55                     | 0.245                   | 0.30                      | 0.17        |
| 1   | Body                   | LTE Band66     | 132322         | 1745            | 1RB-Middle  | Rear          | 15mm     | 35              | 22.59                    | 23.5          | 1.23           | 0.643                  | 0.79                     | 0.364                   | 0.45                      | 0.09        |
| 1   | Body                   | LTE Band66     | 132322         | 1745            | 50RB-Middle | Front         | 15mm     | \               | 22.58                    | 23.5          | 1.24           | 0.43                   | 0.53                     | 0.243                   | 0.30                      | 0.01        |
| 1   | Body                   | LTE Band66     | 132322         | 1745            | 50RB-Middle | Rear          | 15mm     | \               | 22.58                    | 23.5          | 1.24           | 0.642                  | 0.79                     | 0.363                   | 0.45                      | 0.11        |
| 1   | Body                   | LTE Band66     | 132322         | 1745            | 1RB-Middle  | Front         | 10mm     | \               | 17.56                    | 18.5          | 1.24           | 0.255                  | 0.32                     |                         |                           |             |

| ANT | RF Exposure Conditions | Frequency Band | Channel Number | Frequency (MHz) | Mode     | Test Position | Distance | Figure No./Note | EUT Measured Power (dBm) | Tune up (dBm) | Scaling factor | Measured SAR 1g (W/kg) | Calculated SAR 1g (W/kg) | Measured SAR 10g (W/kg) | Calculated SAR 10g (W/kg) | Power Drift |
|-----|------------------------|----------------|----------------|-----------------|----------|---------------|----------|-----------------|--------------------------|---------------|----------------|------------------------|--------------------------|-------------------------|---------------------------|-------------|
| 4   | Head                   | GSM850         | 190            | 836.6           | GPRS(2)  | Cheek Left    | 0mm      | \               | 29.85                    | 31.5          | 1.46           | 0.459                  | 0.67                     | 0.285                   | 0.42                      | -0.12       |
| 4   | Head                   | GSM850         | 190            | 836.6           | GPRS(2)  | Tilt Left     | 0mm      | \               | 29.85                    | 31.5          | 1.46           | 0.465                  | 0.68                     | 0.26                    | 0.38                      | -0.15       |
| 4   | Head                   | GSM850         | 190            | 836.6           | GPRS(2)  | Cheek Right   | 0mm      | 37              | 29.85                    | 31.5          | 1.46           | 0.558                  | 0.82                     | 0.348                   | 0.51                      | 0.01        |
| 4   | Head                   | GSM850         | 190            | 836.6           | GPRS(2)  | Tilt Right    | 0mm      | \               | 29.85                    | 31.5          | 1.46           | 0.479                  | 0.70                     | 0.277                   | 0.41                      | 0.09        |
| 4   | Head                   | GSM850         | 128            | 824.2           | GPRS(2)  | Cheek Right   | 0mm      | \               | 29.88                    | 31.5          | 1.45           | 0.548                  | 0.80                     | 0.331                   | 0.48                      | -0.05       |
| 4   | Head                   | GSM850         | 251            | 848.8           | GPRS(2)  | Cheek Right   | 0mm      | \               | 29.81                    | 31.5          | 1.48           | 0.477                  | 0.70                     | 0.29                    | 0.43                      | -0.17       |
| 4   | Head                   | GSM850         | 190            | 836.6           | EGPRS(2) | Cheek Right   | 0mm      | \               | 29.87                    | 31.5          | 1.46           | 0.552                  | 0.80                     | 0.345                   | 0.50                      | 0.09        |
| 4   | Body                   | GSM850         | 190            | 836.6           | GPRS(2)  | Front         | 15mm     | \               | 29.85                    | 31.5          | 1.46           | 0.106                  | 0.15                     | 0.071                   | 0.10                      | -0.11       |
| 4   | Body                   | GSM850         | 190            | 836.6           | GPRS(2)  | Rear          | 15mm     | 38              | 29.85                    | 31.5          | 1.46           | 0.139                  | 0.20                     | 0.092                   | 0.13                      | -0.06       |
| 4   | Body                   | GSM850         | 128            | 824.2           | GPRS(2)  | Rear          | 15mm     | \               | 29.88                    | 31.5          | 1.45           | 0.109                  | 0.16                     | 0.071                   | 0.10                      | -0.18       |
| 4   | Body                   | GSM850         | 251            | 848.8           | GPRS(2)  | Rear          | 15mm     | \               | 29.81                    | 31.5          | 1.48           | 0.119                  | 0.18                     | 0.081                   | 0.12                      | -0.12       |
| 4   | Body                   | GSM850         | 190            | 836.6           | EGPRS(2) | Rear          | 15mm     | \               | 29.87                    | 31.5          | 1.46           | 0.124                  | 0.18                     | 0.084                   | 0.12                      | 0.17        |
| 4   | Body                   | GSM850         | 190            | 836.6           | GPRS(2)  | Front         | 10mm     | \               | 29.85                    | 31.5          | 1.46           | 0.179                  | 0.26                     | 0.116                   | 0.17                      | 0.13        |
| 0   | Body                   | GSM850         | 190            | 836.6           | GPRS(2)  | Rear          | 10mm     | 39              | 29.85                    | 31.5          | 1.46           | 0.216                  | 0.32                     | 0.136                   | 0.20                      | -0.05       |
| 4   | Body                   | GSM850         | 190            | 836.6           | GPRS(2)  | Left          | 10mm     | \               | 29.85                    | 31.5          | 1.46           | 0.061                  | 0.09                     | 0.04                    | 0.06                      | 0.11        |
| 4   | Body                   | GSM850         | 190            | 836.6           | GPRS(2)  | Top           | 10mm     | \               | 29.85                    | 31.5          | 1.46           | 0.183                  | 0.27                     | 0.091                   | 0.13                      | 0.14        |
| 4   | Body                   | GSM850         | 128            | 824.2           | GPRS(2)  | Rear          | 10mm     | \               | 29.88                    | 31.5          | 1.45           | 0.191                  | 0.28                     | 0.121                   | 0.18                      | -0.12       |
| 4   | Body                   | GSM850         | 251            | 848.8           | GPRS(2)  | Rear          | 10mm     | \               | 29.81                    | 31.5          | 1.48           | 0.211                  | 0.31                     | 0.133                   | 0.20                      | -0.11       |
| 4   | Body                   | GSM850         | 190            | 836.6           | EGPRS(2) | Rear          | 10mm     | \               | 29.87                    | 31.5          | 1.46           | 0.224                  | 0.33                     | 0.133                   | 0.19                      | -0.03       |
| 4   | Head                   | GSM1900        | 661            | 1880            | GPRS(2)  | Cheek Left    | 0mm      | \               | 22.95                    | 24.5          | 1.43           | 0.292                  | 0.42                     | 0.145                   | 0.21                      | 0.06        |
| 4   | Head                   | GSM1900        | 661            | 1880            | GPRS(2)  | Tilt Left     | 0mm      | \               | 22.95                    | 24.5          | 1.43           | 0.428                  | 0.61                     | 0.208                   | 0.30                      | -0.07       |
| 4   | Head                   | GSM1900        | 661            | 1880            | GPRS(2)  | Cheek Right   | 0mm      | \               | 22.95                    | 24.5          | 1.43           | 0.564                  | 0.81                     | 0.254                   | 0.36                      | 0.05        |
| 4   | Head                   | GSM1900        | 661            | 1880            | GPRS(2)  | Tilt Right    | 0mm      | \               | 22.95                    | 24.5          | 1.43           | 0.69                   | 0.99                     | 0.323                   | 0.46                      | 0.11        |
| 4   | Head                   | GSM1900        | 512            | 1850.2          | GPRS(2)  | Tilt Right    | 0mm      | \               | 22.72                    | 24.5          | 1.51           | 0.584                  | 0.88                     | 0.255                   | 0.38                      | -0.07       |
| 4   | Head                   | GSM1900        | 810            | 1909.8          | GPRS(2)  | Tilt Right    | 0mm      | 40              | 23.11                    | 24.5          | 1.38           | 0.743                  | 1.02                     | 0.326                   | 0.45                      | 0.1         |
| 4   | Head                   | GSM1900        | 810            | 1909.8          | EGPRS(2) | Tilt Right    | 0mm      | \               | 23.1                     | 24.5          | 1.38           | 0.721                  | 1.00                     | 0.312                   | 0.43                      | 0.07        |
| 4   | Body                   | GSM1900        | 661            | 1880            | GPRS(2)  | Front         | 15mm     | \               | 26.95                    | 28.5          | 1.43           | 0.327                  | 0.47                     | 0.174                   | 0.25                      | 0.06        |
| 4   | Body                   | GSM1900        | 661            | 1880            | GPRS(2)  | Rear          | 15mm     | \               | 26.95                    | 28.5          | 1.43           | 0.591                  | 0.84                     | 0.296                   | 0.42                      | -0.12       |
| 4   | Body                   | GSM1900        | 512            | 1850.2          | GPRS(2)  | Rear          | 15mm     | \               | 26.54                    | 28.5          | 1.57           | 0.45                   | 0.71                     | 0.231                   | 0.36                      | 0.07        |
| 4   | Body                   | GSM1900        | 810            | 1909.8          | GPRS(2)  | Rear          | 15mm     | 41              | 27.14                    | 28.5          | 1.37           | 0.681                  | 0.93                     | 0.331                   | 0.45                      | -0.04       |
| 4   | Body                   | GSM1900        | 810            | 1909.8          | EGPRS(2) | Rear          | 15mm     | \               | 27.15                    | 28.5          | 1.36           | 0.674                  | 0.92                     | 0.328                   | 0.45                      | -0.06       |
| 4   | Body                   | GSM1900        | 661            | 1880            | GPRS(4)  | Front         | 10mm     | \               | 21.6                     | 22.5          | 1.23           | 0.214                  | 0.26                     | 0.115                   | 0.14                      | 0.05        |
| 4   | Body                   | GSM1900        | 661            | 1880            | GPRS(4)  | Rear          | 10mm     | \               | 21.6                     | 22.5          | 1.23           | 0.483                  | 0.59                     | 0.216                   | 0.27                      | -0.07       |
| 4   | Body                   | GSM1900        | 661            | 1880            | GPRS(4)  | Left          | 10mm     | \               | 21.6                     | 22.5          | 1.23           | 0.083                  | 0.10                     | 0.048                   | 0.06                      | 0.12        |
| 4   | Body                   | GSM1900        | 661            | 1880            | GPRS(4)  | Top           | 10mm     | \               | 21.6                     | 22.5          | 1.23           | 0.522                  | 0.64                     | 0.239                   | 0.29                      | 0.03        |
| 4   | Body                   | GSM1900        | 512            | 1850.2          | GPRS(4)  | Top           | 10mm     | \               | 21.66                    | 22.5          | 1.21           | 0.3                    | 0.36                     | 0.144                   | 0.17                      | -0.12       |
| 4   | Body                   | GSM1900        | 810            | 1909.8          | GPRS(4)  | Top           | 10mm     | 42              | 21.72                    | 22.5          | 1.20           | 0.561                  | 0.67                     | 0.264                   | 0.32                      | 0.02        |
| 4   | Body                   | GSM1900        | 810            | 1909.8          | EGPRS(4) | Top           | 10mm     | \               | 21.73                    | 22.5          | 1.19           | 0.545                  | 0.65                     | 0.256                   | 0.31                      | 0.06        |
| 4   | Head                   | WCDMA 1900     | 9400           | 1880            | RMC      | Cheek Left    | 0mm      | \               | 16.68                    | 18            | 1.36           | 0.224                  | 0.30                     | 0.117                   | 0.16                      | 0.08        |
| 4   | Head                   | WCDMA 1900     | 9400           | 1880            | RMC      | Tilt Left     | 0mm      | \               | 16.68                    | 18            | 1.36           | 0.297                  | 0.40                     | 0.156                   | 0.21                      | -0.14       |
| 4   | Head                   | WCDMA 1900     | 9400           | 1880            | RMC      | Cheek Right   | 0mm      | \               | 16.68                    | 18            | 1.36           | 0.49                   | 0.66                     | 0.225                   | 0.30                      | 0.16        |
| 4   | Head                   | WCDMA 1900     | 9400           | 1880            | RMC      | Tilt Right    | 0mm      | 43              | 16.68                    | 18            | 1.36           | 0.597                  | 0.81                     | 0.275                   | 0.37                      | 0.01        |
| 4   | Head                   | WCDMA 1900     | 9262           | 1852.4          | RMC      | Tilt Right    | 0mm      | \               | 16.76                    | 18            | 1.33           | 0.489                  | 0.65                     | 0.23                    | 0.31                      | -0.16       |
| 4   | Head                   | WCDMA 1900     | 9538           | 1907.6          | RMC      | Tilt Right    | 0mm      | \               | 16.62                    | 18            | 1.37           | 0.579                  | 0.80                     | 0.264                   | 0.36                      | 0.07        |
| 4   | Body                   | WCDMA 1900     | 9400           | 1880            | RMC      | Front         | 15mm     | \               | 21.89                    | 23            | 1.29           | 0.212                  | 0.27                     | 0.122                   | 0.16                      | 0.05        |
| 4   | Body                   | WCDMA 1900     | 9400           | 1880            | RMC      | Rear          | 15mm     | \               | 21.89                    | 23            | 1.29           | 0.38                   | 0.49                     | 0.197                   | 0.25                      | -0.07       |
| 4   | Body                   | WCDMA 1900     | 9262           | 1852.4          | RMC      | Rear          | 15mm     | \               | 21.81                    | 23            | 1.32           | 0.332                  | 0.44                     | 0.173                   | 0.23                      | -0.1        |
| 4   | Body                   | WCDMA 1900     | 9538           | 1907.6          | RMC      | Rear          | 15mm     | 44              | 21.85                    | 23            | 1.30           | 0.405                  | 0.53                     | 0.212                   | 0.28                      | -0.02       |
| 4   | Body                   | WCDMA 1900     | 9400           | 1880            | RMC      | Front         | 10mm     | \               | 19.22                    | 20.5          | 1.34           | 0.233                  | 0.31                     | 0.123                   | 0.17                      | 0.16        |
| 4   | Body                   | WCDMA 1900     | 9400           | 1880            | RMC      | Rear          | 10mm     | \               | 19.22                    | 20.5          | 1.34           | 0.533                  | 0.72                     | 0.267                   | 0.36                      | -0.06       |
| 4   | Body                   | WCDMA 1900     | 9400           | 1880            | RMC      | Left          | 10mm     | \               | 19.22                    | 20.5          | 1.34           | 0.069                  | 0.09                     | 0.041                   | 0.06                      | -0.01       |
| 4   | Body                   | WCDMA 1900     | 9400           | 1880            | RMC      | Top           | 10mm     | \               | 19.22                    | 20.5          | 1.34           | 0.613                  | 0.82                     | 0.303                   | 0.41                      | -0.09       |
| 4   | Body                   | WCDMA 1900     | 9262           | 1852.4          | RMC      | Top           | 10mm     | \               | 19.15                    | 20.5          | 1.36           | 0.446                  | 0.61                     | 0.218                   | 0.30                      | 0.14        |
| 4   | Body                   | WCDMA 1900     | 9538           | 1907.6          | RMC      | Top           | 10mm     | 45              | 19.16                    | 20.5          | 1.36           | 0.623                  | 0.85                     | 0.301                   | 0.41                      | -0.04       |
| 4   | Head                   | WCDMA 1700     | 1412           | 1732.4          | RMC      | Cheek Left    | 0mm      | \               | 15.09                    | 16.5          | 1.38           | 0.211                  | 0.29                     | 0.114                   | 0.16                      | 0.11        |
| 4   | Head                   | WCDMA 1700     | 1412           | 1732.4          | RMC      | Tilt Left     | 0mm      | \               | 15.09                    | 16.5          | 1.38           | 0.296                  | 0.41                     | 0.153                   | 0.21                      | -0.14       |
| 4   | Head                   | WCDMA 1700     | 1412           | 1732.4          | RMC      | Cheek Right   | 0mm      | \               | 15.09                    | 16.5          | 1.38           | 0.421                  | 0.58                     | 0.194                   | 0.27                      | -0.01       |
| 4   | Head                   | WCDMA 1700     | 1412           | 1732.4          | RMC      | Tilt Right    | 0mm      | \               | 15.09                    | 16.5          | 1.38           | 0.501                  | 0.69                     | 0.228                   | 0.32                      | -0.14       |
| 4   | Head                   | WCDMA 1700     | 1312           | 1712.4          | RMC      | Tilt Right    | 0mm      | \               | 15.01                    | 16.5          | 1.41           | 0.418                  | 0.59                     | 0.193                   | 0.27                      | 0.08        |
| 4   | Head                   | WCDMA 1700     | 1513           | 1752.6          | RMC      | Tilt Right    | 0mm      | 46              | 15.04                    | 16.5          | 1.40           | 0.561                  | 0.79                     | 0.255                   | 0.36                      | 0.12        |
| 4   | Body                   | WCDMA 1700     | 1412           | 1732.4          | RMC      | Front         | 15mm     | \               | 20.26                    | 21.5          | 1.33           | 0.183                  | 0.24                     | 0.097                   | 0.13                      | 0.06        |
| 4   | Body                   | WCDMA 1700     | 1412           | 1732.4          | RMC      | Rear          | 15mm     | \               | 20.26                    | 21.5          | 1.33           | 0.292                  | 0.39                     | 0.154                   | 0.20                      | -0.07       |
| 4   | Body                   | WCDMA 1700     | 1312           | 1712.4          | RMC      | Rear          | 15mm     | \               | 20.24                    | 21.5          | 1.34           | 0.272                  | 0.36                     | 0.146                   | 0.20                      | 0.11        |
| 4   | Body                   | WCDMA 1700     | 1513           | 1752.6          | RMC      | Rear          | 15mm     | 47              | 20.22                    | 21.5          | 1.34           | 0.37                   | 0.50                     | 0.196                   | 0.26                      | 0.02        |
| 4   | Body                   | WCDMA 1700     | 1412           | 1732.4          | RMC      | Front         | 10mm     | \               | 18.18                    | 19.5          | 1.36           | 0.241                  | 0.33                     | 0.127                   | 0.17                      | 0.02        |
| 4   | Body                   | WCDMA 1700     | 1412           | 1732.4          | RMC      | Rear          | 10mm     | \               | 18.18                    | 19.5          | 1.36           | 0.494                  | 0.67                     | 0.25                    | 0.34                      | -0.1        |
| 4   | Body                   | WCDMA 1700     | 1412           | 1732.4          | RMC      | Left          | 10mm     | \               | 18.18                    | 19.5          | 1.36           | 0.073                  | 0.10                     | 0.042                   | 0.06                      | 0.02        |
| 4   | Body                   | WCDMA 1700     | 1412           | 1732.4          | RMC      | Top           | 10mm     | \               | 18.18                    | 19.5          | 1.36           | 0.539                  | 0.73                     | 0.265                   | 0.36                      | 0.05        |
| 4   | Body                   | WCDMA 1700     | 1312           | 1712.4          | RMC      | Top           | 10mm     | \               | 18.02                    | 19.5          | 1.41           | 0.435                  | 0.61                     | 0.223                   | 0.31                      | -0.1        |
| 4   | Body                   | WCDMA 1700     | 1513           | 1752.6          | RMC      | Top           | 10mm     | 48              | 18.13                    | 19.5          | 1.37           | 0.595                  | 0.82                     | 0.29                    | 0.40                      | 0.02        |



