TESTING
NVLAP LAB CODE 600118-0

# SAR TEST REPORT

## No. I21Z70218-SEM01

**For**

**SAMSUNG Electronics Co., Ltd.**

**Multi-band GSM/WCDMA/LTE/5GNR Phone with Bluetooth,WLAN**

**Model Name: SM-A226BR/DSN,SM-A226BR/N**

**with**

**Hardware Version: REV1.0**

**Software Version: A226BR.001**

**FCC ID: ZCASMA226BRN**

**Issued Date: 2021-7-30**

**Note:**

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

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S.Government.

**Test Laboratory:**

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# REPORT HISTORY

| Report Number | Revision | Issue Date | Description |
|---|---|---|---|
| I21Z70218-SEM01 | Rev.0 | 2021-7-1 | Initial creation of test report |
| I21Z70218-SEM01 | Rev.1 | 2021-7-6 | 1. Revise a typo of model information on page6.<br>2. Revise band information supported by the device on section4.1.<br>3. Revise probe convF in test plots on Page 137~141.<br>4. Revise the Medium used for the testing on page 169~170. |
| I21Z70218-SEM01 | Rev.2 | 2021-7-7 | 1. Revise tune up and scaled SAR of LTE B2/B5/B7-ANT0/B12/B26 /B41/B66-ANT1 on section14.1.<br>2. Revise conductive power of downlink LTE CA on page79. |
| I21Z70218-SEM01 | Rev.3 | 2021-7-30 | 1. Add relative standard of TCB Workshop October 2020: 5G and RF Exposure Policies on section 5.2. |

# TABLE OF CONTENT

# 1 Test Laboratory

## 1.1 Testing Location

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

## 1.2 Testing Environment

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

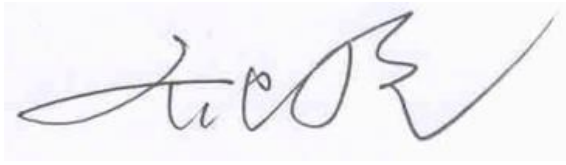
## 1.3 Project Data

| | |
|---|---|
| Project Leader: | Qi Dianyuan |
| Test Engineer: | Yao Juming |
| Testing Start Date: | June 17, 2021 |
| Testing End Date: | June 24, 2021 |

## 1.4 Signature

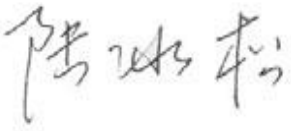
**Yao Juming**

**(Prepared this test report)**



**Qi Dianyuan**

**(Reviewed this test report)**



**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 SAMSUNG Electronics Co., Ltd. Multi-band GSM/WCDMA/LTE/5GNR Phone with Bluetooth, WLAN SM-A226BR/DSN,SM-A226BR/N are as follows:

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

| Technology Band | Head (Separation Distance 0mm) | Hotspot (Separation Distance 10mm) | Body-Worn (Separation Distance 15mm) | Phablet-10g (Separation Distance 0mm) | Equipment Class |
|---|---|---|---|---|---|
| GSM850 | **0.20** | **1.01** | / | / | PCE |
| GSM1900 | **0.18** | **1.18** | / | / | |
| WCDMA1900 | **0.47** | **0.89** | **0.61** | **3.60** | |
| WCDMA1700 | **0.36** | **0.67** | **0.62** | / | |
| WCDMA 850 | **0.29** | **0.56** | / | / | |
| LTE Band2 | **0.47** | **0.92** | **0.43** | **2.32** | |
| LTE Band5 | **0.21** | **0.35** | / | / | |
| LTE Band7-ANT0 | **0.19** | **0.87** | **0.53** | / | |
| LTE Band7-ANT4 | **0.50** | **0.51** | **0.29** | / | |
| LTE Band12 | **0.16** | **0.24** | / | / | |
| LTE Band26 | **0.22** | **0.52** | / | / | |
| LTE Band41 | **0.10** | **0.34** | / | / | |
| LTE Band66-ANT0 | **0.48** | **0.71** | **0.85** | / | |
| LTE Band66-ANT4 | **0.79** | **0.79** | **0.59** | / | |
| 5G NR n5 | **0.26** | **0.43** | / | / | |
| 5G NR n7 | **0.41** | **0.40** | **0.25** | / | |
| WLAN 2.4GHz | **0.29** | **0.34** | / | **1.62** | DTS |
| WLAN 5GHz | **0.46** | **0.41** | / | **0.43** | NII |

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 0/10/15 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:0.79 W/kg(1g)**

**Body:1.18 W/kg(1g).**

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**Table 2.2: The sum of SAR values for Main antenna + WiFi-2.4G**

| | Position | Main antenna | WiFi-2.4G | Sum |
|---|---|---|---|---|
| **Highest SAR value for Head** | Left head, Tilt (ENDC 66A-n5A) | 0.76 | 0.29 | **1.05** |
| **Highest SAR value for Body** | Rear 10mm (GSM1900) | 1.18 | 0.27 | **1.45** |

**Table 2.3: The sum of SAR values for Main antenna + WiFi-5G**

| | Position | Main antenna | WiFi-5G | Sum |
|---|---|---|---|---|
| **Highest SAR value for Head** | Right head, Tilt (ENDC 66A-n5A) | 0.94 | 0.29 | **1.23** |
| **Highest SAR value for Body** | Rear 10mm (GSM1900) | 1.18 | 0.12 | **1.30** |

**Table 2.4: The sum of reported SAR values for main antenna and BT**

| | Position | Main antenna | BT | Sum |
|---|---|---|---|---|
| **Maximum reported SAR value for Head** | Right head, Tilt (ENDC 66A-n5A) | 0.94 | <0.01 | **0.94** |
| **Maximum reported SAR value for Body** | Rear 10mm (GSM1900) | 1.18 | <0.01 | **1.18** |

According to the above tables, the highest sum of reported SAR values is **1.45 W/kg (1g)**. The detail for simultaneous transmission consideration is described in chapter 13.

# 3 Client Information

## 3.1 Applicant Information

| | |
|---|---|
| Company Name: | Samsung Electronics Co., Ltd. |
| Address/Post: | 19 Chapin Rd.,Building D Pine Brook, NJ 07058 |
| Contact Person: | Jenni Chun |
| Contact Email: | j1.chun@samsung.com |
| Telephone: | +1-201-937-4203 |

## 3.2 Manufacturer Information

| | |
|---|---|
| Company Name: | Samsung Electronics Co., Ltd. |
| Address/Post: | Samsung R5, Maetan dong 129, Samsung ro Youngtong gu, Suwon city 443 742, Korea |
| Contact Person: | Sunghoon Cho |
| Contact Email: | ggobi.cho@samsung.com |
| Telephone: | +82-10-2722-4159 |