| ANT | RF Exposure Conditions | Frequency Band | Channel Number | Frequency (MHz) | Mode        | Test Position | Distance | Figure No./Note | EUT Measured Power (dBm) | Tune up (dBm) | Scaling factor | Measured SAR 1g (W/kg) | Calculated SAR 1g (W/kg) | Measured SAR 10g (W/kg) | Calculated SAR 10g (W/kg) | Power Drift |
|-----|------------------------|----------------|----------------|-----------------|-------------|---------------|----------|-----------------|--------------------------|---------------|----------------|------------------------|--------------------------|-------------------------|---------------------------|-------------|
| 4   | Head                   | WCDMA 850      | 4183           | 836.6           | RMC         | Cheek Left    | 0mm      | \               | 24.43                    | 25.5          | 1.28           | 0.463                  | 0.59                     | 0.297                   | 0.38                      | -0.01       |
| 4   | Head                   | WCDMA 850      | 4183           | 836.6           | RMC         | Tilt Left     | 0mm      | \               | 24.43                    | 25.5          | 1.28           | 0.445                  | 0.57                     | 0.259                   | 0.33                      | 0.05        |
| 4   | Head                   | WCDMA 850      | 4183           | 836.6           | RMC         | Cheek Right   | 0mm      | \               | 24.43                    | 25.5          | 1.28           | 0.551                  | 0.70                     | 0.344                   | 0.44                      | 0.16        |
| 4   | Head                   | WCDMA 850      | 4183           | 836.6           | RMC         | Tilt Right    | 0mm      | \               | 24.43                    | 25.5          | 1.28           | 0.476                  | 0.61                     | 0.29                    | 0.37                      | -0.14       |
| 4   | Head                   | WCDMA 850      | 4132           | 826.4           | RMC         | Cheek Right   | 0mm      | 49              | 24.41                    | 25.5          | 1.29           | 0.554                  | 0.71                     | 0.347                   | 0.45                      | -0.01       |
| 4   | Head                   | WCDMA 850      | 4233           | 846.6           | RMC         | Cheek Right   | 0mm      | \               | 24.36                    | 25.5          | 1.30           | 0.508                  | 0.66                     | 0.319                   | 0.41                      | 0.02        |
| 4   | Body                   | WCDMA 850      | 4183           | 836.6           | RMC         | Front         | 15mm     | \               | 24.43                    | 25.5          | 1.28           | 0.159                  | 0.20                     | 0.103                   | 0.13                      | -0.08       |
| 4   | Body                   | WCDMA 850      | 4183           | 836.6           | RMC         | Rear          | 15mm     | 50              | 24.43                    | 25.5          | 1.28           | 0.192                  | 0.25                     | 0.122                   | 0.16                      | 0.04        |
| 4   | Body                   | WCDMA 850      | 4132           | 826.4           | RMC         | Rear          | 15mm     | \               | 24.41                    | 25.5          | 1.29           | 0.18                   | 0.23                     | 0.115                   | 0.15                      | 0.13        |
| 4   | Body                   | WCDMA 850      | 4233           | 846.6           | RMC         | Rear          | 15mm     | \               | 24.36                    | 25.5          | 1.30           | 0.187                  | 0.24                     | 0.118                   | 0.15                      | -0.12       |
| 4   | Body                   | WCDMA 850      | 4183           | 836.6           | RMC         | Front         | 10mm     | \               | 24.43                    | 25.5          | 1.28           | 0.193                  | 0.25                     | 0.124                   | 0.16                      | 0.07        |
| 4   | Body                   | WCDMA 850      | 4183           | 836.6           | RMC         | Rear          | 10mm     | \               | 24.43                    | 25.5          | 1.28           | 0.235                  | 0.30                     | 0.153                   | 0.20                      | 0.09        |
| 4   | Body                   | WCDMA 850      | 4183           | 836.6           | RMC         | Left          | 10mm     | \               | 24.43                    | 25.5          | 1.28           | 0.062                  | 0.08                     | 0.04                    | 0.05                      | 0.07        |
| 4   | Body                   | WCDMA 850      | 4183           | 836.6           | RMC         | Top           | 10mm     | \               | 24.43                    | 25.5          | 1.28           | 0.183                  | 0.23                     | 0.102                   | 0.13                      | -0.03       |
| 4   | Body                   | WCDMA 850      | 4132           | 826.4           | RMC         | Rear          | 10mm     | \               | 24.41                    | 25.5          | 1.29           | 0.223                  | 0.29                     | 0.145                   | 0.19                      | -0.11       |
| 4   | Body                   | WCDMA 850      | 4233           | 846.6           | RMC         | Rear          | 10mm     | 51              | 24.36                    | 25.5          | 1.30           | 0.238                  | 0.31                     | 0.152                   | 0.20                      | 0.01        |
| 4   | Head                   | LTE Band2      | 18900          | 1880            | 1RB-Middle  | Cheek Left    | 0mm      | \               | 17.11                    | 18            | 1.23           | 0.172                  | 0.21                     | 0.099                   | 0.12                      | 0.01        |
| 4   | Head                   | LTE Band2      | 18900          | 1880            | 1RB-Middle  | Tilt Left     | 0mm      | \               | 17.11                    | 18            | 1.23           | 0.365                  | 0.45                     | 0.188                   | 0.23                      | 0.05        |
| 4   | Head                   | LTE Band2      | 18900          | 1880            | 1RB-Middle  | Cheek Right   | 0mm      | \               | 17.11                    | 18            | 1.23           | 0.687                  | 0.84                     | 0.321                   | 0.39                      | 0.13        |
| 4   | Head                   | LTE Band2      | 18900          | 1880            | 1RB-Middle  | Tilt Right    | 0mm      | 52              | 17.11                    | 18            | 1.23           | 0.841                  | 1.03                     | 0.385                   | 0.47                      | 0.08        |
| 4   | Head                   | LTE Band2      | 18900          | 1880            | 50RB-Middle | Cheek Left    | 0mm      | \               | 17.14                    | 18            | 1.22           | 0.234                  | 0.29                     | 0.122                   | 0.15                      | -0.06       |
| 4   | Head                   | LTE Band2      | 18900          | 1880            | 50RB-Middle | Tilt Left     | 0mm      | \               | 17.14                    | 18            | 1.22           | 0.356                  | 0.43                     | 0.179                   | 0.22                      | -0.11       |
| 4   | Head                   | LTE Band2      | 18900          | 1880            | 50RB-Middle | Cheek Right   | 0mm      | \               | 17.14                    | 18            | 1.22           | 0.683                  | 0.83                     | 0.313                   | 0.38                      | 0.05        |
| 4   | Head                   | LTE Band2      | 18900          | 1880            | 50RB-Middle | Tilt Right    | 0mm      | \               | 17.14                    | 18            | 1.22           | 0.827                  | 1.01                     | 0.383                   | 0.47                      | 0.12        |
| 4   | Head                   | LTE Band2      | 18700          | 1860            | 1RB-Middle  | Cheek Right   | 0mm      | \               | 17.1                     | 18            | 1.23           | 0.618                  | 0.76                     | 0.289                   | 0.36                      | 0.07        |
| 4   | Head                   | LTE Band2      | 19100          | 1900            | 1RB-Middle  | Cheek Right   | 0mm      | \               | 17.08                    | 18            | 1.24           | 0.666                  | 0.82                     | 0.303                   | 0.37                      | -0.05       |
| 4   | Head                   | LTE Band2      | 18700          | 1860            | 50RB-Middle | Cheek Right   | 0mm      | \               | 17.1                     | 18            | 1.23           | 0.637                  | 0.78                     | 0.296                   | 0.36                      | 0.04        |
| 4   | Head                   | LTE Band2      | 19100          | 1900            | 50RB-Middle | Cheek Right   | 0mm      | \               | 17.13                    | 18            | 1.22           | 0.62                   | 0.76                     | 0.281                   | 0.34                      | -0.15       |
| 4   | Head                   | LTE Band2      | 18900          | 1880            | 100RB       | Cheek Right   | 0mm      | \               | 17.12                    | 18            | 1.22           | 0.681                  | 0.83                     | 0.314                   | 0.38                      | 0.01        |
| 4   | Head                   | LTE Band2      | 18700          | 1860            | 1RB-Middle  | Tilt Right    | 0mm      | \               | 17.1                     | 18            | 1.23           | 0.734                  | 0.90                     | 0.345                   | 0.42                      | 0.05        |
| 4   | Head                   | LTE Band2      | 19100          | 1900            | 1RB-Middle  | Tilt Right    | 0mm      | \               | 17.08                    | 18            | 1.24           | 0.815                  | 1.01                     | 0.377                   | 0.47                      | -0.04       |
| 4   | Head                   | LTE Band2      | 18700          | 1860            | 50RB-Middle | Tilt Right    | 0mm      | \               | 17.1                     | 18            | 1.23           | 0.756                  | 0.93                     | 0.354                   | 0.44                      | -0.08       |
| 4   | Head                   | LTE Band2      | 19100          | 1900            | 50RB-Middle | Tilt Right    | 0mm      | \               | 17.13                    | 18            | 1.22           | 0.761                  | 0.93                     | 0.352                   | 0.43                      | -0.11       |
| 4   | Head                   | LTE Band2      | 18900          | 1880            | 100RB       | Tilt Right    | 0mm      | \               | 17.12                    | 18            | 1.22           | 0.833                  | 1.02                     | 0.377                   | 0.46                      | 0.07        |
| 4   | Head                   | LTE Band2      | 18900          | 1880            | 1RB-Middle  | Tilt Right    | 0mm      | SIM2            | 17.11                    | 18            | 1.23           | 0.833                  | 1.02                     | 0.382                   | 0.47                      | -0.09       |
| 4   | Head                   | LTE Band2      | 18900          | 1880            | 1RB-Middle  | Tilt Right    | 0mm      | 2nd Source      | 17.11                    | 18            | 1.23           | 0.816                  | 1.00                     | 0.377                   | 0.46                      | 0.02        |
| 4   | Head                   | LTE Band2      | 18900          | 1880            | 1RB-Middle  | Tilt Right    | 0mm      | 3rd Source      | 17.11                    | 18            | 1.23           | 0.823                  | 1.01                     | 0.379                   | 0.47                      | 0.11        |
| 4   | Head                   | LTE Band2      | 18900          | 1880            | 1RB-Middle  | Tilt Right    | 0mm      | 4th Source      | 17.11                    | 18            | 1.23           | 0.829                  | 1.02                     | 0.381                   | 0.47                      | 0.01        |
| 4   | Body                   | LTE Band2      | 18900          | 1880            | 1RB-Middle  | Front         | 15mm     | \               | 22.94                    | 24            | 1.28           | 0.37                   | 0.47                     | 0.207                   | 0.26                      | -0.02       |
| 4   | Body                   | LTE Band2      | 18900          | 1880            | 1RB-Middle  | Rear          | 15mm     | \               | 22.94                    | 24            | 1.28           | 0.767                  | 0.98                     | 0.414                   | 0.53                      | 0.16        |
| 4   | Body                   | LTE Band2      | 18900          | 1880            | 50RB-Middle | Front         | 15mm     | \               | 22.94                    | 24            | 1.28           | 0.364                  | 0.46                     | 0.204                   | 0.26                      | -0.09       |
| 4   | Body                   | LTE Band2      | 18900          | 1880            | 50RB-Middle | Rear          | 15mm     | 53              | 22.94                    | 24            | 1.28           | 0.774                  | 0.99                     | 0.419                   | 0.53                      | -0.08       |
| 4   | Body                   | LTE Band2      | 18700          | 1860            | 1RB-Middle  | Rear          | 15mm     | \               | 22.95                    | 24            | 1.27           | 0.64                   | 0.82                     | 0.35                    | 0.45                      | -0.12       |
| 4   | Body                   | LTE Band2      | 19100          | 1900            | 1RB-Middle  | Rear          | 15mm     | \               | 22.95                    | 24            | 1.27           | 0.758                  | 0.97                     | 0.408                   | 0.52                      | -0.09       |
| 4   | Body                   | LTE Band2      | 18700          | 1860            | 50RB-Middle | Rear          | 15mm     | \               | 22.95                    | 24            | 1.27           | 0.673                  | 0.86                     | 0.368                   | 0.47                      | 0.12        |
| 4   | Body                   | LTE Band2      | 19100          | 1900            | 50RB-Middle | Rear          | 15mm     | \               | 22.95                    | 24            | 1.27           | 0.713                  | 0.91                     | 0.384                   | 0.49                      | -0.1        |
| 4   | Body                   | LTE Band2      | 18900          | 1880            | 100RB       | Rear          | 15mm     | \               | 22.89                    | 24            | 1.29           | 0.751                  | 0.97                     | 0.403                   | 0.52                      | 0.02        |
| 4   | Body                   | LTE Band2      | 18900          | 1880            | 1RB-Middle  | Front         | 10mm     | \               | 19.44                    | 20.5          | 1.28           | 0.298                  | 0.38                     | 0.16                    | 0.20                      | 0.17        |
| 4   | Body                   | LTE Band2      | 18900          | 1880            | 1RB-Middle  | Rear          | 10mm     | \               | 19.44                    | 20.5          | 1.28           | 0.551                  | 0.70                     | 0.274                   | 0.35                      | 0.08        |
| 4   | Body                   | LTE Band2      | 18900          | 1880            | 1RB-Middle  | Left          | 10mm     | \               | 19.44                    | 20.5          | 1.28           | 0.09                   | 0.11                     | 0.053                   | 0.07                      | 0.11        |
| 4   | Body                   | LTE Band2      | 18900          | 1880            | 1RB-Middle  | Right         | 10mm     | \               | 19.44                    | 20.5          | 1.28           | <0.01                  | <0.01                    | <0.01                   | <0.01                     | \           |
| 4   | Body                   | LTE Band2      | 18900          | 1880            | 1RB-Middle  | Top           | 10mm     | \               | 19.44                    | 20.5          | 1.28           | 0.76                   | 0.97                     | 0.368                   | 0.47                      | 0.14        |
| 4   | Body                   | LTE Band2      | 18900          | 1880            | 50RB-Middle | Front         | 10mm     | \               | 19.51                    | 20.5          | 1.26           | 0.305                  | 0.38                     | 0.161                   | 0.20                      | 0.09        |
| 4   | Body                   | LTE Band2      | 18900          | 1880            | 50RB-Middle | Rear          | 10mm     | \               | 19.51                    | 20.5          | 1.26           | 0.525                  | 0.66                     | 0.274                   | 0.34                      | -0.03       |
| 4   | Body                   | LTE Band2      | 18900          | 1880            | 50RB-Middle | Left          | 10mm     | \               | 19.51                    | 20.5          | 1.26           | 0.09                   | 0.11                     | 0.05                    | 0.06                      | -0.03       |
| 4   | Body                   | LTE Band2      | 18900          | 1880            | 50RB-Middle | Right         | 10mm     | \               | 19.51                    | 20.5          | 1.26           | <0.01                  | <0.01                    | <0.01                   | <0.01                     | \           |
| 4   | Body                   | LTE Band2      | 18900          | 1880            | 50RB-Middle | Top           | 10mm     | \               | 19.51                    | 20.5          | 1.26           | 0.783                  | 0.98                     | 0.381                   | 0.48                      | -0.06       |
| 4   | Body                   | LTE Band2      | 18700          | 1860            | 1RB-Middle  | Top           | 10mm     | \               | 19.44                    | 20.5          | 1.28           | 0.609                  | 0.78                     | 0.302                   | 0.39                      | 0.08        |
| 4   | Body                   | LTE Band2      | 19100          | 1900            | 1RB-Middle  | Top           | 10mm     | 54              | 19.43                    | 20.5          | 1.28           | 0.788                  | 1.01                     | 0.39                    | 0.50                      | 0.02        |
| 4   | Body                   | LTE Band2      | 18700          | 1860            | 50RB-Middle | Top           | 10mm     | \               | 19.5                     | 20.5          | 1.26           | 0.652                  | 0.82                     | 0.323                   | 0.41                      | -0.05       |
| 4   | Body                   | LTE Band2      | 19100          | 1900            | 50RB-Middle | Top           | 10mm     | \               | 19.48                    | 20.5          | 1.26           | 0.729                  | 0.92                     | 0.359                   | 0.45                      | 0.09        |
| 4   | Body                   | LTE Band2      | 18900          | 1880            | 100RB       | Top           | 10mm     | \               | 19.36                    | 20.5          | 1.30           | 0.741                  | 0.96                     | 0.367                   | 0.48                      | 0.05        |
| 4   | Head                   | LTE Band7      | 21100          | 2535            | 1RB-Middle  | Cheek Left    | 0mm      | \               | 14.64                    | 16            | 1.37           | 0.312                  | 0.43                     | 0.144                   | 0.20                      | 0.06        |
| 4   | Head                   | LTE Band7      | 21100          | 2535            | 1RB-Middle  | Tilt Left     | 0mm      | \               | 14.64                    | 16            | 1.37           | 0.378                  | 0.52                     | 0.175                   | 0.24                      | -0.07       |
| 4   | Head                   | LTE Band7      | 21100          | 2535            | 1RB-Middle  | Cheek Right   | 0mm      | \               | 14.64                    | 16            | 1.37           | 0.423                  | 0.58                     | 0.175                   | 0.24                      | 0.02        |
| 4   | Head                   | LTE Band7      | 21100          | 2535            | 1RB-Middle  | Tilt Right    | 0mm      | \               | 14.64                    | 16            | 1.37           | 0.635                  | 0.87                     | 0.255                   | 0.35                      | -0.1        |
| 4   | Head                   | LTE Band7      | 21100          | 2535            | 50RB-Middle | Cheek Left    | 0mm      | \               | 14.67                    | 16            | 1.36           | 0.362                  | 0.49                     | 0.161                   | 0.22                      | 0.08        |
| 4   | Head                   | LTE Band7      | 21100          | 2535            | 50RB-Middle | Tilt Left     | 0mm      | \               | 14.67                    | 16            | 1.36           | 0.463                  | 0.63                     | 0.208                   | 0.28                      | -0.05       |
| 4   | Head                   | LTE Band7      | 21100          | 2535            | 50RB-Middle | Cheek Right   | 0mm      | \               | 14.67                    | 16            | 1.36           | 0.436                  | 0.59                     | 0.181                   | 0.25                      | -0.01       |
| 4   | Head                   | LTE Band7      | 21100          | 2535            | 50RB-Middle | Tilt Right    | 0mm      | \               | 14.67                    | 16            | 1.36           | 0.68                   | 0.92                     | 0.27                    | 0.37                      | 0.02        |
| 4   | Head                   | LTE Band7      | 20850          | 2510            | 1RB-Middle  | Tilt Right    | 0mm      | 55              | 14.61                    | 16            | 1.38           | 0.68                   | 0.94                     | 0.263                   | 0.36                      | 0.01        |
| 4   | Head                   | LTE Band7      | 21350          | 2560            | 1RB-Middle  | Tilt Right    | 0mm      | \               | 14.5                     | 16            | 1.41           | 0.531                  | 0.75                     | 0.212                   | 0.30                      | 0.07        |
| 4   | Head                   | LTE Band7      | 20850          | 2510            | 50RB-Middle | Tilt Right    | 0mm      | \               | 14.65                    | 16            | 1.36           | 0.67                   | 0.91                     | 0.265                   | 0.36                      | 0.05        |
| 4   | Head                   | LTE Band7      | 21350          | 2560            | 50RB-Middle | Tilt Right    | 0mm      | \               | 14.6                     | 16            | 1.38           | 0.625                  | 0.86                     | 0.249                   | 0.34                      | -0.07       |
| 4   | Head                   | LTE Band7      | 21100          | 2535            | 100RB       | Tilt Right    | 0mm      | \               | 14.61                    | 16            | 1.38           | 0.654                  | 0.90                     | 0.258                   | 0.36                      | 0.09        |
| 4   | Head                   | LTE Band7      | 20850          | 2510            | ULCA_7C     | Tilt Right    | 0mm      | \               | 14.34                    | 16            | 1.47           | 0.583                  | 0.85                     | 0.214                   | 0.31                      | 0.16        |
| 4   | Body                   | LTE Band7      | 21100          | 2535            | 1RB-Middle  | Front         | 15mm     | \               | 22.98                    | 24            | 1.26           | 0.32                   | 0.40                     | 0.166                   | 0.21                      | 0.09        |
| 4   | Body                   | LTE Band7      | 21100          | 2535            | 1RB-Middle  | Rear          | 15mm     | 56              | 22.98                    | 24            | 1.26           | 0.526                  | 0.67                     | 0.274                   | 0.35                      | -0.04       |
| 4   | Body                   | LTE Band7      | 21100          | 2535            | 50RB-Middle | Front         | 15mm     | \               | 23.02                    | 24            | 1.25           | 0.308                  | 0.39                     | 0.164                   | 0.21                      | -0.11       |
| 4   | Body                   | LTE Band7      | 21100          | 2535            | 50RB-Middle | Rear          | 15mm     | \               | 23.02                    | 24            | 1.25           | 0.519                  | 0.65                     | 0.27                    | 0.34                      | 0.07        |
| 4   | Body                   | LTE Band7      | 21100          | 2535            | 1RB-Middle  | Front         | 10mm     | \               | 19.64                    | 21            | 1.37           | 0.312                  | 0.43                     | 0.152                   | 0.21                      | 0.06        |
| 4   | Body                   | LTE Band7      | 21100          | 2535            | 1RB-Middle  | Rear          | 10mm     | \               | 19.64                    | 21            | 1.37           | 0.481                  | 0.66                     | 0.239                   | 0.33                      | 0.09        |
| 4   | Body                   | LTE Band7      |                |                 |             |               |          |                 |                          |               |                |                        |                          |                         |                           |             |

| ANT | RF Exposure Conditions | Frequency Band | Channel Number | Frequency (MHz) | Mode        | Test Position | Distance | Figure No./Note | E1F Measured Power (dBm) | Tune up (dBm) | Scaling factor | Measured SAR 1g (W/kg) | Calculated SAR 1g (W/kg) | Measured SAR 10g (W/kg) | Calculated SAR 10g (W/kg) | Power Drift |
|-----|------------------------|----------------|----------------|-----------------|-------------|---------------|----------|-----------------|--------------------------|---------------|----------------|------------------------|--------------------------|-------------------------|---------------------------|-------------|
| 4   | Head                   | LTE Band12     | 23095          | 707.5           | 1RB-Middle  | Cheek Left    | 0mm      | \               | 24.31                    | 25.5          | 1.32           | 0.34                   | 0.45                     | 0.215                   | 0.28                      | -0.1        |
| 4   | Head                   | LTE Band12     | 23095          | 707.5           | 1RB-Middle  | Tilt Left     | 0mm      | \               | 24.31                    | 25.5          | 1.32           | 0.359                  | 0.47                     | 0.205                   | 0.27                      | -0.07       |
| 4   | Head                   | LTE Band12     | 23095          | 707.5           | 1RB-Middle  | Cheek Right   | 0mm      | 58              | 24.31                    | 25.5          | 1.32           | 0.392                  | 0.52                     | 0.257                   | 0.34                      | 0.02        |
| 4   | Head                   | LTE Band12     | 23095          | 707.5           | 1RB-Middle  | Tilt Right    | 0mm      | \               | 24.31                    | 25.5          | 1.32           | 0.379                  | 0.50                     | 0.228                   | 0.30                      | 0.06        |
| 4   | Head                   | LTE Band12     | 23095          | 707.5           | 25RB-Middle | Cheek Left    | 0mm      | \               | 23.37                    | 24.5          | 1.30           | 0.266                  | 0.35                     | 0.168                   | 0.22                      | -0.16       |
| 4   | Head                   | LTE Band12     | 23095          | 707.5           | 25RB-Middle | Tilt Left     | 0mm      | \               | 23.37                    | 24.5          | 1.30           | 0.283                  | 0.37                     | 0.16                    | 0.21                      | 0.13        |
| 4   | Head                   | LTE Band12     | 23095          | 707.5           | 25RB-Middle | Cheek Right   | 0mm      | \               | 23.37                    | 24.5          | 1.30           | 0.302                  | 0.39                     | 0.199                   | 0.26                      | 0.09        |
| 4   | Head                   | LTE Band12     | 23095          | 707.5           | 25RB-Middle | Tilt Right    | 0mm      | \               | 23.37                    | 24.5          | 1.30           | 0.298                  | 0.39                     | 0.174                   | 0.23                      | -0.09       |
| 4   | Body                   | LTE Band12     | 23095          | 707.5           | 1RB-Middle  | Front         | 15mm     | \               | 24.31                    | 25.5          | 1.32           | 0.093                  | 0.12                     | 0.068                   | 0.09                      | 0.07        |
| 4   | Body                   | LTE Band12     | 23095          | 707.5           | 1RB-Middle  | Rear          | 15mm     | 59              | 24.31                    | 25.5          | 1.32           | 0.114                  | 0.15                     | 0.091                   | 0.12                      | -0.05       |
| 4   | Body                   | LTE Band12     | 23095          | 707.5           | 25RB-Middle | Front         | 15mm     | \               | 23.37                    | 24.5          | 1.30           | 0.076                  | 0.10                     | 0.055                   | 0.07                      | -0.07       |
| 4   | Body                   | LTE Band12     | 23095          | 707.5           | 25RB-Middle | Rear          | 15mm     | \               | 23.37                    | 24.5          | 1.30           | 0.089                  | 0.12                     | 0.065                   | 0.08                      | -0.07       |
| 4   | Body                   | LTE Band12     | 23095          | 707.5           | 1RB-Middle  | Front         | 10mm     | \               | 24.31                    | 25.5          | 1.32           | 0.11                   | 0.14                     | 0.075                   | 0.10                      | -0.02       |
| 4   | Body                   | LTE Band12     | 23095          | 707.5           | 1RB-Middle  | Rear          | 10mm     | 60              | 24.31                    | 25.5          | 1.32           | 0.153                  | 0.20                     | 0.105                   | 0.14                      | 0.01        |
| 4   | Body                   | LTE Band12     | 23095          | 707.5           | 1RB-Middle  | Left          | 10mm     | \               | 24.31                    | 25.5          | 1.32           | 0.111                  | 0.15                     | 0.074                   | 0.10                      | -0.16       |
| 4   | Body                   | LTE Band12     | 23095          | 707.5           | 1RB-Middle  | Top           | 10mm     | \               | 24.31                    | 25.5          | 1.32           | 0.079                  | 0.10                     | 0.046                   | 0.06                      | -0.04       |
| 4   | Body                   | LTE Band12     | 23095          | 707.5           | 25RB-Middle | Front         | 10mm     | \               | 23.37                    | 24.5          | 1.30           | 0.085                  | 0.11                     | 0.059                   | 0.08                      | -0.18       |
| 4   | Body                   | LTE Band12     | 23095          | 707.5           | 25RB-Middle | Rear          | 10mm     | \               | 23.37                    | 24.5          | 1.30           | 0.119                  | 0.15                     | 0.081                   | 0.11                      | 0.08        |
| 4   | Body                   | LTE Band12     | 23095          | 707.5           | 25RB-Middle | Left          | 10mm     | \               | 23.37                    | 24.5          | 1.30           | 0.096                  | 0.12                     | 0.064                   | 0.08                      | -0.03       |
| 4   | Body                   | LTE Band12     | 23095          | 707.5           | 25RB-Middle | Top           | 10mm     | \               | 23.37                    | 24.5          | 1.30           | 0.069                  | 0.09                     | 0.035                   | 0.05                      | 0.18        |
| 4   | Head                   | LTE Band13     | 23230          | 782             | 1RB-Low     | Cheek Left    | 0mm      | \               | 24.41                    | 25.5          | 1.29           | 0.15                   | 0.19                     | 0.099                   | 0.13                      | -0.15       |
| 4   | Head                   | LTE Band13     | 23230          | 782             | 1RB-Low     | Tilt Left     | 0mm      | \               | 24.41                    | 25.5          | 1.29           | 0.145                  | 0.19                     | 0.085                   | 0.11                      | -0.15       |
| 4   | Head                   | LTE Band13     | 23230          | 782             | 1RB-Low     | Cheek Right   | 0mm      | 61              | 24.41                    | 25.5          | 1.29           | 0.199                  | 0.26                     | 0.134                   | 0.17                      | 0.01        |
| 4   | Head                   | LTE Band13     | 23230          | 782             | 1RB-Low     | Tilt Right    | 0mm      | \               | 24.41                    | 25.5          | 1.29           | 0.174                  | 0.22                     | 0.104                   | 0.13                      | -0.18       |
| 4   | Head                   | LTE Band13     | 23230          | 782             | 25RB-Middle | Cheek Left    | 0mm      | \               | 23.44                    | 24.5          | 1.28           | 0.101                  | 0.13                     | 0.067                   | 0.09                      | 0.14        |
| 4   | Head                   | LTE Band13     | 23230          | 782             | 25RB-Middle | Tilt Left     | 0mm      | \               | 23.44                    | 24.5          | 1.28           | 0.104                  | 0.13                     | 0.061                   | 0.08                      | 0.14        |
| 4   | Head                   | LTE Band13     | 23230          | 782             | 25RB-Middle | Cheek Right   | 0mm      | \               | 23.44                    | 24.5          | 1.28           | 0.125                  | 0.16                     | 0.085                   | 0.11                      | 0.18        |
| 4   | Head                   | LTE Band13     | 23230          | 782             | 25RB-Middle | Tilt Right    | 0mm      | \               | 23.44                    | 24.5          | 1.28           | 0.119                  | 0.15                     | 0.071                   | 0.09                      | 0.06        |
| 4   | Body                   | LTE Band13     | 23230          | 782             | 1RB-Low     | Front         | 15mm     | \               | 24.41                    | 25.5          | 1.29           | 0.063                  | 0.08                     | 0.05                    | 0.06                      | 0.06        |
| 4   | Body                   | LTE Band13     | 23230          | 782             | 1RB-Low     | Rear          | 15mm     | 62              | 24.41                    | 25.5          | 1.29           | 0.082                  | 0.11                     | 0.066                   | 0.08                      | 0.04        |
| 4   | Body                   | LTE Band13     | 23230          | 782             | 25RB-Middle | Front         | 15mm     | \               | 23.44                    | 24.5          | 1.28           | <0.01                  | <0.01                    | <0.01                   | <0.01                     | \           |
| 4   | Body                   | LTE Band13     | 23230          | 782             | 25RB-Middle | Rear          | 15mm     | \               | 23.44                    | 24.5          | 1.28           | 0.055                  | 0.07                     | 0.044                   | 0.06                      | -0.14       |
| 4   | Body                   | LTE Band13     | 23230          | 782             | 1RB-Low     | Front         | 10mm     | \               | 24.41                    | 25.5          | 1.29           | 0.068                  | 0.09                     | 0.052                   | 0.07                      | 0.04        |
| 4   | Body                   | LTE Band13     | 23230          | 782             | 1RB-Low     | Rear          | 10mm     | 63              | 24.41                    | 25.5          | 1.29           | 0.095                  | 0.12                     | 0.073                   | 0.09                      | -0.07       |
| 4   | Body                   | LTE Band13     | 23230          | 782             | 1RB-Low     | Left          | 10mm     | \               | 24.41                    | 25.5          | 1.29           | 0.068                  | 0.09                     | 0.052                   | 0.07                      | 0.14        |
| 4   | Body                   | LTE Band13     | 23230          | 782             | 1RB-Low     | Top           | 10mm     | \               | 24.41                    | 25.5          | 1.29           | 0.055                  | 0.07                     | 0.037                   | 0.05                      | -0.02       |
| 4   | Body                   | LTE Band13     | 23230          | 782             | 25RB-Middle | Front         | 10mm     | \               | 23.44                    | 24.5          | 1.28           | 0.042                  | 0.05                     | 0.035                   | 0.04                      | 0.08        |
| 4   | Body                   | LTE Band13     | 23230          | 782             | 25RB-Middle | Rear          | 10mm     | \               | 23.44                    | 24.5          | 1.28           | 0.07                   | 0.09                     | 0.053                   | 0.07                      | 0.01        |
| 4   | Body                   | LTE Band13     | 23230          | 782             | 25RB-Middle | Left          | 10mm     | \               | 23.44                    | 24.5          | 1.28           | 0.048                  | 0.06                     | 0.036                   | 0.05                      | 0.15        |
| 4   | Body                   | LTE Band13     | 23230          | 782             | 25RB-Middle | Top           | 10mm     | \               | 23.44                    | 24.5          | 1.28           | 0.034                  | 0.04                     | 0.029                   | 0.04                      | -0.13       |
| 4   | Head                   | LTE Band26     | 26865          | 831.5           | 1RB-Middle  | Cheek Left    | 0mm      | \               | 24.29                    | 25.5          | 1.32           | 0.559                  | 0.74                     | 0.374                   | 0.49                      | 0.08        |
| 4   | Head                   | LTE Band26     | 26865          | 831.5           | 1RB-Middle  | Tilt Left     | 0mm      | \               | 24.29                    | 25.5          | 1.32           | 0.573                  | 0.76                     | 0.344                   | 0.45                      | 0.17        |
| 4   | Head                   | LTE Band26     | 26865          | 831.5           | 1RB-Middle  | Cheek Right   | 0mm      | \               | 24.29                    | 25.5          | 1.32           | 0.613                  | 0.81                     | 0.413                   | 0.55                      | -0.14       |
| 4   | Head                   | LTE Band26     | 26865          | 831.5           | 1RB-Middle  | Tilt Right    | 0mm      | \               | 24.29                    | 25.5          | 1.32           | 0.685                  | 0.91                     | 0.413                   | 0.55                      | 0.02        |
| 4   | Head                   | LTE Band26     | 26865          | 831.5           | 36RB-Middle | Cheek Left    | 0mm      | \               | 23.34                    | 24.5          | 1.31           | 0.42                   | 0.55                     | 0.282                   | 0.37                      | 0.11        |
| 4   | Head                   | LTE Band26     | 26865          | 831.5           | 36RB-Middle | Tilt Left     | 0mm      | \               | 23.34                    | 24.5          | 1.31           | 0.512                  | 0.67                     | 0.304                   | 0.40                      | -0.14       |
| 4   | Head                   | LTE Band26     | 26865          | 831.5           | 36RB-Middle | Cheek Right   | 0mm      | \               | 23.34                    | 24.5          | 1.31           | 0.533                  | 0.70                     | 0.358                   | 0.47                      | 0.01        |
| 4   | Head                   | LTE Band26     | 26865          | 831.5           | 36RB-Middle | Tilt Right    | 0mm      | \               | 23.34                    | 24.5          | 1.31           | 0.543                  | 0.71                     | 0.324                   | 0.42                      | 0.06        |
| 4   | Head                   | LTE Band26     | 26765          | 821.5           | 1RB-Low     | Cheek Right   | 0mm      | 64              | 24.24                    | 25.5          | 1.34           | 0.698                  | 0.93                     | 0.459                   | 0.61                      | 0.01        |
| 4   | Head                   | LTE Band26     | 26965          | 841.5           | 1RB-Middle  | Cheek Right   | 0mm      | \               | 24.23                    | 25.5          | 1.34           | 0.684                  | 0.92                     | 0.451                   | 0.60                      | 0.08        |
| 4   | Head                   | LTE Band26     | 26765          | 821.5           | 75RB        | Cheek Right   | 0mm      | \               | 23.26                    | 24.5          | 1.33           | 0.547                  | 0.73                     | 0.358                   | 0.48                      | -0.08       |
| 4   | Head                   | LTE Band26     | 26765          | 821.5           | 1RB-Middle  | Tilt Right    | 0mm      | \               | 23.31                    | 24.5          | 1.32           | 0.678                  | 0.89                     | 0.406                   | 0.53                      | -0.07       |
| 4   | Head                   | LTE Band26     | 26965          | 841.5           | 1RB-Middle  | Tilt Right    | 0mm      | \               | 23.25                    | 24.5          | 1.33           | 0.639                  | 0.85                     | 0.392                   | 0.52                      | -0.01       |
| 4   | Body                   | LTE Band26     | 26865          | 831.5           | 1RB-Middle  | Front         | 15mm     | \               | 24.29                    | 25.5          | 1.32           | 0.147                  | 0.19                     | 0.107                   | 0.14                      | 0.13        |
| 4   | Body                   | LTE Band26     | 26865          | 831.5           | 1RB-Middle  | Rear          | 15mm     | 65              | 24.29                    | 25.5          | 1.32           | 0.175                  | 0.23                     | 0.126                   | 0.17                      | 0.02        |
| 4   | Body                   | LTE Band26     | 26865          | 831.5           | 36RB-Middle | Front         | 15mm     | \               | 23.34                    | 24.5          | 1.31           | 0.117                  | 0.15                     | 0.085                   | 0.11                      | -0.16       |
| 4   | Body                   | LTE Band26     | 26865          | 831.5           | 36RB-Middle | Rear          | 15mm     | \               | 23.34                    | 24.5          | 1.31           | 0.134                  | 0.18                     | 0.096                   | 0.13                      | 0.04        |
| 4   | Body                   | LTE Band26     | 26865          | 831.5           | 1RB-Middle  | Front         | 10mm     | \               | 24.29                    | 25.5          | 1.32           | 0.229                  | 0.30                     | 0.153                   | 0.20                      | -0.09       |
| 4   | Body                   | LTE Band26     | 26865          | 831.5           | 1RB-Middle  | Rear          | 10mm     | 66              | 24.29                    | 25.5          | 1.32           | 0.268                  | 0.35                     | 0.184                   | 0.24                      | 0.01        |
| 4   | Body                   | LTE Band26     | 26865          | 831.5           | 1RB-Middle  | Left          | 10mm     | \               | 24.29                    | 25.5          | 1.32           | 0.067                  | 0.09                     | 0.045                   | 0.06                      | 0.06        |
| 4   | Body                   | LTE Band26     | 26865          | 831.5           | 1RB-Middle  | Top           | 10mm     | \               | 24.29                    | 25.5          | 1.32           | 0.181                  | 0.24                     | 0.105                   | 0.14                      | 0.14        |
| 4   | Body                   | LTE Band26     | 26865          | 831.5           | 36RB-Middle | Front         | 10mm     | \               | 23.34                    | 24.5          | 1.31           | 0.173                  | 0.23                     | 0.117                   | 0.15                      | 0.02        |
| 4   | Body                   | LTE Band26     | 26865          | 831.5           | 36RB-Middle | Rear          | 10mm     | \               | 23.34                    | 24.5          | 1.31           | 0.206                  | 0.27                     | 0.141                   | 0.18                      | 0.06        |
| 4   | Body                   | LTE Band26     | 26865          | 831.5           | 36RB-Middle | Left          | 10mm     | \               | 23.34                    | 24.5          | 1.31           | 0.053                  | 0.07                     | 0.036                   | 0.05                      | -0.03       |
| 4   | Body                   | LTE Band26     | 26865          | 831.5           | 36RB-Middle | Top           | 10mm     | \               | 23.34                    | 24.5          | 1.31           | 0.141                  | 0.18                     | 0.084                   | 0.11                      | -0.12       |