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

## 4.1 About EUT

| | |
|---|---|
| Description: | Multi-band GSM/WCDMA/LTE/5GNR Phone with Bluetooth, WLAN |
| Model name: | SM-A226BR/DSN,SM-A226BR/N |
| Operating mode(s): | GSM850/900/1800/1900, WCDMA850/900/1700/1900/2100<br>LTE Band 1/2/3/4/5/7/8/12/17/20/26/28/38/40/41/66<br>BT, Wi-Fi(2.4G/5G),NR 5G |
| Tested Tx Frequency: | 824 – 849 MHz (GSM 850) |
| | 1850 – 1910 MHz (GSM 1900) |
| | 824 – 849 MHz (WCDMA 850 Band V) |
| | 1710-1755 MHz (WCDMA1700 Band IV) |
| | 1850 – 1910 MHz (WCDMA1900 Band II) |
| | 1850.7 – 1909.3 MHz (LTE Band 2) |
| | 824.7 – 848.3 MHz (LTE Band 5) |
| | 2502.5 – 2567.5 MHz (LTE Band 7) |
| | 699.7 – 715.3 MHz (LTE Band 12) |
| | 814.7–848.3 MHz (LTE Band 26) |
| | 2542.5 –2637.5 MHz (LTE Band 41) |
| | 1710.7 –1779.3 MHz (LTE Band 66) |
| | 824 – 849 MHz (n5) |
| | 2500-2570 MHz (n7) |
| | 2412 – 2462 MHz (Wi-Fi 2.4G) |
| | 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) |
| | 2400 – 2483.5 MHz (Bluetooth) |
| 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 | 70218UT13a | REV1.0 | A226BR.001 |
| EUT2 | 70218UT14a | REV1.0 | A226BR.001 |
| EUT3 | 70218UT15a | REV1.0 | A226BR.001 |
| EUT4 | 70218UT16a | REV1.0 | A226BR.001 |
| EUT5 | 70218UT17a | REV1.0 | A226BR.001 |
| EUT6 | 70218UT18a | REV1.0 | A226BR.001 |
| EUT7 | 70218UT23a | REV1.0 | A226BR.001 |
| EUT8 | 70218UT09a | REV1.0 | A226BR.001 |
| EUT9 | 70218UT20a | REV1.0 | A226BR.001 |
| EUT10 | 70218UT22a | REV1.0 | A226BR.001 |

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

**Note:** It is performed to test SAR with the EUT1-7 and conducted power with the EUT8-10

## 4.3 Internal Identification of AE used during the test

| AE ID* | Description | Model | SN | Manufacturer |
|---|---|---|---|---|
| AE1 | Battery | SCUD-WT-W1 | / | SCUD(Fujian) Electronic Co.,Ltd. |
| AE2 | Headset | EHS61ASFWE | / | WATA ELECTRONICS CO., LTD |
| AE3 | Headset | EHS61ASFWE | / | Dongguan Yongbao Electronics Co. , Ltd. |

*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 D01SAR measurement 100 MHz to 6 GHz v01r04:** SAR Measurement Requirements for 100 MHz to 6 GHz.

**KDB865664 D02RF Exposure Reporting v01r02:** RF Exposure Compliance Reporting and Documentation Considerations

**TCB Workshop Nov 2017:** RF Exposure Procedures (Carrier Aggregation SAR)

**TCB Workshop Nov 2019:** RF Exposure Policy Updates (5G NR NSA Sub 6G SAR)

**TCB Workshop October 2020:** 5G and RF Exposure Policies (5G NR SAR)

# 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 head 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**

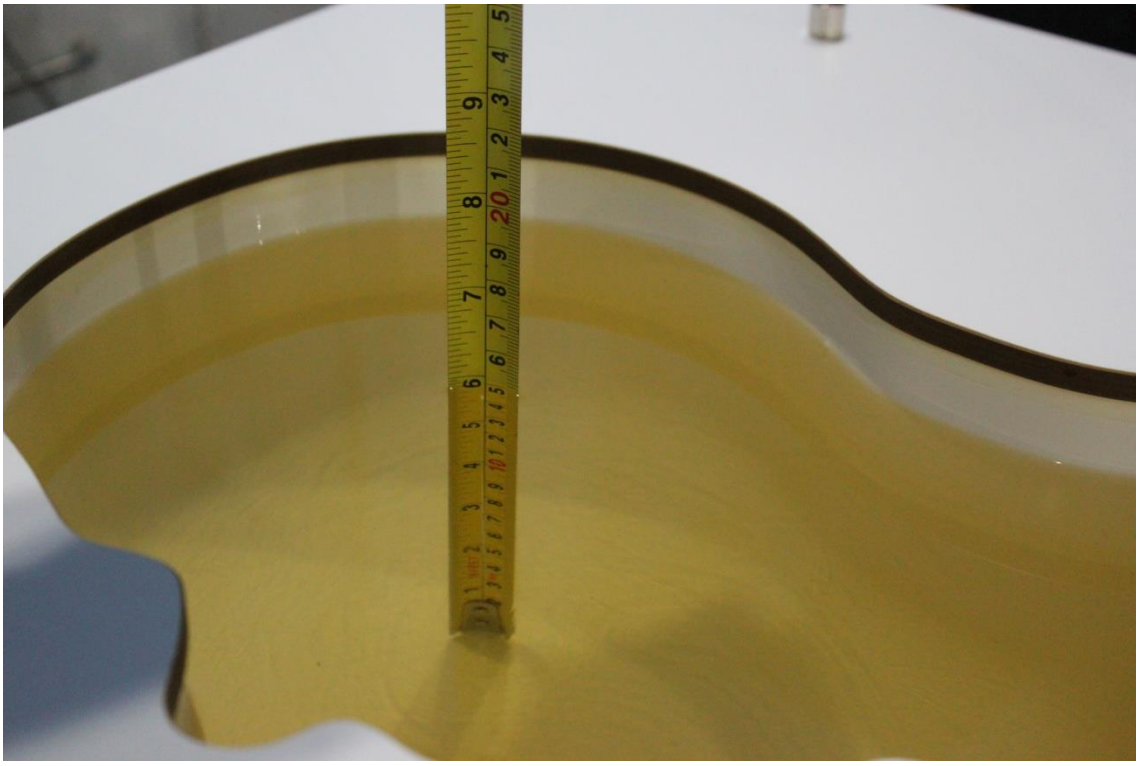
| Frequency(MHz) | Liquid Type | Conductivity(σ) | ± 5% Range | Permittivity(ε) | ± 5% Range |
|---|---|---|---|---|---|
| 750 | Head | 0.89 | 0.85～0.93 | 41.94 | 39.8～44.0 |
| 835 | Head | 0.90 | 0.86～0.95 | 41.5 | 39.4～43.6 |
| 1900 | Head | 1.40 | 1.33～1.47 | 40.0 | 38.0～42.0 |
| 2450 | Head | 1.67 | 1.59～1.75 | 39.47 | 37.5～41.4 |
| 2600 | Head | 1.96 | 1.86～2.06 | 39.01 | 37.1～41.0 |
| 5250 | Head | 4.66 | 4.43～4.89 | 35.99 | 34.19～37.79 |
| 5600 | Head | 5.07 | 4.82～5.32 | 35.53 | 33.75～37.31 |
| 5750 | Head | 5.27 | 5.01～5.53 | 35.3 | 33.5～37.1 |

## 7.2 Dielectric Performance

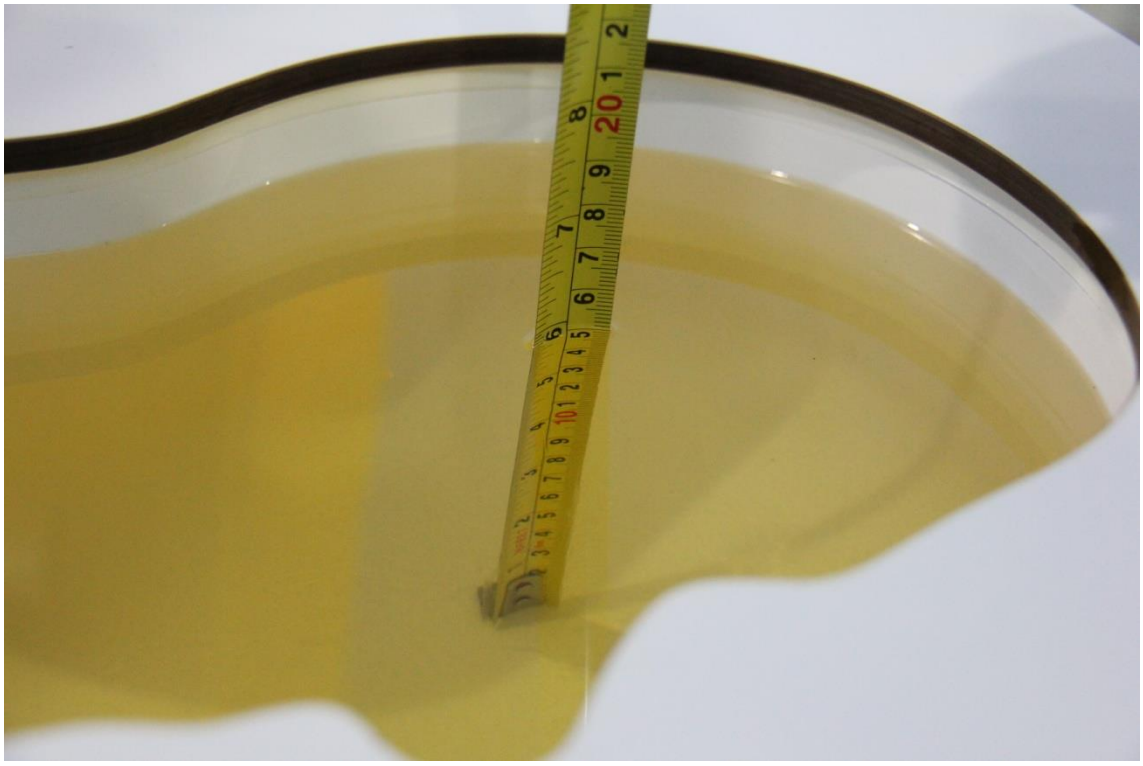
**Table 7.2: Dielectric Performance of Tissue Simulating Liquid**

| Measurement Date (yyyy-mm-dd) | Type | Frequency | Permittivity ε | Drift (%) | Conductivity σ (S/m) | Drift (%) |
|---|---|---|---|---|---|---|
| 2021/6/17 | Head | 750 MHz | 42.5 | 1.34 | 0.89 | 0.00 |
| 2021/6/18 | Head | 835 MHz | 40.69 | -1.95 | 0.888 | -1.33 |
| 2021/6/19 | Head | 1900 MHz | 39.38 | -1.55 | 1.411 | 0.79 |
| 2021/6/20 | Head | 2450 MHz | 39.83 | 1.61 | 1.818 | 1.00 |
| 2021/6/21 | Head | 2600 MHz | 39.01 | 0.00 | 1.956 | -0.20 |
| 2021/6/22 | Head | 5250 MHz | 36.07 | 0.39 | 4.729 | 0.40 |
| 2021/6/23 | Head | 5600 MHz | 35.75 | 0.62 | 5.153 | 1.64 |
| 2021/6/24 | Head | 5750 MHz | 35.73 | 1.05 | 5.201 | -0.36 |