| ANT | RF Exposure Conditions | Frequency Band | Channel Number | Frequency (MHz) | Mode        | Test Position | Distance | Figure No./Note | EUT Measured Power (dBm) | Tune up (dBm) | Scaling factor | Measured SAR 1g (W/kg) | Calculated SAR 1g (W/kg) | Measured SAR 10g (W/kg) | Calculated SAR 10g (W/kg) | Power Drift |
|-----|------------------------|----------------|----------------|-----------------|-------------|---------------|----------|-----------------|--------------------------|---------------|----------------|------------------------|--------------------------|-------------------------|---------------------------|-------------|
| 4   | Head                   | LTE Band41     | 40620          | 2593            | 1RB-Middle  | Cheek Left    | 0mm      | \               | 18.81                    | 19.5          | 1.17           | 0.526                  | 0.62                     | 0.23                    | 0.27                      | 0.14        |
| 4   | Head                   | LTE Band41     | 40620          | 2593            | 1RB-Middle  | Tilt Left     | 0mm      | \               | 18.81                    | 19.5          | 1.17           | 0.678                  | 0.79                     | 0.281                   | 0.33                      | 0.15        |
| 4   | Head                   | LTE Band41     | 40620          | 2593            | 1RB-Middle  | Cheek Right   | 0mm      | \               | 18.81                    | 19.5          | 1.17           | 0.552                  | 0.65                     | 0.242                   | 0.28                      | -0.01       |
| 4   | Head                   | LTE Band41     | 40620          | 2593            | 1RB-Middle  | Tilt Right    | 0mm      | \               | 18.81                    | 19.5          | 1.17           | 0.792                  | 0.93                     | 0.311                   | 0.36                      | -0.04       |
| 4   | Head                   | LTE Band41     | 39750          | 2506            | 1RB-Middle  | Tilt Right    | 0mm      | \               | 18.47                    | 19.5          | 1.27           | 0.738                  | 0.94                     | 0.328                   | 0.42                      | -0.1        |
| 4   | Head                   | LTE Band41     | 41490          | 2680            | 1RB-Middle  | Tilt Right    | 0mm      | \               | 18.61                    | 19.5          | 1.23           | 0.562                  | 0.69                     | 0.241                   | 0.30                      | -0.09       |
| 4   | Head                   | LTE Band41     | 40620          | 2593            | 50RB-Middle | Cheek Left    | 0mm      | \               | 18.78                    | 19.5          | 1.18           | 0.481                  | 0.57                     | 0.211                   | 0.25                      | -0.04       |
| 4   | Head                   | LTE Band41     | 40620          | 2593            | 50RB-Middle | Tilt Left     | 0mm      | \               | 18.78                    | 19.5          | 1.18           | 0.671                  | 0.79                     | 0.274                   | 0.32                      | 0.12        |
| 4   | Head                   | LTE Band41     | 40620          | 2593            | 50RB-Middle | Cheek Right   | 0mm      | \               | 18.78                    | 19.5          | 1.18           | 0.537                  | 0.63                     | 0.24                    | 0.28                      | 0.16        |
| 4   | Head                   | LTE Band41     | 40620          | 2593            | 50RB-Middle | Tilt Right    | 0mm      | 67              | 18.78                    | 19.5          | 1.18           | 0.818                  | 0.97                     | 0.316                   | 0.37                      | 0.03        |
| 4   | Head                   | LTE Band41     | 39750          | 2506            | 50RB-Middle | Tilt Right    | 0mm      | \               | 18.45                    | 19.5          | 1.27           | 0.731                  | 0.93                     | 0.278                   | 0.35                      | 0.07        |
| 4   | Head                   | LTE Band41     | 41490          | 2680            | 50RB-Middle | Tilt Right    | 0mm      | \               | 18.67                    | 19.5          | 1.21           | 0.566                  | 0.67                     | 0.237                   | 0.29                      | 0.18        |
| 4   | Head                   | LTE Band38     | 40620          | 2593            | ULCA_38C    | Tilt Right    | 0mm      | \               | 18.54                    | 19.5          | 1.25           | 0.761                  | 0.95                     | 0.284                   | 0.35                      | 0.11        |
| 4   | Body                   | LTE Band41     | 40620          | 2593            | 1RB-Middle  | Front         | 15mm     | \               | 24.62                    | 25.5          | 1.22           | 0.263                  | 0.32                     | 0.147                   | 0.18                      | -0.14       |
| 4   | Body                   | LTE Band41     | 40620          | 2593            | 1RB-Middle  | Rear          | 15mm     | 68              | 24.62                    | 25.5          | 1.22           | 0.366                  | 0.45                     | 0.199                   | 0.24                      | 0.03        |
| 4   | Body                   | LTE Band41     | 40620          | 2593            | 50RB-Middle | Front         | 15mm     | \               | 23.57                    | 24.5          | 1.24           | 0.204                  | 0.25                     | 0.113                   | 0.14                      | 0.06        |
| 4   | Body                   | LTE Band41     | 40620          | 2593            | 50RB-Middle | Rear          | 15mm     | \               | 23.57                    | 24.5          | 1.24           | 0.274                  | 0.34                     | 0.151                   | 0.19                      | -0.16       |
| 4   | Body                   | LTE Band41     | 40620          | 2593            | 1RB-Middle  | Front         | 10mm     | \               | 23.79                    | 24.5          | 1.18           | 0.367                  | 0.43                     | 0.192                   | 0.23                      | 0.14        |
| 4   | Body                   | LTE Band41     | 40620          | 2593            | 1RB-Middle  | Rear          | 10mm     | \               | 23.79                    | 24.5          | 1.18           | 0.537                  | 0.63                     | 0.266                   | 0.31                      | 0.11        |
| 4   | Body                   | LTE Band41     | 40620          | 2593            | 1RB-Middle  | Left          | 10mm     | \               | 23.79                    | 24.5          | 1.18           | 0.072                  | 0.08                     | 0.043                   | 0.05                      | -0.04       |
| 4   | Body                   | LTE Band41     | 40620          | 2593            | 1RB-Middle  | Top           | 10mm     | 69              | 23.79                    | 24.5          | 1.18           | 0.822                  | 0.97                     | 0.39                    | 0.46                      | 0.01        |
| 4   | Body                   | LTE Band41     | 40620          | 2593            | 50RB-Middle | Front         | 10mm     | \               | 23.72                    | 24.5          | 1.20           | 0.357                  | 0.43                     | 0.188                   | 0.22                      | -0.04       |
| 4   | Body                   | LTE Band41     | 40620          | 2593            | 50RB-Middle | Rear          | 10mm     | \               | 23.72                    | 24.5          | 1.20           | 0.514                  | 0.62                     | 0.254                   | 0.30                      | 0.02        |
| 4   | Body                   | LTE Band41     | 40620          | 2593            | 50RB-Middle | Left          | 10mm     | \               | 23.72                    | 24.5          | 1.20           | 0.081                  | 0.10                     | 0.046                   | 0.06                      | 0.02        |
| 4   | Body                   | LTE Band41     | 40620          | 2593            | 50RB-Middle | Top           | 10mm     | \               | 23.72                    | 24.5          | 1.20           | 0.787                  | 0.94                     | 0.398                   | 0.48                      | -0.13       |
| 4   | Body                   | LTE Band41     | 39750          | 2506            | 1RB-Middle  | Top           | 10mm     | \               | 23.5                     | 24.5          | 1.26           | 0.699                  | 0.88                     | 0.333                   | 0.42                      | -0.06       |
| 4   | Body                   | LTE Band41     | 41490          | 2680            | 1RB-Middle  | Top           | 10mm     | \               | 23.77                    | 24.5          | 1.18           | 0.565                  | 0.67                     | 0.265                   | 0.31                      | 0.17        |
| 4   | Body                   | LTE Band41     | 39750          | 2506            | 50RB-Middle | Top           | 10mm     | \               | 23.45                    | 24.5          | 1.27           | 0.754                  | 0.96                     | 0.359                   | 0.46                      | 0.06        |
| 4   | Body                   | LTE Band41     | 41490          | 2680            | 50RB-Middle | Top           | 10mm     | \               | 23.69                    | 24.5          | 1.21           | 0.501                  | 0.60                     | 0.241                   | 0.29                      | 0.04        |
| 4   | Body                   | LTE Band41     | 40620          | 2593            | 100RB       | Top           | 10mm     | \               | 23.74                    | 24.5          | 1.19           | 0.783                  | 0.93                     | 0.395                   | 0.47                      | -0.04       |
| 4   | Body                   | LTE Band38     | 40620          | 2593            | ULCA_38C    | Top           | 10mm     | \               | 23.5                     | 24.5          | 1.26           | 0.746                  | 0.94                     | 0.348                   | 0.44                      | -0.08       |
| 4   | Head                   | LTE Band66     | 132322         | 1745            | 1RB-Middle  | Cheek Left    | 0mm      | \               | 15.68                    | 16.5          | 1.21           | 0.229                  | 0.28                     | 0.119                   | 0.14                      | 0.06        |
| 4   | Head                   | LTE Band66     | 132322         | 1745            | 1RB-Middle  | Tilt Left     | 0mm      | \               | 15.68                    | 16.5          | 1.21           | 0.311                  | 0.38                     | 0.159                   | 0.19                      | -0.07       |
| 4   | Head                   | LTE Band66     | 132322         | 1745            | 1RB-Middle  | Cheek Right   | 0mm      | \               | 15.68                    | 16.5          | 1.21           | 0.465                  | 0.56                     | 0.21                    | 0.25                      | 0.16        |
| 4   | Head                   | LTE Band66     | 132322         | 1745            | 1RB-Middle  | Tilt Right    | 0mm      | \               | 15.68                    | 16.5          | 1.21           | 0.558                  | 0.67                     | 0.256                   | 0.31                      | -0.09       |
| 4   | Head                   | LTE Band66     | 132322         | 1745            | 50RB-Middle | Cheek Left    | 0mm      | \               | 15.75                    | 16.5          | 1.19           | 0.226                  | 0.27                     | 0.117                   | 0.14                      | 0.12        |
| 4   | Head                   | LTE Band66     | 132322         | 1745            | 50RB-Middle | Tilt Left     | 0mm      | \               | 15.75                    | 16.5          | 1.19           | 0.305                  | 0.36                     | 0.156                   | 0.19                      | -0.17       |
| 4   | Head                   | LTE Band66     | 132322         | 1745            | 50RB-Middle | Cheek Right   | 0mm      | \               | 15.75                    | 16.5          | 1.19           | 0.462                  | 0.55                     | 0.209                   | 0.25                      | -0.07       |
| 4   | Head                   | LTE Band66     | 132322         | 1745            | 50RB-Middle | Tilt Right    | 0mm      | 70              | 15.75                    | 16.5          | 1.19           | 0.553                  | 0.66                     | 0.253                   | 0.30                      | 0.06        |
| 4   | Body                   | LTE Band66     | 132322         | 1745            | 1RB-Middle  | Front         | 15mm     | \               | 22.23                    | 23            | 1.19           | 0.298                  | 0.36                     | 0.174                   | 0.21                      | 0.06        |
| 4   | Body                   | LTE Band66     | 132322         | 1745            | 1RB-Middle  | Rear          | 15mm     | 71              | 22.23                    | 23            | 1.19           | 0.648                  | 0.77                     | 0.358                   | 0.43                      | -0.15       |
| 4   | Body                   | LTE Band66     | 132322         | 1745            | 50RB-Middle | Front         | 15mm     | \               | 22.21                    | 23            | 1.20           | 0.293                  | 0.35                     | 0.17                    | 0.20                      | -0.07       |
| 4   | Body                   | LTE Band66     | 132322         | 1745            | 50RB-Middle | Rear          | 15mm     | \               | 22.21                    | 23            | 1.20           | 0.634                  | 0.76                     | 0.351                   | 0.42                      | 0.08        |
| 4   | Body                   | LTE Band66     | 132322         | 1745            | 1RB-Middle  | Front         | 10mm     | \               | 18.7                     | 19.5          | 1.20           | 0.242                  | 0.29                     | 0.125                   | 0.15                      | 0.02        |
| 4   | Body                   | LTE Band66     | 132322         | 1745            | 1RB-Middle  | Rear          | 10mm     | \               | 18.7                     | 19.5          | 1.20           | 0.531                  | 0.64                     | 0.257                   | 0.31                      | -0.16       |
| 4   | Body                   | LTE Band66     | 132322         | 1745            | 1RB-Middle  | Left          | 10mm     | \               | 18.7                     | 19.5          | 1.20           | 0.082                  | 0.10                     | 0.043                   | 0.05                      | -0.04       |
| 4   | Body                   | LTE Band66     | 132322         | 1745            | 1RB-Middle  | Top           | 10mm     | \               | 18.7                     | 19.5          | 1.20           | 0.579                  | 0.70                     | 0.286                   | 0.34                      | 0.01        |
| 4   | Body                   | LTE Band66     | 132322         | 1745            | 50RB-Middle | Front         | 10mm     | \               | 18.74                    | 19.5          | 1.19           | 0.24                   | 0.29                     | 0.124                   | 0.15                      | 0.09        |
| 4   | Body                   | LTE Band66     | 132322         | 1745            | 50RB-Middle | Rear          | 10mm     | \               | 18.74                    | 19.5          | 1.19           | 0.522                  | 0.62                     | 0.258                   | 0.31                      | -0.02       |
| 4   | Body                   | LTE Band66     | 132322         | 1745            | 50RB-Middle | Left          | 10mm     | \               | 18.74                    | 19.5          | 1.19           | 0.065                  | 0.08                     | 0.038                   | 0.05                      | -0.09       |
| 4   | Body                   | LTE Band66     | 132322         | 1745            | 50RB-Middle | Top           | 10mm     | \               | 18.74                    | 19.5          | 1.19           | 0.602                  | 0.72                     | 0.291                   | 0.35                      | 0.03        |