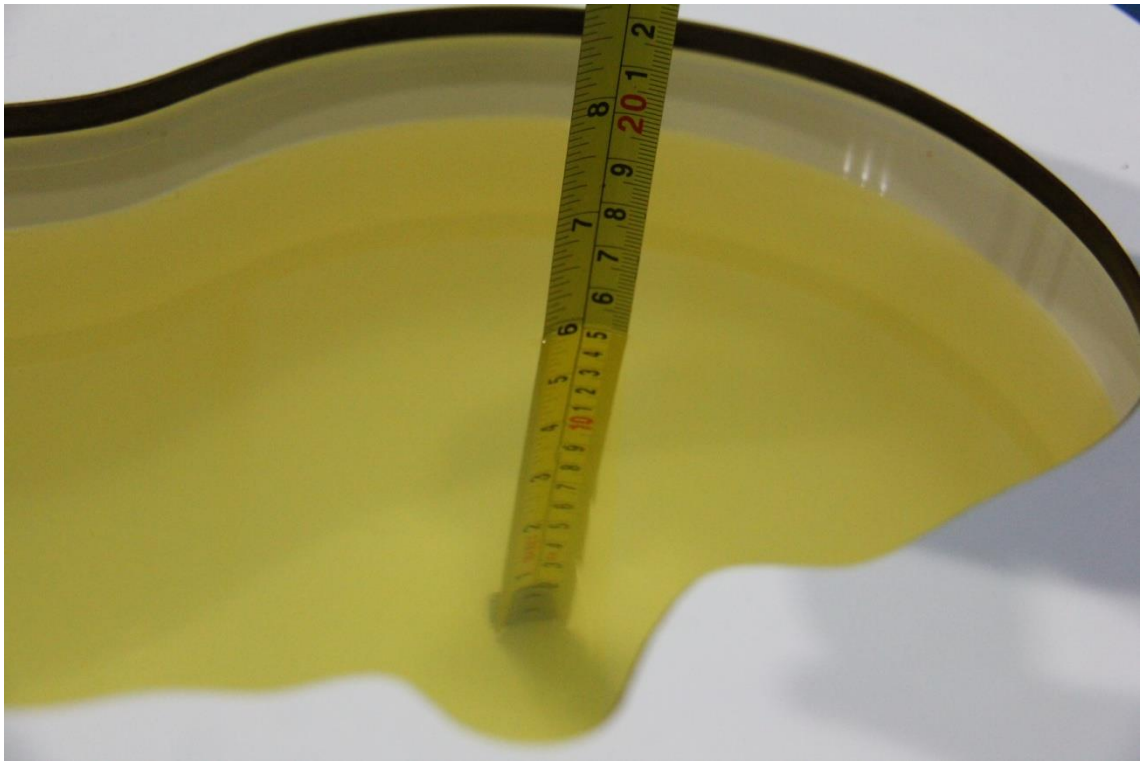
Note: The liquid temperature is 22.0℃



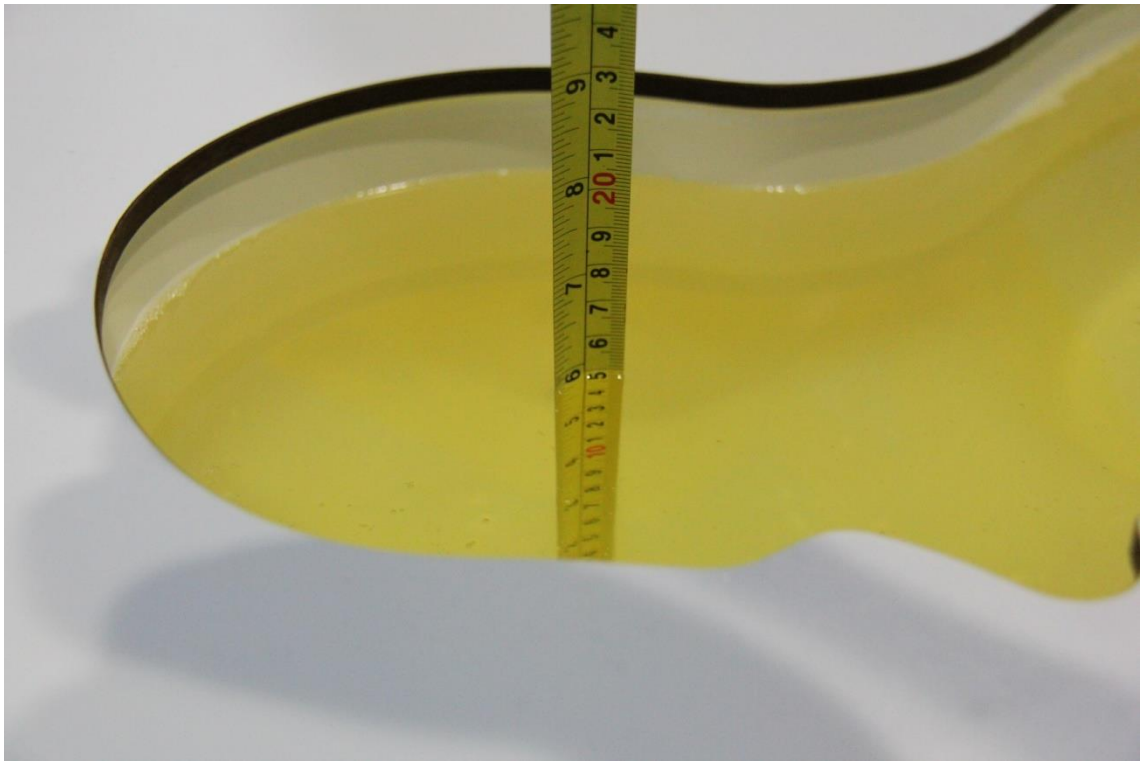
**Picture 7-1 Liquid depth in the Head Phantom (750MHz)**



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

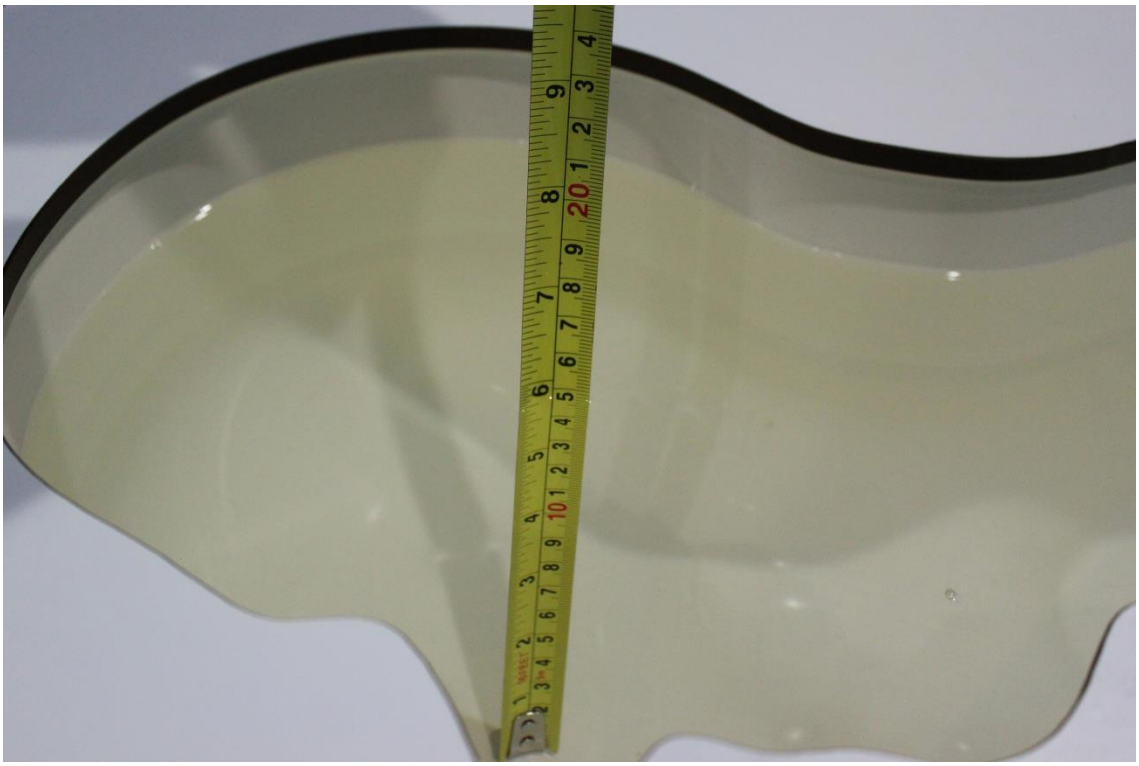


**Picture 7-3 Liquid depth in the Head Phantom (1900 MHz)**



**Picture 7-4 Liquid depth in the Head Phantom (2450MHz)**

**Picture 7-5 Liquid depth in the Head Phantom (2600 MHz)**

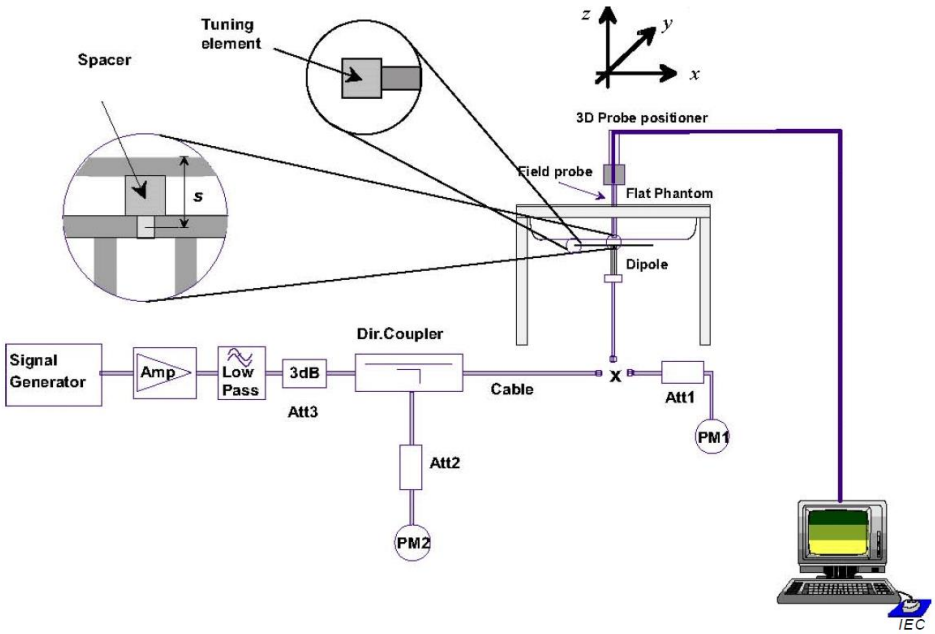


**Picture 7-7 Liquid depth in the Head Phantom (5GHz)**

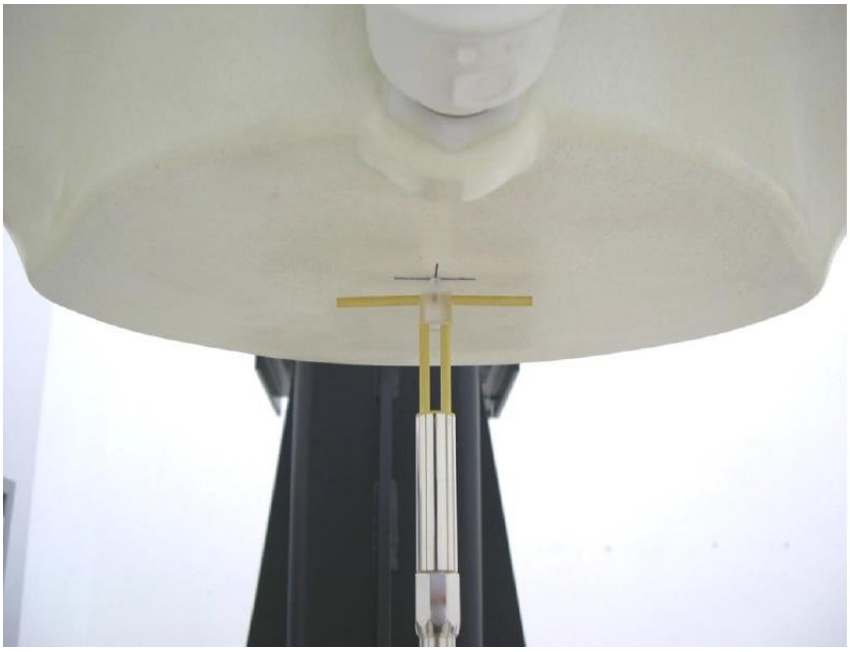
# 8 System verification

## 8.1 System Setup

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




**Picture 8.1 System Setup for System Evaluation**



**Picture 8.2 Photo of Dipole Setup**

## 8.2 System Verification

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

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 (yyyy-mm-dd) | Frequency | Target value (W/kg) | | Measured value(W/kg) | | Deviation | |
|---|---|---|---|---|---|---|---|
| | | 10 g Average | 1 g Average | 10 g Average | 1 g Average | 10 g Average | 1 g Average |
| 2021/6/17 | 750 MHz | 5.53 | 8.47 | 5.44 | 8.64 | -1.63% | 2.01% |
| 2021/6/18 | 835 MHz | 6.25 | 9.60 | 6.2 | 9.72 | -0.80% | 1.25% |
| 2021/6/19 | 1900 MHz | 19.1 | 36.5 | 19.48 | 36.36 | 1.99% | -0.38% |
| 2021/6/20 | 2450 MHz | 20.6 | 39.6 | 20.52 | 39.96 | -0.39% | 0.91% |
| 2021/6/21 | 2600 MHz | 24.5 | 52.5 | 24.8 | 52 | 1.22% | -0.95% |
| 2021/6/22 | 5250 MHz | 25.3 | 57.0 | 25.36 | 56.8 | 0.24% | -0.35% |
| 2021/6/23 | 5600 MHz | 22.9 | 80.5 | 23.2 | 80.0 | 1.14% | -0.62% |
| 2021/6/24 | 5750 MHz | 23.6 | 83.3 | 23.5 | 83.5 | -0.34% | 0.26% |

# 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.

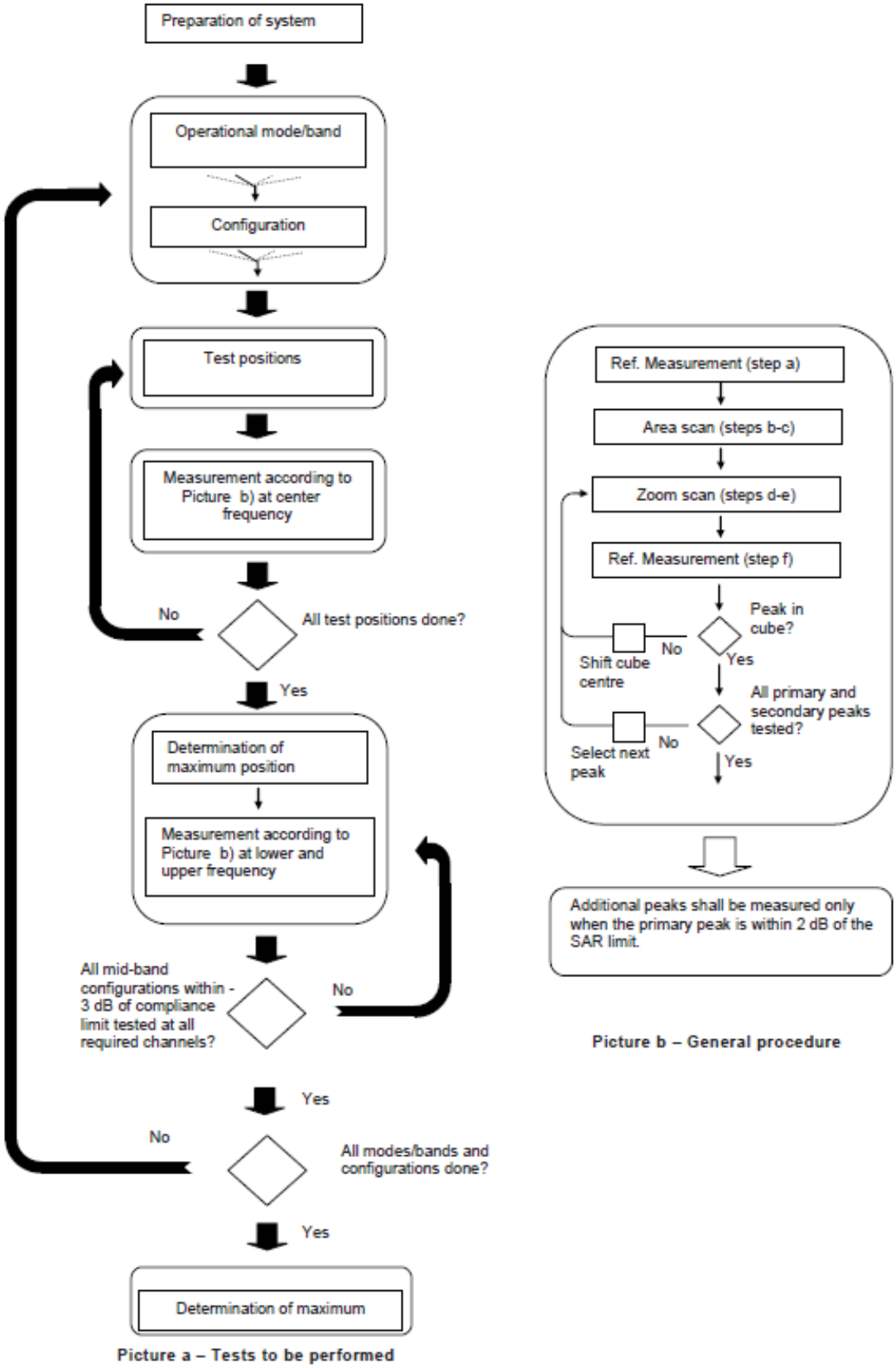
**Step 1**: The tests described in 9.2 shall be performed at the channel that is closest to the centre of the transmit frequency band ( $f_c$ ) for:

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 within3 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 9.1Block 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.