## 14.2 SAR Evaluation for WIFI

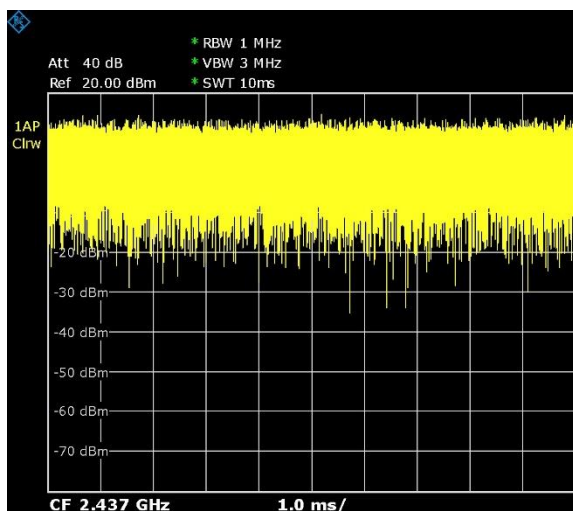
The maximum output power specified for production units are determined for all applicable 802.11 transmission modes in each standalone and aggregated frequency band. Maximum output power is measured for the highest maximum output power configuration(s) in each frequency band according to the default 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/ax modes, the channel in the lower order/sequence 802.11 mode (i.e. a, g, n ac then ax) is selected.

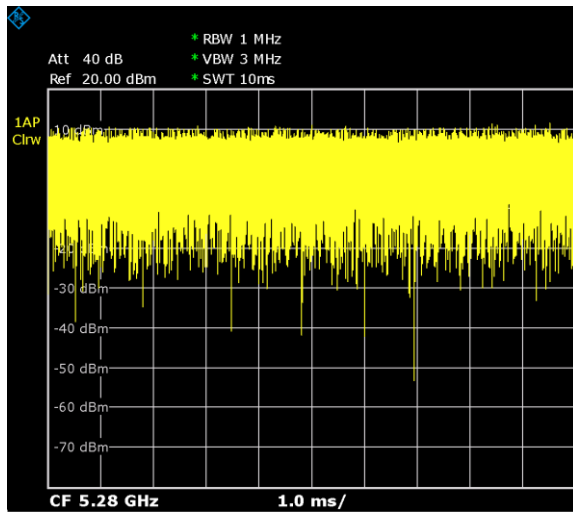
SAR Test reduction was applied from KDB 248227 guidance, when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest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

### Duty factor plot

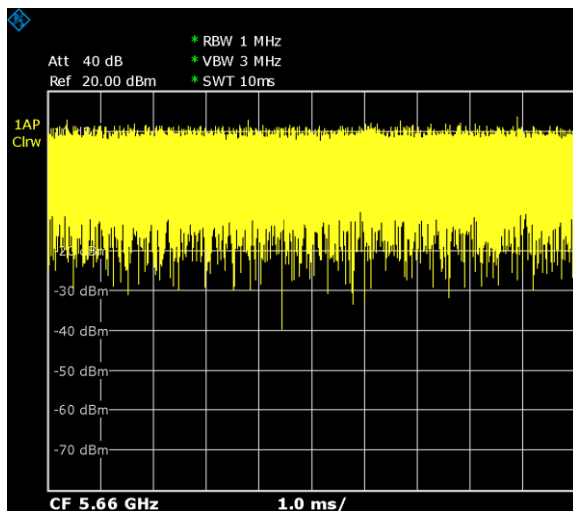
#### CH6



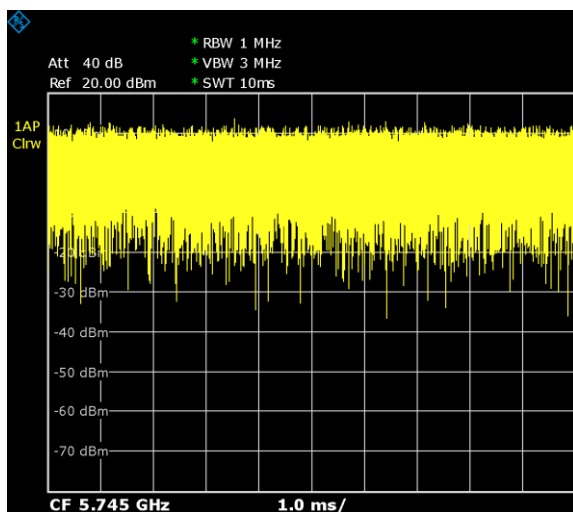
CH56



CH132



CH149





**SAR results for WLAN 2.4G**

| ANT                           | RF Exposure Condition | Frequency Band | Channel Number | Frequency (MHz) | Mode            | Test Position | Distance | Figure No./Note | EUT Measured Power (dBm) | Tune up (dBm) | Duty Cycle | Scaling factor | Measured SAR 1g (W/kg) | Calculated SAR 1g (W/kg) | Measured SAR 10g (W/kg) | Calculated SAR 10g (W/kg) | Power Drift |
|-------------------------------|-----------------------|----------------|----------------|-----------------|-----------------|---------------|----------|-----------------|--------------------------|---------------|------------|----------------|------------------------|--------------------------|-------------------------|---------------------------|-------------|
| <b>WIFI 802.11g 6M 14.5dB</b> |                       |                |                |                 |                 |               |          |                 |                          |               |            |                |                        |                          |                         |                           |             |
| 7                             | Head                  | WIFI2.4G       | 6              | 2437            | WIFI 802.11g 6M | Cheek Left    | 0mm      | \               | 14.63                    | 15.5          | 100.00%    | 1.22           | 0.261                  | <b>0.32</b>              | 0.146                   | <b>0.18</b>               | -0.03       |
| 7                             | Head                  | WIFI2.4G       | 6              | 2437            | WIFI 802.11g 6M | Tilt Left     | 0mm      | \               | 14.63                    | 15.5          | 100.00%    | 1.22           | 0.302                  | <b>0.37</b>              | 0.173                   | <b>0.21</b>               | -0.06       |
| 7                             | Head                  | WIFI2.4G       | 6              | 2437            | WIFI 802.11g 6M | Cheek Right   | 0mm      | \               | 14.63                    | 15.5          | 100.00%    | 1.22           | 0.259                  | <b>0.32</b>              | 0.142                   | <b>0.17</b>               | 0.08        |
| 7                             | Head                  | WIFI2.4G       | 6              | 2437            | WIFI 802.11g 6M | Tilt Right    | 0mm      | 73              | 14.63                    | 15.5          | 100.00%    | 1.22           | 0.367                  | <b>0.45</b>              | 0.186                   | <b>0.23</b>               | -0.01       |
| <b>WIFI 802.11g 6M 14.5dB</b> |                       |                |                |                 |                 |               |          |                 |                          |               |            |                |                        |                          |                         |                           |             |
| 7                             | Body                  | WIFI2.4G       | 6              | 2437            | WIFI 802.11g 6M | Front         | 15mm     | \               | 14.63                    | 15.5          | 100.00%    | 1.22           | 0.038                  | <b>0.05</b>              | 0.022                   | <b>0.03</b>               | -0.11       |
| 7                             | Body                  | WIFI2.4G       | 6              | 2437            | WIFI 802.11g 6M | Rear          | 15mm     | 74              | 14.63                    | 15.5          | 100.00%    | 1.22           | 0.061                  | <b>0.07</b>              | 0.036                   | <b>0.04</b>               | 0.05        |
| <b>WIFI 802.11g 6M 14.5dB</b> |                       |                |                |                 |                 |               |          |                 |                          |               |            |                |                        |                          |                         |                           |             |
| 7                             | Body                  | WIFI2.4G       | 6              | 2437            | WIFI 802.11g 6M | Front         | 10mm     | \               | 14.63                    | 15.5          | 100.00%    | 1.22           | 0.072                  | <b>0.09</b>              | 0.041                   | <b>0.05</b>               | 0.18        |
| 7                             | Body                  | WIFI2.4G       | 6              | 2437            | WIFI 802.11g 6M | Rear          | 10mm     | \               | 14.63                    | 15.5          | 100.00%    | 1.22           | 0.108                  | <b>0.13</b>              | 0.061                   | <b>0.07</b>               | 0.09        |
| 7                             | Body                  | WIFI2.4G       | 6              | 2437            | WIFI 802.11g 6M | Right         | 10mm     | \               | 14.63                    | 15.5          | 100.00%    | 1.22           | <0.01                  | <0.01                    | <0.01                   | <0.01                     | \           |
| 7                             | Body                  | WIFI2.4G       | 6              | 2437            | WIFI 802.11g 6M | Top           | 10mm     | 75              | 14.63                    | 15.5          | 100.00%    | 1.22           | 0.144                  | <b>0.18</b>              | 0.077                   | <b>0.09</b>               | 0.11        |
| 7                             | Limb                  | WIFI2.4G       | 6              | 2437            | WIFI 802.11g 6M | Rear          | 0mm      | \               | 14.63                    | 15.5          | 100.00%    | 1.22           | 0.238                  | <b>0.29</b>              | 0.104                   | <b>0.13</b>               | 0.04        |
| 7                             | Limb                  | WIFI2.4G       | 6              | 2437            | WIFI 802.11g 6M | Top           | 0mm      | \               | 14.63                    | 15.5          | 100.00%    | 1.22           | 2.02                   | <b>2.47</b>              | 0.707                   | <b>0.86</b>               | 0.01        |