<table>
<tr><td colspan="3"></td><td>≤ 3 GHz</td><td>> 3 GHz</td></tr>
<tr><td colspan="3">Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface</td><td>5 ± 1 mm</td><td>½·δ·ln(2) ± 0.5 mm</td></tr>
<tr><td colspan="3">Maximum probe angle from probe axis to phantom surface normal at the measurement location</td><td>30° ± 1°</td><td>20° ± 1°</td></tr>
<tr><td colspan="3" rowspan="2">Maximum area scan spatial resolution: $\Delta x_{Area}$, $\Delta y_{Area}$</td><td>≤ 2 GHz: ≤ 15 mm<br>2 – 3 GHz: ≤ 12 mm</td><td>3 – 4 GHz: ≤ 12 mm<br>4 – 6 GHz: ≤ 10 mm</td></tr>
<tr><td colspan="2">When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.</td></tr>
<tr><td colspan="3">Maximum zoom scan spatial resolution: $\Delta x_{Zoom}$, $\Delta y_{Zoom}$</td><td>≤ 2 GHz: ≤ 8 mm<br>2 – 3 GHz: ≤ 5 mm*</td><td>3 – 4 GHz: ≤ 5 mm*<br>4 – 6 GHz: ≤ 4 mm*</td></tr>
<tr><td rowspan="3">Maximum zoom scan spatial resolution, normal to phantom surface</td><td colspan="2">uniform grid: $\Delta z_{Zoom}(n)$</td><td>≤ 5 mm</td><td>3 – 4 GHz: ≤ 4 mm<br>4 – 5 GHz: ≤ 3 mm<br>5 – 6 GHz: ≤ 2 mm</td></tr>
<tr><td rowspan="2">graded grid</td><td>$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface</td><td>≤ 4 mm</td><td>3 – 4 GHz: ≤ 3 mm<br>4 – 5 GHz: ≤ 2.5 mm<br>5 – 6 GHz: ≤ 2 mm</td></tr>
<tr><td>$\Delta z_{Zoom}(n>1)$: between subsequent points</td><td colspan="2">≤ 1.5·$\Delta z_{Zoom}(n-1)$</td></tr>
<tr><td>Minimum zoom scan volume</td><td colspan="2">x, y, z</td><td>≥ 30 mm</td><td>3 – 4 GHz: ≥ 28 mm<br>4 – 5 GHz: ≥ 25 mm<br>5 – 6 GHz: ≥ 22 mm</td></tr>
<tr><td colspan="5">Note: δ 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 <u>reported</u> SAR from the area scan based 1-g SAR estimation procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 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.</td></tr>
</table>

## 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 & $DPDCH_n$), 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 & Rchwarz 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 ≤ 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 ≤ 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.

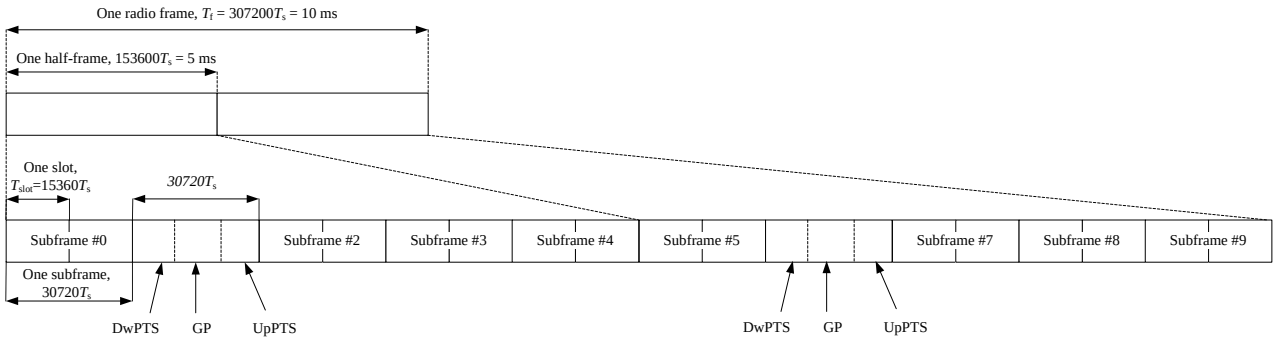



**Figure 9.2: Frame structure type 2 (for 5 ms switch-point periodicity)**

**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 | $26336 \cdot T_s$ | | | $7680 \cdot T_s$ | $4384 \cdot T_s$ | $5120 \cdot T_s$ |
| 5 | $6592 \cdot T_s$ | $4384 \cdot T_s$ | $5120 \cdot T_s$ | $20480 \cdot T_s$ | | |
| 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:

Duty factor = uplink frame*6+UpPTS*2/one frame length

= (30720.$T_s$ * 6+5120. $T_s$*2)/307200.$T_s$

= 0.633

## 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, DASY4 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 section14 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 ≤ 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 55wireless handsets. For the sample size studied, the root-mean-squared errors of the algorithm mare 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

**Table11: Summary of Receiver detection mechanism**

| Antenna | Receiver on (head scenario) | Receiver off + Hotspot off (Body scenario) | Receiver off + Hotspot on (Hotspot scenario) |
|---|---|---|---|
| Main Antenna/ Wifi Antenna | Power Level A1 | Power Level B1 | Power Level C1 (Power Level C2, only for LTE B66 ANT0-ENDC) |

For WWAN, When the phone hotspot worked, then power reduction will be implemented immediately at WCDMA B2/B4 and LTE B2/B7(ANT0)/ B7(ANT4)/B66(ANT0)/B66(ANT4) and 5G NR n7. When SAR sensor triggered, then power reduction will be implemented immediately at LTE B7/B66(ANT0)/B66(ANT4) and 5G NR n7.

For WWAN, when the sensor triggered, then power reduction will be implemented immediately at LTE B7(ANT0)/ B7(ANT4)/B66(ANT0)/B66(ANT4) and 5G NR n7. The detail information of sensor is on ANNEX I.

For WiFi, when the phone is in head mode and receiver off, then power reduction will be implemented immediately at WiFi2.4G/WiFi5G.

## 11.1 GSM Measurement result

During the process of testing, the EUT was controlled via Agilent Digital Radio Communication tester (E5515C) to ensure the maximum power transmission and proper modulation. This result contains conducted output power for the EUT. In all cases, the measured peak output power should be greater and within 5% than EMI measurement.