**SAR results for WLAN 5G**

| ANT                           | RF Exposure Condition | Frequency Band  | Channel Number | Frequency (MHz) | Mode            | Test Position | Distance | Figure No./Note | EUT Measured Power (dBm) | Tune up (dBm) | Duty Cycle | Scaling factor | Measured SAR 1g (W/kg) | Calculated SAR 1g (W/kg) | Measured SAR 10g (W/kg) | Calculated SAR 10g (W/kg) | Power Drift |
|-------------------------------|-----------------------|-----------------|----------------|-----------------|-----------------|---------------|----------|-----------------|--------------------------|---------------|------------|----------------|------------------------|--------------------------|-------------------------|---------------------------|-------------|
| <b>WIFI 802.11a 6M 14.5dB</b> |                       |                 |                |                 |                 |               |          |                 |                          |               |            |                |                        |                          |                         |                           |             |
| 7                             | Head                  | WIFI5G U-NII-2A | 56             | 5680            | WIFI 802.11a 6M | Cheek Left    | 0mm      | \               | 14.55                    | 16            | 100.00%    | 1.40           | 0.308                  | <b>0.43</b>              | 0.101                   | <b>0.14</b>               | 0.1         |
| 7                             | Head                  | WIFI5G U-NII-2A | 56             | 5680            | WIFI 802.11a 6M | Tilt Left     | 0mm      | 76              | 14.55                    | 16            | 100.00%    | 1.40           | 0.318                  | <b>0.44</b>              | 0.108                   | <b>0.15</b>               | -0.06       |
| 7                             | Head                  | WIFI5G U-NII-2A | 56             | 5680            | WIFI 802.11a 6M | Cheek Right   | 0mm      | \               | 14.55                    | 16            | 100.00%    | 1.40           | 0.217                  | <b>0.30</b>              | 0.076                   | <b>0.11</b>               | 0.12        |
| 7                             | Head                  | WIFI5G U-NII-2A | 56             | 5680            | WIFI 802.11a 6M | Tilt Right    | 0mm      | \               | 14.55                    | 16            | 100.00%    | 1.40           | 0.205                  | <b>0.29</b>              | 0.087                   | <b>0.12</b>               | -0.16       |
| 7                             | Head                  | WIFI5G U-NII-2C | 132            | 5660            | WIFI 802.11a 6M | Cheek Left    | 0mm      | \               | 14.78                    | 16            | 100.00%    | 1.32           | 0.187                  | <b>0.25</b>              | 0.063                   | <b>0.08</b>               | -0.14       |
| 7                             | Head                  | WIFI5G U-NII-2C | 132            | 5660            | WIFI 802.11a 6M | Tilt Left     | 0mm      | \               | 14.78                    | 16            | 100.00%    | 1.32           | 0.285                  | <b>0.38</b>              | 0.092                   | <b>0.12</b>               | 0.09        |
| 7                             | Head                  | WIFI5G U-NII-2C | 132            | 5660            | WIFI 802.11a 6M | Cheek Right   | 0mm      | \               | 14.78                    | 16            | 100.00%    | 1.32           | 0.158                  | <b>0.21</b>              | 0.056                   | <b>0.07</b>               | 0.07        |
| 7                             | Head                  | WIFI5G U-NII-2C | 132            | 5660            | WIFI 802.11a 6M | Tilt Right    | 0mm      | \               | 14.78                    | 16            | 100.00%    | 1.32           | 0.225                  | <b>0.30</b>              | 0.09                    | <b>0.12</b>               | 0.08        |
| 7                             | Head                  | WIFI5G U-NII-3  | 149            | 5745            | WIFI 802.11a 6M | Cheek Left    | 0mm      | \               | 14.83                    | 16            | 100.00%    | 1.31           | 0.065                  | <b>0.09</b>              | 0.028                   | <b>0.04</b>               | -0.05       |
| 7                             | Head                  | WIFI5G U-NII-3  | 149            | 5745            | WIFI 802.11a 6M | Tilt Left     | 0mm      | \               | 14.83                    | 16            | 100.00%    | 1.31           | 0.272                  | <b>0.36</b>              | 0.088                   | <b>0.12</b>               | -0.07       |
| 7                             | Head                  | WIFI5G U-NII-3  | 149            | 5745            | WIFI 802.11a 6M | Cheek Right   | 0mm      | \               | 14.83                    | 16            | 100.00%    | 1.31           | 0.084                  | <b>0.11</b>              | 0.036                   | <b>0.05</b>               | 0.18        |
| 7                             | Head                  | WIFI5G U-NII-3  | 149            | 5745            | WIFI 802.11a 6M | Tilt Right    | 0mm      | \               | 14.83                    | 16            | 100.00%    | 1.31           | 0.179                  | <b>0.23</b>              | 0.067                   | <b>0.09</b>               | 0.03        |
| <b>WIFI 802.11a 6M 14.5dB</b> |                       |                 |                |                 |                 |               |          |                 |                          |               |            |                |                        |                          |                         |                           |             |
| 7                             | Body                  | WIFI5G U-NII-2A | 56             | 5680            | WIFI 802.11a 6M | Front         | 15mm     | \               | 14.55                    | 16            | 100.00%    | 1.40           | 0.073                  | <b>0.10</b>              | 0.027                   | <b>0.04</b>               | 0.08        |
| 7                             | Body                  | WIFI5G U-NII-2A | 56             | 5680            | WIFI 802.11a 6M | Rear          | 15mm     | \               | 14.55                    | 16            | 100.00%    | 1.40           | 0.152                  | <b>0.21</b>              | 0.065                   | <b>0.09</b>               | 0.07        |
| 7                             | Body                  | WIFI5G U-NII-2C | 132            | 5660            | WIFI 802.11a 6M | Front         | 15mm     | \               | 14.78                    | 16            | 100.00%    | 1.32           | 0.154                  | <b>0.20</b>              | 0.044                   | <b>0.06</b>               | -0.07       |
| 7                             | Body                  | WIFI5G U-NII-2C | 132            | 5660            | WIFI 802.11a 6M | Rear          | 15mm     | \               | 14.78                    | 16            | 100.00%    | 1.32           | 0.277                  | <b>0.37</b>              | 0.106                   | <b>0.14</b>               | -0.03       |
| 7                             | Body                  | WIFI5G U-NII-3  | 149            | 5745            | WIFI 802.11a 6M | Front         | 15mm     | \               | 14.83                    | 16            | 100.00%    | 1.31           | 0.125                  | <b>0.16</b>              | 0.034                   | <b>0.04</b>               | 0.01        |
| 7                             | Body                  | WIFI5G U-NII-3  | 149            | 5745            | WIFI 802.11a 6M | Rear          | 15mm     | 77              | 14.83                    | 16            | 100.00%    | 1.31           | 0.321                  | <b>0.42</b>              | 0.122                   | <b>0.16</b>               | -0.07       |
| <b>WIFI 802.11a 6M 14.5dB</b> |                       |                 |                |                 |                 |               |          |                 |                          |               |            |                |                        |                          |                         |                           |             |
| 7                             | Body                  | WIFI5G U-NII-2A | 56             | 5680            | WIFI 802.11a 6M | Front         | 10mm     | \               | 14.55                    | 16            | 100.00%    | 1.40           | 0.152                  | <b>0.21</b>              | 0.042                   | <b>0.06</b>               | 0.11        |
| 7                             | Body                  | WIFI5G U-NII-2A | 56             | 5680            | WIFI 802.11a 6M | Rear          | 10mm     | \               | 14.55                    | 16            | 100.00%    | 1.40           | 0.277                  | <b>0.39</b>              | 0.09                    | <b>0.13</b>               | 0.03        |
| 7                             | Body                  | WIFI5G U-NII-2A | 56             | 5680            | WIFI 802.11a 6M | Right         | 10mm     | \               | 14.55                    | 16            | 100.00%    | 1.40           | 0.154                  | <b>0.22</b>              | 0.041                   | <b>0.06</b>               | -0.05       |
| 7                             | Body                  | WIFI5G U-NII-2A | 56             | 5680            | WIFI 802.11a 6M | Top           | 10mm     | \               | 14.55                    | 16            | 100.00%    | 1.40           | 0.27                   | <b>0.38</b>              | 0.099                   | <b>0.14</b>               | 0.06        |
| 7                             | Body                  | WIFI5G U-NII-2C | 132            | 5660            | WIFI 802.11a 6M | Front         | 10mm     | \               | 14.78                    | 16            | 100.00%    | 1.32           | 0.118                  | <b>0.16</b>              | 0.03                    | <b>0.04</b>               | 0.14        |
| 7                             | Body                  | WIFI5G U-NII-2C | 132            | 5660            | WIFI 802.11a 6M | Rear          | 10mm     | \               | 14.78                    | 16            | 100.00%    | 1.32           | 0.494                  | <b>0.65</b>              | 0.152                   | <b>0.20</b>               | 0.12        |
| 7                             | Body                  | WIFI5G U-NII-2C | 132            | 5660            | WIFI 802.11a 6M | Right         | 10mm     | \               | 14.78                    | 16            | 100.00%    | 1.32           | 0.065                  | <b>0.09</b>              | 0.026                   | <b>0.03</b>               | -0.11       |
| 7                             | Body                  | WIFI5G U-NII-2C | 132            | 5660            | WIFI 802.11a 6M | Top           | 10mm     | \               | 14.78                    | 16            | 100.00%    | 1.32           | 0.306                  | <b>0.41</b>              | 0.108                   | <b>0.14</b>               | 0.12        |
| 7                             | Body                  | WIFI5G U-NII-3  | 149            | 5745            | WIFI 802.11a 6M | Front         | 10mm     | \               | 14.83                    | 16            | 100.00%    | 1.31           | 0.058                  | <b>0.08</b>              | 0.014                   | <b>0.02</b>               | 0.18        |
| 7                             | Body                  | WIFI5G U-NII-3  | 149            | 5745            | WIFI 802.11a 6M | Rear          | 10mm     | 78              | 14.83                    | 16            | 100.00%    | 1.31           | 0.607                  | <b>0.79</b>              | 0.184                   | <b>0.24</b>               | -0.02       |
| 7                             | Body                  | WIFI5G U-NII-3  | 149            | 5745            | WIFI 802.11a 6M | Right         | 10mm     | \               | 14.83                    | 16            | 100.00%    | 1.31           | 0.135                  | <b>0.18</b>              | 0.031                   | <b>0.04</b>               | 0.01        |
| 7                             | Body                  | WIFI5G U-NII-3  | 149            | 5745            | WIFI 802.11a 6M | Top           | 10mm     | \               | 14.83                    | 16            | 100.00%    | 1.31           | 0.269                  | <b>0.35</b>              | 0.098                   | <b>0.13</b>               | 0.13        |
| 7                             | Limb                  | WIFI5G U-NII-3  | 149            | 5745            | WIFI 802.11a 6M | Rear          | 0mm      | \               | 14.83                    | 16            | 100.00%    | 1.31           | 1.65                   | <b>2.16</b>              | 0.435                   | <b>0.57</b>               | 0.12        |
| 7                             | Limb                  | WIFI5G U-NII-3  | 149            | 5745            | WIFI 802.11a 6M | Top           | 0mm      | \               | 14.83                    | 16            | 100.00%    | 1.31           | 1.39                   | <b>1.82</b>              | 0.45                    | <b>0.59</b>               | -0.07       |

### 14.3 SAR Evaluation For BT

#### SAR results for BT

| ANT          | RF Exposure Condition | Frequency Band | Channel Number | Frequency (MHz) | Mode | Test Position | Distance | Figure No./Note | EUT Measured Power (dBm) | Tune up (dBm) | Scaling factor | Measured SAR 1g (W/kg) | Calculated SAR 1g (W/kg) | Measured SAR 10g (W/kg) | Calculated SAR 10g (W/kg) | Power Drift |
|--------------|-----------------------|----------------|----------------|-----------------|------|---------------|----------|-----------------|--------------------------|---------------|----------------|------------------------|--------------------------|-------------------------|---------------------------|-------------|
| <b>BT BR</b> |                       |                |                |                 |      |               |          |                 |                          |               |                |                        |                          |                         |                           |             |
| 7            | Head                  | BT             | 0              | 2402            | DH5  | Cheek Left    | 0mm      | \               | 11.3                     | 12.5          | 1.32           | 0.098                  | <b>0.13</b>              | 0.053                   | <b>0.07</b>               | -0.14       |
| 7            | Head                  | BT             | 0              | 2402            | DH5  | Tilt Left     | 0mm      | \               | 11.3                     | 12.5          | 1.32           | 0.102                  | <b>0.13</b>              | 0.051                   | <b>0.07</b>               | -0.07       |
| 7            | Head                  | BT             | 0              | 2402            | DH5  | Cheek Right   | 0mm      | \               | 11.3                     | 12.5          | 1.32           | 0.103                  | <b>0.14</b>              | 0.053                   | <b>0.07</b>               | 0.04        |
| 7            | Head                  | BT             | 0              | 2402            | DH5  | Tilt Right    | 0mm      | 79              | 11.3                     | 12.5          | 1.32           | 0.119                  | <b>0.16</b>              | 0.059                   | <b>0.08</b>               | -0.06       |
| <b>BT BR</b> |                       |                |                |                 |      |               |          |                 |                          |               |                |                        |                          |                         |                           |             |
| 7            | Body                  | BT             | 0              | 2402            | DH5  | Front         | 15mm     | \               | 11.3                     | 12.5          | 1.32           | <0.01                  | <0.01                    | <0.01                   | <0.01                     | \           |
| 7            | Body                  | BT             | 0              | 2402            | DH5  | Rear          | 15mm     | 80              | 11.3                     | 12.5          | 1.32           | 0.024                  | <b>0.03</b>              | 0.013                   | <b>0.02</b>               | -0.01       |
| <b>BT BR</b> |                       |                |                |                 |      |               |          |                 |                          |               |                |                        |                          |                         |                           |             |
| 7            | Body                  | BT             | 0              | 2402            | DH5  | Front         | 10mm     | \               | 11.3                     | 12.5          | 1.32           | 0.032                  | <b>0.04</b>              | 0.019                   | <b>0.03</b>               | 0.04        |
| 7            | Body                  | BT             | 0              | 2402            | DH5  | Rear          | 10mm     | \               | 11.3                     | 12.5          | 1.32           | 0.056                  | <b>0.07</b>              | 0.029                   | <b>0.04</b>               | 0.08        |
| 7            | Body                  | BT             | 0              | 2402            | DH5  | Right         | 10mm     | \               | 11.3                     | 12.5          | 1.32           | <0.01                  | <0.01                    | <0.01                   | <0.01                     | \           |
| 7            | Body                  | BT             | 0              | 2402            | DH5  | Top           | 10mm     | 81              | 11.3                     | 12.5          | 1.32           | 0.055                  | <b>0.07</b>              | 0.03                    | <b>0.04</b>               | -0.11       |
| <b>BT BR</b> |                       |                |                |                 |      |               |          |                 |                          |               |                |                        |                          |                         |                           |             |
| 7            | Limb                  | BT             | 0              | 2402            | DH5  | Rear          | 0mm      | \               | 11.3                     | 12.5          | 1.32           | 0.123                  | <b>0.16</b>              | 0.071                   | <b>0.09</b>               | -0.03       |
| 7            | Limb                  | BT             | 0              | 2402            | DH5  | Top           | 0mm      | \               | 11.3                     | 12.5          | 1.32           | 0.412                  | <b>0.54</b>              | 0.157                   | <b>0.21</b>               | -0.03       |

### 14.4 SAR results for 10-g extremity SAR

According to the KDB648474 D04, the UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna located at  $\leq 25$  mm from that surface or edge, in direct contact with a flat phantom, for 10-g extremity SAR according to the body-equivalent tissue dielectric parameters in KDB Publication 865664 D01 to address interactive hand use exposure conditions. When hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR  $> 1.2$  W/kg. If power reduction applied for hotspot mode, the SAR values should be scaled to normal power, and then compare it with 1.2W/kg.

The 10g extremity SAR is not required for this DUT, because all the hotspot mode 1g reported SAR is less than 1.2 W/kg.

| ANT          | RF Exposure Conditions | Frequency Band | Channel Number | Frequency (MHz) | Mode            | Test Position | Distance | EUT Measured Power (dBm) | Tune up (dBm) | Scaling factor | Measured SAR 1g (W/kg) | Calculated SAR 1g (W/kg) | Measured SAR 10g (W/kg) | Calculated SAR 10g (W/kg) | Power Drift |  |
|--------------|------------------------|----------------|----------------|-----------------|-----------------|---------------|----------|--------------------------|---------------|----------------|------------------------|--------------------------|-------------------------|---------------------------|-------------|--|
| 1            | Body                   | GSM1900        | 661            | 1880            | GPRS(2)         | Bottom        | 0mm      | 27.15                    | 28.5          | 1.36           | 4.74                   | <b>6.47</b>              | 1.74                    | <b>2.37</b>               | 0.06        |  |
| 1            | Body                   | GSM1900        | 512            | 1850.2          | GPRS(2)         | Bottom        | 0mm      | 27.1                     | 28.5          | 1.38           | 3.75                   | <b>5.18</b>              | 1.53                    | <b>2.11</b>               | -0.07       |  |
| 1            | Body                   | GSM1900        | 810            | 1909.8          | GPRS(2)         | Bottom        | 0mm      | 27.2                     | 28.5          | 1.35           | 4.97                   | <b>6.70</b>              | 1.9                     | <b>2.56</b>               | -0.01       |  |
| <b>BT BR</b> |                        |                |                |                 |                 |               |          |                          |               |                |                        |                          |                         |                           |             |  |
| 1            | Body                   | WCDMA 1900     | 9262           | 1852.4          | RMC             | Bottom        | 0mm      | 19.71                    | 21            | 1.35           | 4.08                   | <b>5.49</b>              | 1.57                    | <b>2.11</b>               | 0.01        |  |
| 1            | Body                   | WCDMA 1900     | 9400           | 1880            | RMC             | Bottom        | 0mm      | 19.75                    | 21            | 1.33           | 3.7                    | <b>4.93</b>              | 1.45                    | <b>1.93</b>               | 0.02        |  |
| 1            | Body                   | WCDMA 1900     | 9538           | 1907.6          | RMC             | Bottom        | 0mm      | 19.73                    | 21            | 1.34           | 3.17                   | <b>4.25</b>              | 1.31                    | <b>1.75</b>               | -0.03       |  |
| <b>BT BR</b> |                        |                |                |                 |                 |               |          |                          |               |                |                        |                          |                         |                           |             |  |
| 1            | Body                   | WCDMA 1700     | 1312           | 1712.4          | RMC             | Bottom        | 0mm      | 20.63                    | 22            | 1.37           | 3.83                   | <b>5.25</b>              | 1.82                    | <b>2.50</b>               | 0.01        |  |
| 1            | Body                   | WCDMA 1700     | 1412           | 1732.4          | RMC             | Bottom        | 0mm      | 20.65                    | 22            | 1.36           | 3.17                   | <b>4.33</b>              | 1.77                    | <b>2.42</b>               | -0.05       |  |
| 1            | Body                   | WCDMA 1700     | 1513           | 1752.6          | RMC             | Bottom        | 0mm      | 20.61                    | 22            | 1.38           | 3.68                   | <b>5.07</b>              | 1.74                    | <b>2.40</b>               | -0.07       |  |
| <b>BT BR</b> |                        |                |                |                 |                 |               |          |                          |               |                |                        |                          |                         |                           |             |  |
| 1            | Body                   | LTE Band2      | 18900          | 1880            | 50RB-Middle     | Bottom        | 0mm      | 19.42                    | 21            | 1.44           | 3.81                   | <b>5.48</b>              | 1.53                    | <b>2.20</b>               | -0.1        |  |
| 1            | Body                   | LTE Band2      | 18700          | 1860            | 50RB-Middle     | Bottom        | 0mm      | 19.46                    | 21            | 1.43           | 3.67                   | <b>5.23</b>              | 1.51                    | <b>2.15</b>               | 0.08        |  |
| 1            | Body                   | LTE Band2      | 19100          | 1900            | 50RB-Middle     | Bottom        | 0mm      | 19.45                    | 21            | 1.43           | 3.45                   | <b>4.93</b>              | 1.41                    | <b>2.01</b>               | -0.12       |  |
| <b>BT BR</b> |                        |                |                |                 |                 |               |          |                          |               |                |                        |                          |                         |                           |             |  |
| 1            | Body                   | LTE Band66     | 132322         | 1745            | 1RB-Middle      | Bottom        | 0mm      | 20.98                    | 22            | 1.26           | 4.1                    | <b>5.19</b>              | 1.77                    | <b>2.24</b>               | 0.06        |  |
| 1            | Body                   | LTE Band66     | 132072         | 1720            | 1RB-Middle      | Bottom        | 0mm      | 20.91                    | 22            | 1.29           | 4.4                    | <b>5.66</b>              | 1.82                    | <b>2.34</b>               | 0.01        |  |
| 1            | Body                   | LTE Band66     | 132572         | 1770            | 1RB-Middle      | Bottom        | 0mm      | 20.91                    | 22            | 1.29           | 3.86                   | <b>4.96</b>              | 1.65                    | <b>2.12</b>               | -0.11       |  |
| <b>BT BR</b> |                        |                |                |                 |                 |               |          |                          |               |                |                        |                          |                         |                           |             |  |
| 4            | Body                   | WCDMA 1900     | 9538           | 1907.6          | RMC             | Top           | 0mm      | 21.44                    | 22.5          | 1.28           | 4.61                   | <b>5.88</b>              | 1.91                    | <b>2.44</b>               | -0.15       |  |
| 4            | Body                   | WCDMA 1900     | 9400           | 1880            | RMC             | Top           | 0mm      | 21.47                    | 22.5          | 1.27           | 4.78                   | <b>6.06</b>              | 1.97                    | <b>2.50</b>               | 0.07        |  |
| 4            | Body                   | WCDMA 1900     | 9262           | 1852.4          | RMC             | Top           | 0mm      | 21.46                    | 22.5          | 1.27           | 5.02                   | <b>6.38</b>              | 2.02                    | <b>2.57</b>               | -0.08       |  |
| <b>BT BR</b> |                        |                |                |                 |                 |               |          |                          |               |                |                        |                          |                         |                           |             |  |
| 4            | Limb                   | LTE Band2      | 19100          | 1900            | 1RB-Middle      | Rear          | 0mm      | 21.33                    | 22.5          | 1.31           | 2.45                   | <b>3.21</b>              | 1.09                    | <b>1.43</b>               | 0.06        |  |
| 4            | Limb                   | LTE Band2      | 18900          | 1880            | 1RB-Middle      | Rear          | 0mm      | 21.36                    | 22.5          | 1.30           | 2.32                   | <b>3.02</b>              | 1.03                    | <b>1.34</b>               | -0.07       |  |
| 4            | Limb                   | LTE Band2      | 18700          | 1860            | 1RB-Middle      | Rear          | 0mm      | 21.34                    | 22.5          | 1.31           | 1.92                   | <b>2.51</b>              | 0.868                   | <b>1.13</b>               | 0.05        |  |
| 4            | Limb                   | LTE Band2      | 19100          | 1900            | 1RB-Middle      | Top           | 0mm      | 21.33                    | 22.5          | 1.31           | 4.71                   | <b>6.17</b>              | 1.84                    | <b>2.41</b>               | 0.02        |  |
| 4            | Limb                   | LTE Band2      | 18900          | 1880            | 1RB-Middle      | Top           | 0mm      | 21.36                    | 22.5          | 1.30           | 4.62                   | <b>6.01</b>              | 1.82                    | <b>2.37</b>               | 0.03        |  |
| 4            | Limb                   | LTE Band2      | 18700          | 1860            | 1RB-Middle      | Top           | 0mm      | 21.34                    | 22.5          | 1.31           | 4.38                   | <b>5.72</b>              | 1.79                    | <b>2.34</b>               | -0.01       |  |
| <b>BT BR</b> |                        |                |                |                 |                 |               |          |                          |               |                |                        |                          |                         |                           |             |  |
| 7            | Limb                   | WiFi2.4G       | 6              | 2437            | WiFi 802.11g 6M | Rear          | 0mm      | 14.63                    | 15.5          | 1.22           | 0.238                  | <b>0.29</b>              | 0.104                   | <b>0.13</b>               | 0.04        |  |
| 7            | Limb                   | WiFi2.4G       | 6              | 2437            | WiFi 802.11g 6M | Top           | 0mm      | 14.63                    | 15.5          | 1.22           | 2.02                   | <b>2.47</b>              | 0.707                   | <b>0.86</b>               | 0.01        |  |
| <b>BT BR</b> |                        |                |                |                 |                 |               |          |                          |               |                |                        |                          |                         |                           |             |  |
| 7            | Limb                   | WiFi5G U-NII-3 | 149            | 5745            | WiFi 802.11a 6M | Rear          | 0mm      | 14.83                    | 16            | 1.31           | 1.65                   | <b>2.16</b>              | 0.435                   | <b>0.57</b>               | 0.12        |  |
| 7            | Limb                   | WiFi5G U-NII-3 | 149            | 5745            | WiFi 802.11a 6M | Top           | 0mm      | 14.83                    | 16            | 1.31           | 1.39                   | <b>1.82</b>              | 0.45                    | <b>0.59</b>               | -0.07       |  |
| <b>BT BR</b> |                        |                |                |                 |                 |               |          |                          |               |                |                        |                          |                         |                           |             |  |
| 7            | Limb                   | BT             | 0              | 2402            | DH5             | Rear          | 0mm      | 11.3                     | 12.5          | 1.32           | 0.123                  | <b>0.16</b>              | 0.071                   | <b>0.09</b>               | -0.03       |  |
| 7            | Limb                   | BT             | 0              | 2402            | DH5             | Top           | 0mm      | 11.3                     | 12.5          | 1.32           | 0.412                  | <b>0.54</b>              | 0.157                   | <b>0.21</b>               | -0.03       |  |

## 15 SAR Measurement Variability

SAR measurement variability must be assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media are required for SAR measurements in a frequency band, the variability measurement procedures should be applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium.

The following procedures are applied to determine if repeated measurements are required.

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

| Band    | Frequency |      | Setup    | Test Position | Original SAR (W/kg) | First Repeated SAR (W/kg) | The Ratio | Second Repeated SAR (W/kg) |
|---------|-----------|------|----------|---------------|---------------------|---------------------------|-----------|----------------------------|
|         | Ch.       | MHz  |          |               |                     |                           |           |                            |
| LTE B2  | 18900     | 1880 | 1RB-Mid  | Right Tilt    | 0.841               | 0.825                     | 1.02      | \                          |
| LTE B41 | 40620     | 2593 | 50RB-Mid | Right Tilt    | 0.818               | 0.803                     | 1.02      | \                          |
| LTE B41 | 40620     | 2593 | 1RB-Mid  | Top 10mm      | 0.822               | 0.811                     | 1.01      | \                          |

## 16 Measurement Uncertainty

### 16.1 Measurement Uncertainty for Normal SAR Tests (300MHz~3GHz)

| No.                        | Error Description                               | Type | Uncertainty value | Probably Distribution | Div.       | (Ci) 1g | (Ci) 10g | Std. Unc. (1g) | Std. Unc. (10g) | Degree of freedom |
|----------------------------|---|------|-------------------|-----------------------|------------|---------|----------|----------------|-----------------|-------------------|
| <b>Measurement system</b>  |   |      |                   |                       |            |         |          |                |                 |                   |
| 1                          | Probe calibration                               | B    | 6.0               | N                     | 1          | 1       | 1        | 6.0            | 6.0             | $\infty$          |
| 2                          | Isotropy  | B    | 4.7               | R                     | $\sqrt{3}$ | 0.7     | 0.7      | 1.9            | 1.9             | $\infty$          |
| 3                          | Boundary effect                                 | B    | 1.0               | R                     | $\sqrt{3}$ | 1       | 1        | 0.6            | 0.6             | $\infty$          |
| 4                          | Linearity                                       | B    | 4.7               | R                     | $\sqrt{3}$ | 1       | 1        | 2.7            | 2.7             | $\infty$          |
| 5                          | Detection limit                                 | B    | 1.0               | N                     | 1          | 1       | 1        | 0.6            | 0.6             | $\infty$          |
| 6                          | Readout electronics                             | B    | 0.3               | R                     | $\sqrt{3}$ | 1       | 1        | 0.3            | 0.3             | $\infty$          |
| 7                          | Response time                                   | B    | 0.8               | R                     | $\sqrt{3}$ | 1       | 1        | 0.5            | 0.5             | $\infty$          |
| 8                          | Integration time                                | B    | 2.6               | R                     | $\sqrt{3}$ | 1       | 1        | 1.5            | 1.5             | $\infty$          |
| 9                          | RF ambient conditions-noise                     | B    | 0                 | R                     | $\sqrt{3}$ | 1       | 1        | 0              | 0               | $\infty$          |
| 10                         | RF ambient conditions-reflection                | B    | 0                 | R                     | $\sqrt{3}$ | 1       | 1        | 0              | 0               | $\infty$          |
| 11                         | Probe positioned mech. restrictions             | B    | 0.4               | R                     | $\sqrt{3}$ | 1       | 1        | 0.2            | 0.2             | $\infty$          |
| 12                         | Probe positioning with respect to phantom shell | B    | 2.9               | R                     | $\sqrt{3}$ | 1       | 1        | 1.7            | 1.7             | $\infty$          |
| 13                         | Post-processing                                 | B    | 1.0               | R                     | $\sqrt{3}$ | 1       | 1        | 0.6            | 0.6             | $\infty$          |
| <b>Test sample related</b> |   |      |                   |                       |            |         |          |                |                 |                   |
| 14                         | Test sample positioning                         | A    | 3.3               | N                     | 1          | 1       | 1        | 3.3            | 3.3             | 71                |
| 15                         | Device holder uncertainty                       | A    | 3.4               | N                     | 1          | 1       | 1        | 3.4            | 3.4             | 5                 |
| 16                         | Drift of output power                           | B    | 5.0               | R                     | $\sqrt{3}$ | 1       | 1        | 2.9            | 2.9             | $\infty$          |
| <b>Phantom and set-up</b>  |   |      |                   |                       |            |         |          |                |                 |                   |
| 17                         | Phantom uncertainty                             | B    | 4.0               | R                     | $\sqrt{3}$ | 1       | 1        | 2.3            | 2.3             | $\infty$          |
| 18                         | Liquid conductivity (target)                    | B    | 5.0               | R                     | $\sqrt{3}$ | 0.64    | 0.43     | 1.8            | 1.2             | $\infty$          |
| 19                         | Liquid conductivity (meas.)                     | A    | 2.06              | N                     | 1          | 0.64    | 0.43     | 1.32           | 0.89            | 43                |
| 20                         | Liquid permittivity (target)                    | B    | 5.0               | R                     | $\sqrt{3}$ | 0.6     | 0.49     | 1.7            | 1.4             | $\infty$          |
| 21                         | Liquid permittivity (meas.)                     | A    | 1.6               | N                     | 1          | 0.6     | 0.49     | 1.0            | 0.8             | 521               |

|  |  |  |  |  |  |  |  |      |      |     |
|--|--|--|--|--|--|--|--|------|------|-----|
| Combined standard uncertainty                      | $u_c = \sqrt{\sum_{i=1}^{21} c_i^2 u_i^2}$ |  |  |  |  |  |  | 9.55 | 9.43 | 257 |
| Expanded uncertainty (confidence interval of 95 %) | $u_e = 2u_c$                               |  |  |  |  |  |  | 19.1 | 18.9 |     |