**Table 11.1-1: The conducted power measurement results-Power Level A1/B1/C1**

| GSM 850 | Measured Power (dBm) | | | Tune up | calculation | Averaged Power (dBm) | | |
|---|---|---|---|---|---|---|---|---|
| Speech (GMSK) | 251 | 190 | 128 | | | 251 | 190 | 128 |
| 1 Txslot | 31.71 | 31.85 | 31.77 | 33.50 | / | / | / | / |
| GSM 850 | Measured Power (dBm) | | | | calculation | Averaged Power (dBm) | | |
| GPRS (GMSK) | 251 | 190 | 128 | | | 251 | 190 | 128 |
| 1 Txslot | 31.57 | 31.74 | 31.63 | 33.50 | -9.03 | 22.54 | 22.71 | 22.60 |
| 2 Txslots | 30.85 | 30.83 | 30.87 | 32.00 | -6.02 | 24.83 | 24.81 | 24.85 |
| 3 Txslots | 29.11 | 29.20 | 29.03 | 31.00 | -4.26 | 24.85 | 24.94 | 24.77 |
| **4 Txslots** | 28.00 | 28.07 | 28.02 | 30.00 | -3.01 | 24.99 | 25.06 | 25.01 |
| GSM 850 | Measured Power (dBm) | | | | calculation | Averaged Power (dBm) | | |
| EGPRS (GMSK) | 251 | 190 | 128 | | | 251 | 190 | 128 |
| 1 Txslot | 31.61 | 31.72 | 31.57 | 33.50 | -9.03 | 22.58 | 22.69 | 22.54 |
| 2 Txslots | 30.88 | 30.97 | 30.81 | 32.00 | -6.02 | 24.86 | 24.95 | 24.79 |
| 3 Txslots | 29.11 | 29.15 | 29.04 | 31.00 | -4.26 | 24.85 | 24.89 | 24.78 |
| **4 Txslots** | 28.02 | 28.05 | 28.03 | 30.00 | -3.01 | 25.01 | 25.04 | 25.02 |
| GSM 850 | Measured Power (dBm) | | | | calculation | Averaged Power (dBm) | | |
| EGPRS (8PSK) | 251 | 190 | 128 | | | 251 | 190 | 128 |
| 1 Txslot | 26.80 | 26.87 | 26.81 | 27.00 | -9.03 | 17.77 | 17.84 | 17.78 |
| 2 Txslots | 25.92 | 25.96 | 25.96 | 26.00 | -6.02 | 19.90 | 19.94 | 19.94 |
| 3Txslots | 23.68 | 23.83 | 23.79 | 25.00 | -4.26 | 19.42 | 19.57 | 19.53 |
| 4 Txslots | 22.44 | 22.56 | 22.60 | 24.00 | -3.01 | 19.43 | 19.55 | 19.59 |
| PCS1900 | Measured Power (dBm) | | | Tune up | calculation | Averaged Power (dBm) | | |
| Speech (GMSK) | 810 | 661 | 512 | | | 810 | 661 | 512 |
| 1 Txslot | 28.35 | 28.41 | 28.37 | 30.00 | / | / | / | / |
| PCS1900 | Measured Power (dBm) | | | | calculation | Averaged Power (dBm) | | |
| GPRS (GMSK) | 810 | 661 | 512 | | | 810 | 661 | 512 |
| 1 Txslot | 28.38 | 28.41 | 28.52 | 30.00 | -9.03 | 19.35 | 19.38 | 19.49 |
| 2 Txslots | 26.94 | 26.95 | 27.10 | 29.00 | -6.02 | 20.92 | 20.93 | 21.08 |
| 3 Txslots | 26.03 | 26.11 | 26.16 | 28.00 | -4.26 | 21.77 | 21.85 | 21.90 |
| **4 Txslots** | 25.22 | 25.26 | 25.28 | 27.00 | -3.01 | 22.21 | 22.25 | 22.27 |
| PCS1900 | Measured Power (dBm) | | | | calculation | Averaged Power (dBm) | | |
| EGPRS (GMSK) | 810 | 661 | 512 | | | 810 | 661 | 512 |
| 1 Txslot | 28.45 | 28.44 | 28.57 | 30.00 | -9.03 | 19.42 | 19.41 | 19.54 |
| 2 Txslots | 27.14 | 27.03 | 27.18 | 29.00 | -6.02 | 21.12 | 21.01 | 21.16 |
| 3 Txslots | 26.13 | 26.14 | 26.21 | 28.00 | -4.26 | 21.87 | 21.88 | 21.95 |

| **4 Txslots** | 25.32 | 25.31 | 25.37 | 27.00 | -3.01 | 22.31 | 22.30 | 22.36 |
|---|---|---|---|---|---|---|---|---|
| PCS1900 | Measured Power (dBm) | | | | calculation | Averaged Power (dBm) | | |
| EGPRS (8PSK) | 810 | 661 | 512 | | | 810 | 661 | 512 |
| 1 Txslot | 25.17 | 25.20 | 25.42 | 26.00 | -9.03 | 16.14 | 16.17 | 16.39 |
| 2 Txslots | 23.19 | 23.13 | 23.54 | 25.00 | -6.02 | 17.17 | 17.11 | 17.52 |
| 3Txslots | 22.36 | 22.15 | 22.85 | 24.00 | -4.26 | 18.10 | 17.89 | 18.59 |
| 4 Txslots | 21.08 | 21.17 | 21.25 | 23.00 | -3.01 | 18.07 | 18.16 | 18.24 |

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

**According to the conducted power as above, the body measurements are performed with 4Txslots for GSM850 and GSM1900.**

## 11.2 WCDMA Measurement result

**Table 11.2-1: The conducted Power for WCDMA B5-Power Level A1/B1/C1**

| | FDDV result (dBm) | | | |
|---|---|---|---|---|
| WCDMA850 | 4233/4458 | 4183/4408 | 4132/4357 | Tune up |
| | (846.6MHz) | (836.6MHz) | (826.4MHz) | |
| | 23.63 | 23.75 | 23.86 | 25.00 |
| HSUPA | 20.51 | 20.69 | 20.84 | 22.30 |
| | 20.31 | 20.33 | 20.36 | 22.30 |
| | 21.35 | 21.40 | 21.38 | 23.30 |
| | 19.85 | 19.81 | 19.89 | 21.80 |
| | 21.33 | 21.32 | 21.37 | 23.30 |
| DC-HSDPA | 22.18 | 22.21 | 22.36 | 22.80 |
| | 22.06 | 22.10 | 22.37 | 22.80 |
| | 21.67 | 21.75 | 21.88 | 22.30 |
| | 21.65 | 21.74 | 21.87 | 22.30 |

**Table 11.2-2: The conducted Power for WCDMA B2/B4-Power Level A1/B1**

| | FDDII result (dBm) | | | |
|---|---|---|---|---|
| WCDMA1900 | 9538/9938 | 9400/9800 | 9262/9662 | Tune up |
| | (1907.6MHz) | (1880MHz) | (1852.4MHz) | |
| | 23.88 | 23.90 | 23.91 | 24.50 |
| HSUPA | 20.82 | 20.77 | 20.79 | 22.60 |
| | 20.62 | 20.63 | 20.66 | 22.60 |
| | 20.61 | 20.64 | 20.65 | 22.60 |
| | 20.02 | 19.99 | 20.00 | 21.80 |
| | 21.31 | 21.30 | 21.32 | 23.30 |
| DC-HSDPA | 22.43 | 22.37 | 22.44 | 22.80 |
| | 22.23 | 22.23 | 22.44 | 22.80 |
| | 21.94 | 21.89 | 21.93 | 22.30 |
| | 21.91 | 21.87 | 21.88 | 22.30 |

| WCDMA1700 | FDDIV result (dBm) | | | Tune up |
|---|---|---|---|---|
| | 1513/1738 | 1412/1637 | 1312/1537 | |
| | (1752.6MHz) | (1732.4MHz) | (1712.4MHz) | |
| | 23.79 | 23.77 | 23.72 | 24.50 |
| HSUPA | 21.17 | 21.16 | 21.18 | 22.30 |
| | 20.66 | 20.64 | 20.65 | 22.30 |
| | 21.33 | 21.35 | 21.31 | 23.30 |
| | 20.25 | 20.21 | 20.18 | 21.80 |
| | 21.53 | 21.50 | 21.51 | 23.30 |
| DC-HSDPA | 22.57 | 22.61 | 22.59 | 23.30 |
| | 22.52 | 22.42 | 22.44 | 23.30 |
| | 22.10 | 22.09 | 22.11 | 23.30 |
| | 22.07 | 22.05 | 22.07 | 23.30 |