**16.2 Measurement Uncertainty for Normal SAR Tests (3~6GHz)**

| No.                        | Error Description                               | Type | Uncertainty value | Probably Distribution | Div.       | (Ci) 1g | (Ci) 10g | Std. Unc. (1g) | Std. Unc. (10g) | Degree of freedom |
|----------------------------|---|------|-------------------|-----------------------|------------|---------|----------|----------------|-----------------|-------------------|
| <b>Measurement system</b>  |   |      |                   |                       |            |         |          |                |                 |                   |
| 1                          | Probe calibration                               | B    | 6.55              | N                     | 1          | 1       | 1        | 6.55           | 6.55            | $\infty$          |
| 2                          | Isotropy  | B    | 4.7               | R                     | $\sqrt{3}$ | 0.7     | 0.7      | 1.9            | 1.9             | $\infty$          |
| 3                          | Boundary effect                                 | B    | 2.0               | R                     | $\sqrt{3}$ | 1       | 1        | 1.2            | 1.2             | $\infty$          |
| 4                          | Linearity                                       | B    | 4.7               | R                     | $\sqrt{3}$ | 1       | 1        | 2.7            | 2.7             | $\infty$          |
| 5                          | Detection limit                                 | B    | 1.0               | R                     | $\sqrt{3}$ | 1       | 1        | 0.6            | 0.6             | $\infty$          |
| 6                          | Readout electronics                             | B    | 0.3               | R                     | $\sqrt{3}$ | 1       | 1        | 0.3            | 0.3             | $\infty$          |
| 7                          | Response time                                   | B    | 0.8               | R                     | $\sqrt{3}$ | 1       | 1        | 0.5            | 0.5             | $\infty$          |
| 8                          | Integration time                                | B    | 2.6               | R                     | $\sqrt{3}$ | 1       | 1        | 1.5            | 1.5             | $\infty$          |
| 9                          | RF ambient conditions-noise                     | B    | 0                 | R                     | $\sqrt{3}$ | 1       | 1        | 0              | 0               | $\infty$          |
| 10                         | RFambient conditions-reflection                 | B    | 0                 | R                     | $\sqrt{3}$ | 1       | 1        | 0              | 0               | $\infty$          |
| 11                         | Probe positioned mech. restrictions             | B    | 0.8               | R                     | $\sqrt{3}$ | 1       | 1        | 0.5            | 0.5             | $\infty$          |
| 12                         | Probe positioning with respect to phantom shell | B    | 6.7               | R                     | $\sqrt{3}$ | 1       | 1        | 3.9            | 3.9             | $\infty$          |
| 13                         | Post-processing                                 | B    | 4.0               | R                     | $\sqrt{3}$ | 1       | 1        | 2.3            | 2.3             | $\infty$          |
| <b>Test sample related</b> |   |      |                   |                       |            |         |          |                |                 |                   |
| 14                         | Test sample positioning                         | A    | 3.3               | N                     | 1          | 1       | 1        | 3.3            | 3.3             | 71                |
| 15                         | Device holder uncertainty                       | A    | 3.4               | N                     | 1          | 1       | 1        | 3.4            | 3.4             | 5                 |
| 16                         | Drift of output power                           | B    | 5.0               | R                     | $\sqrt{3}$ | 1       | 1        | 2.9            | 2.9             | $\infty$          |
| <b>Phantom and set-up</b>  |   |      |                   |                       |            |         |          |                |                 |                   |
| 17                         | Phantom uncertainty                             | B    | 4.0               | R                     | $\sqrt{3}$ | 1       | 1        | 2.3            | 2.3             | $\infty$          |
| 18                         | Liquid conductivity (target)                    | B    | 5.0               | R                     | $\sqrt{3}$ | 0.64    | 0.43     | 1.8            | 1.2             | $\infty$          |
| 19                         | Liquid conductivity (meas.)                     | A    | 2.06              | N                     | 1          | 0.64    | 0.43     | 1.32           | 0.89            | 43                |
| 20                         | Liquid permittivity (target)                    | B    | 5.0               | R                     | $\sqrt{3}$ | 0.6     | 0.49     | 1.7            | 1.4             | $\infty$          |

|  |                             |  |     |   |   |     |      |      |      |     |
|--|-----------------------------|--|-----|---|---|-----|------|------|------|-----|
| 21   | Liquid permittivity (meas.) | A  | 1.6 | N | 1 | 0.6 | 0.49 | 1.0  | 0.8  | 521 |
| Combined standard uncertainty                      |                             | $u_c = \sqrt{\sum_{i=1}^{21} c_i^2 u_i^2}$ |     |   |   |     |      | 10.7 | 10.6 | 257 |
| Expanded uncertainty (confidence interval of 95 %) |                             | $u_e = 2u_c$                               |     |   |   |     |      | 21.4 | 21.1 |     |

### 16.3 Measurement Uncertainty for Fast SAR Tests (300MHz~3GHz)

| No.                        | Error Description                               | Type | Uncertainty value | Probably Distribution | Div.       | (Ci) 1g | (Ci) 10g | Std. Unc. (1g) | Std. Unc. (10g) | Degree of freedom |
|----------------------------|---|------|-------------------|-----------------------|------------|---------|----------|----------------|-----------------|-------------------|
| <b>Measurement system</b>  |   |      |                   |                       |            |         |          |                |                 |                   |
| 1                          | Probe calibration                               | B    | 6.0               | N                     | 1          | 1       | 1        | 6.0            | 6.0             | $\infty$          |
| 2                          | Isotropy  | B    | 4.7               | R                     | $\sqrt{3}$ | 0.7     | 0.7      | 1.9            | 1.9             | $\infty$          |
| 3                          | Boundary effect                                 | B    | 1.0               | R                     | $\sqrt{3}$ | 1       | 1        | 0.6            | 0.6             | $\infty$          |
| 4                          | Linearity                                       | B    | 4.7               | R                     | $\sqrt{3}$ | 1       | 1        | 2.7            | 2.7             | $\infty$          |
| 5                          | Detection limit                                 | B    | 1.0               | R                     | $\sqrt{3}$ | 1       | 1        | 0.6            | 0.6             | $\infty$          |
| 6                          | Readout electronics                             | B    | 0.3               | R                     | $\sqrt{3}$ | 1       | 1        | 0.3            | 0.3             | $\infty$          |
| 7                          | Response time                                   | B    | 0.8               | R                     | $\sqrt{3}$ | 1       | 1        | 0.5            | 0.5             | $\infty$          |
| 8                          | Integration time                                | B    | 2.6               | R                     | $\sqrt{3}$ | 1       | 1        | 1.5            | 1.5             | $\infty$          |
| 9                          | RF ambient conditions-noise                     | B    | 0                 | R                     | $\sqrt{3}$ | 1       | 1        | 0              | 0               | $\infty$          |
| 10                         | RFambient conditions-reflection                 | B    | 0                 | R                     | $\sqrt{3}$ | 1       | 1        | 0              | 0               | $\infty$          |
| 11                         | Probe positioned mech. Restrictions             | B    | 0.4               | R                     | $\sqrt{3}$ | 1       | 1        | 0.2            | 0.2             | $\infty$          |
| 12                         | Probe positioning with respect to phantom shell | B    | 2.9               | R                     | $\sqrt{3}$ | 1       | 1        | 1.7            | 1.7             | $\infty$          |
| 13                         | Post-processing                                 | B    | 1.0               | R                     | $\sqrt{3}$ | 1       | 1        | 0.6            | 0.6             | $\infty$          |
| 14                         | Fast SAR z-Approximation                        | B    | 7.0               | R                     | $\sqrt{3}$ | 1       | 1        | 4.0            | 4.0             | $\infty$          |
| <b>Test sample related</b> |   |      |                   |                       |            |         |          |                |                 |                   |
| 15                         | Test sample positioning                         | A    | 3.3               | N                     | 1          | 1       | 1        | 3.3            | 3.3             | 71                |
| 16                         | Device holder uncertainty                       | A    | 3.4               | N                     | 1          | 1       | 1        | 3.4            | 3.4             | 5                 |
| 17                         | Drift of output power                           | B    | 5.0               | R                     | $\sqrt{3}$ | 1       | 1        | 2.9            | 2.9             | $\infty$          |
| <b>Phantom and set-up</b>  |   |      |                   |                       |            |         |          |                |                 |                   |
| 18                         | Phantom uncertainty                             | B    | 4.0               | R                     | $\sqrt{3}$ | 1       | 1        | 2.3            | 2.3             | $\infty$          |
| 19                         | Liquid conductivity (target)                    | B    | 5.0               | R                     | $\sqrt{3}$ | 0.64    | 0.43     | 1.8            | 1.2             | $\infty$          |

|  |                              |  |      |   |            |      |      |      |      |          |
|--|------------------------------|--|------|---|------------|------|------|------|------|----------|
| 20   | Liquid conductivity (meas.)  | A  | 2.06 | N | 1          | 0.64 | 0.43 | 1.32 | 0.89 | 43       |
| 21   | Liquid permittivity (target) | B  | 5.0  | R | $\sqrt{3}$ | 0.6  | 0.49 | 1.7  | 1.4  | $\infty$ |
| 22   | Liquid permittivity (meas.)  | A  | 1.6  | N | 1          | 0.6  | 0.49 | 1.0  | 0.8  | 521      |
| Combined standard uncertainty                      |                              | $u_c = \sqrt{\sum_{i=1}^{22} c_i^2 u_i^2}$ |      |   |            |      |      | 10.4 | 10.3 | 257      |
| Expanded uncertainty (confidence interval of 95 %) |                              | $u_e = 2u_c$                               |      |   |            |      |      | 20.8 | 20.6 |          |

### 16.4 Measurement Uncertainty for Fast SAR Tests (3~6GHz)

| No.                        | Error Description                               | Type | Uncertainty value | Probably Distribution | Div.       | (Ci) 1g | (Ci) 10g | Std. Unc. (1g) | Std. Unc. (10g) | Degree of freedom |
|----------------------------|---|------|-------------------|-----------------------|------------|---------|----------|----------------|-----------------|-------------------|
| <b>Measurement system</b>  |   |      |                   |                       |            |         |          |                |                 |                   |
| 1                          | Probe calibration                               | B    | 6.55              | N                     | 1          | 1       | 1        | 6.55           | 6.55            | $\infty$          |
| 2                          | Isotropy  | B    | 4.7               | R                     | $\sqrt{3}$ | 0.7     | 0.7      | 1.9            | 1.9             | $\infty$          |
| 3                          | Boundary effect                                 | B    | 2.0               | R                     | $\sqrt{3}$ | 1       | 1        | 1.2            | 1.2             | $\infty$          |
| 4                          | Linearity                                       | B    | 4.7               | R                     | $\sqrt{3}$ | 1       | 1        | 2.7            | 2.7             | $\infty$          |
| 5                          | Detection limit                                 | B    | 1.0               | R                     | $\sqrt{3}$ | 1       | 1        | 0.6            | 0.6             | $\infty$          |
| 6                          | Readout electronics                             | B    | 0.3               | R                     | $\sqrt{3}$ | 1       | 1        | 0.3            | 0.3             | $\infty$          |
| 7                          | Response time                                   | B    | 0.8               | R                     | $\sqrt{3}$ | 1       | 1        | 0.5            | 0.5             | $\infty$          |
| 8                          | Integration time                                | B    | 2.6               | R                     | $\sqrt{3}$ | 1       | 1        | 1.5            | 1.5             | $\infty$          |
| 9                          | RF ambient conditions-noise                     | B    | 0                 | R                     | $\sqrt{3}$ | 1       | 1        | 0              | 0               | $\infty$          |
| 10                         | RFambient conditions-reflection                 | B    | 0                 | R                     | $\sqrt{3}$ | 1       | 1        | 0              | 0               | $\infty$          |
| 11                         | Probe positioned mech. Restrictions             | B    | 0.8               | R                     | $\sqrt{3}$ | 1       | 1        | 0.5            | 0.5             | $\infty$          |
| 12                         | Probe positioning with respect to phantom shell | B    | 6.7               | R                     | $\sqrt{3}$ | 1       | 1        | 3.9            | 3.9             | $\infty$          |
| 13                         | Post-processing                                 | B    | 1.0               | R                     | $\sqrt{3}$ | 1       | 1        | 0.6            | 0.6             | $\infty$          |
| 14                         | Fast SAR z-Approximation                        | B    | 14.0              | R                     | $\sqrt{3}$ | 1       | 1        | 8.1            | 8.1             | $\infty$          |
| <b>Test sample related</b> |   |      |                   |                       |            |         |          |                |                 |                   |
| 15                         | Test sample positioning                         | A    | 3.3               | N                     | 1          | 1       | 1        | 3.3            | 3.3             | 71                |
| 16                         | Device holder uncertainty                       | A    | 3.4               | N                     | 1          | 1       | 1        | 3.4            | 3.4             | 5                 |

|  |                              |  |      |   |            |      |      |      |      |          |
|--|------------------------------|--|------|---|------------|------|------|------|------|----------|
| 17   | Drift of output power        | B  | 5.0  | R | $\sqrt{3}$ | 1    | 1    | 2.9  | 2.9  | $\infty$ |
| <b>Phantom and set-up</b>                          |                              |  |      |   |            |      |      |      |      |          |
| 18   | Phantom uncertainty          | B  | 4.0  | R | $\sqrt{3}$ | 1    | 1    | 2.3  | 2.3  | $\infty$ |
| 19   | Liquid conductivity (target) | B  | 5.0  | R | $\sqrt{3}$ | 0.64 | 0.43 | 1.8  | 1.2  | $\infty$ |
| 20   | Liquid conductivity (meas.)  | A  | 2.06 | N | 1          | 0.64 | 0.43 | 1.32 | 0.89 | 43       |
| 21   | Liquid permittivity (target) | B  | 5.0  | R | $\sqrt{3}$ | 0.6  | 0.49 | 1.7  | 1.4  | $\infty$ |
| 22   | Liquid permittivity (meas.)  | A  | 1.6  | N | 1          | 0.6  | 0.49 | 1.0  | 0.8  | 521      |
| Combined standard uncertainty                      |                              | $u_c = \sqrt{\sum_{i=1}^{22} c_i^2 u_i^2}$ |      |   |            |      |      | 13.5 | 13.4 | 257      |
| Expanded uncertainty (confidence interval of 95 %) |                              | $u_e = 2u_c$                               |      |   |            |      |      | 27.0 | 26.8 |          |



## 17 MAIN TEST INSTRUMENTS

**Table 17.1: List of Main Instruments**

| No. | Name                  | Type          | Serial Number | Calibration Date         | Valid Period |
|-----|-----------------------|---------------|---------------|--------------------------|--------------|
| 01  | Network analyzer      | E5071C        | MY46110673    | December 25, 2023        | One year     |
| 02  | Power sensor          | NRP110T       | 101139        | January 13, 2024         | One year     |
| 03  | Power sensor          | NRP110T       | 101159        | January 13, 2024         | One year     |
| 04  | Signal Generator      | E4438C        | MY49071430    | December 25, 2023        | One year     |
| 05  | Dielectric Probe Kit  | 85070E        | Agilent       | No Calibration Requested |              |
| 06  | Directional Coupler   | 778D          | MY48220584    | No Calibration Requested |              |
| 07  | Amplifier             | 60S1G4        | 0331848       | No Calibration Requested |              |
| 08  | BTS                   | CMW500        | 159890        | January 9, 2024          | One year     |
| 09  | E-field Probe         | SPEAG EX3DV4  | 7825          | September 27, 2023       | One year     |
| 10  | DAE                   | SPEAG DAE4ip  | 1832          | September 27, 2023       | One year     |
| 11  | Dipole Validation Kit | SPEAG D750V3  | 1017          | July 9,2024              | One year     |
| 12  | Dipole Validation Kit | SPEAG D835V2  | 4d069         | July 9,2024              | One year     |
| 13  | Dipole Validation Kit | SPEAG D1800V2 | 2d145         | July 11,2024             | One year     |
| 14  | Dipole Validation Kit | SPEAG D1900V2 | 5d101         | July 8,2024              | One year     |
| 15  | Dipole Validation Kit | SPEAG D2450V2 | 853           | July 10,2024             | One year     |
| 16  | Dipole Validation Kit | SPEAG D2600V2 | 1012          | July 10,2024             | One year     |
| 17  | Dipole Validation Kit | SPEAG D5GHzV2 | 1060          | June 12,2024             | One year     |

\*\*\*END OF REPORT BODY\*\*\*



## **Appendixes**

- ANNEX A Graph Results**
- ANNEX B System Verification Results**
- ANNEX C SAR Measurement Setup**
- ANNEX D Position of the wireless device in relation to the phantom**
- ANNEX E Equivalent Media Recipes**
- ANNEX F System Validation**
- ANNEX G Probe Calibration Certificate**
- ANNEX H Dipole Calibration Certificate**
- ANNEX I SAR Sensor Triggering Data Summary**
- ANNEX J Accreditation Certificate**