**Table 11.2-3: The conducted Power for WCDMA B2/B4-Power Level C1**

| WCDMA1900 | FDDII result (dBm) | | | Tune up |
|---|---|---|---|---|
| | 9538/9938 | 9400/9800 | 9262/9662 | |
| | (1907.6MHz) | (1880MHz) | (1852.4MHz) | |
| | 22.11 | 22.06 | 22.16 | 22.50 |
| HSUPA | 19.90 | 19.91 | 19.93 | 21.80 |
| | 19.43 | 19.42 | 19.43 | 21.30 |
| | 19.52 | 19.46 | 19.46 | 21.30 |
| | 19.00 | 18.96 | 18.98 | 20.80 |
| | 20.44 | 20.41 | 20.45 | 22.30 |
| DC-HSDPA | 21.35 | 21.36 | 21.55 | 23.30 |
| | 21.26 | 21.22 | 21.45 | 23.30 |
| | 21.01 | 20.99 | 21.01 | 22.80 |
| | 20.98 | 20.97 | 20.94 | 22.80 |

| WCDMA1700 | FDDIV result (dBm) | | | Tune up |
|---|---|---|---|---|
| | 1513/1738 | 1412/1637 | 1312/1537 | |
| | (1752.6MHz) | (1732.4MHz) | (1712.4MHz) | |
| | 22.22 | 22.17 | 22.14 | 22.50 |
| HSUPA | 19.96 | 19.91 | 19.94 | 21.80 |
| | 19.46 | 19.40 | 19.43 | 21.30 |
| | 19.51 | 16.45 | 19.44 | 21.30 |
| | 18.99 | 18.97 | 18.96 | 20.80 |
| | 20.45 | 20.45 | 20.40 | 22.30 |
| DC-HSDPA | 21.45 | 21.50 | 21.51 | 23.30 |
| | 21.36 | 21.34 | 21.25 | 23.30 |
| | 20.94 | 21.00 | 21.00 | 22.80 |
| | 20.91 | 20.95 | 20.96 | 22.80 |

## 11.3 LTE Measurement result

**Maximum Target Power for Production Unit – Power Level A1/B1/C1**

| Band | Tune up (dBm) | | |
|---|---|---|---|
| | Receiver on (head scenario) | Receiver off + Hotspot off (Body scenario) | Receiver off + Hotspot on (Hotspot scenario) |
| | Level A1 | Level B1 | Level C1 |
| Band2 | 24.5 | 24.5 | 22.5 |
| Band 5 | 24.5 | 24.5 | 24.5 |
| Band 7-ANT0 | 24.5 | 24.5 | 21 |
| Band 7-ANT4 | 16.5 | 24.5 | 20.5 |
| Band 12 | 24.5 | 24.5 | 24.5 |
| Band 26 | 24.5 | 24.5 | 24.5 |
| Band 41 | 24.5 | 24.5 | 24.5 |
| Band 66-ANT0 | 24.5 | 24.5 | 22.5(20 for C2) |
| Band 66-ANT4 | 17.5 | 24.5 | 21.5 |

MPR condition (1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz)-Normal power

| RB Size | Mod. | MPR | MPR (1.4MHz case) |
|---|---|---|---|
| 1 | QPSK | 0 | 0 |
| 50% | QPSK | 1 | 0 |
| 100% | QPSK | 1 | 1 |
| 1 | 16-QAM | 1 | 1 |
| 50% | 16-QAM | 2 | 1 |
| 100% | 16-QAM | 2 | 2 |

*MPRTolerance:±0.5dB

MPR condition (1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz)-Low power

| RB Size | Mod. | MPR | MPR (1.4MHz case) |
|---|---|---|---|
| 1 | QPSK | 0 | 0 |
| 50% | QPSK | 0 | 0 |
| 100% | QPSK | 0 | 0 |
| 1 | 16-QAM | 0 | 0 |
| 50% | 16-QAM | 0 | 0 |
| 100% | 16-QAM | 0 | 0 |

*MPRTolerance:±0.5dB

| LTE Band2-Power Level A1/B1 | | | | | |
|---|---|---|---|---|---|
| **BANDWIDTH** | **Number of RBs** | **Frequency** | **QPSK** | **16QAM** | **64QAM** |
| 1.4MHz | 1RB-High (5) | 1909.3 (19193) | 24.20 | 23.19 | 22.34 |
| | | 1880 (18900) | 24.03 | 23.14 | 22.26 |
| | | 1850.7 (18607) | 24.08 | 23.21 | 22.26 |
| | 1RB-Middle (3) | 1909.3 (19193) | 24.15 | 23.33 | 22.35 |
| | | 1880 (18900) | 24.09 | 23.17 | 22.22 |
| | | 1850.7 (18607) | 24.11 | 23.15 | 22.28 |
| | 1RB-Low (0) | 1909.3 (19193) | 24.18 | 23.22 | 22.36 |
| | | 1880 (18900) | 24.06 | 23.18 | 22.29 |
| | | 1850.7 (18607) | 24.13 | 23.21 | 22.25 |
| | 3RB-High (3) | 1909.3 (19193) | 24.19 | 23.21 | 22.28 |
| | | 1880 (18900) | 24.01 | 22.98 | 22.20 |
| | | 1850.7 (18607) | 24.08 | 23.14 | 22.24 |
| | 3RB-Middle (1) | 1909.3 (19193) | 24.23 | 23.27 | 22.25 |
| | | 1880 (18900) | 24.11 | 23.01 | 22.22 |
| | | 1850.7 (18607) | 24.12 | 23.10 | 22.23 |
| | 3RB-Low (0) | 1909.3 (19193) | 24.20 | 23.21 | 22.30 |
| | | 1880 (18900) | 24.07 | 23.04 | 22.23 |
| | | 1850.7 (18607) | 24.16 | 23.16 | 22.31 |
| | 6RB (0) | 1909.3 (19193) | 23.19 | 22.27 | 21.21 |
| | | 1880 (18900) | 23.08 | 22.21 | 21.12 |
| | | 1850.7 (18607) | 23.07 | 22.26 | 21.15 |
| 3MHz | 1RB-High (14) | 1908.5 (19185) | 24.22 | 23.23 | 22.36 |
| | | 1880 (18900) | 24.04 | 23.11 | 22.25 |
| | | 1851.5 (18615) | 24.14 | 23.29 | 22.32 |
| | 1RB-Middle (7) | 1908.5 (19185) | 24.21 | 23.28 | 22.33 |
| | | 1880 (18900) | 24.11 | 23.24 | 22.29 |
| | | 1851.5 (18615) | 24.16 | 23.27 | 22.31 |
| | 1RB-Low (0) | 1908.5 (19185) | 24.13 | 23.17 | 22.28 |
| | | 1880 (18900) | 24.08 | 23.16 | 22.31 |
| | | 1851.5 (18615) | 24.16 | 23.20 | 22.25 |
| | 8RB-High (7) | 1908.5 (19185) | 23.15 | 22.25 | 21.25 |
| | | 1880 (18900) | 22.99 | 22.15 | 21.15 |
| | | 1851.5 (18615) | 23.06 | 22.25 | 21.21 |
| | 8RB-Middle (4) | 1908.5 (19185) | 23.09 | 22.33 | 21.24 |
| | | 1880 (18900) | 22.98 | 22.19 | 21.11 |
| | | 1851.5 (18615) | 23.06 | 22.22 | 21.18 |
| | 8RB-Low (0) | 1908.5 (19185) | 23.14 | 22.29 | 21.22 |
| | | 1880 (18900) | 23.03 | 22.23 | 21.20 |
| | | 1851.5 (18615) | 23.04 | 22.22 | 21.18 |
| | 15RB (0) | 1908.5 (19185) | 23.14 | 22.28 | 21.19 |
| | | 1880 (18900) | 23.00 | 22.17 | 21.08 |
| | | 1851.5 (18615) | 23.07 | 22.23 | 21.14 |

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| 5MHz | 1RB-High (24) | 1907.5 (19175) | 24.14 | 23.31 | 22.31 |
| | | 1880 (18900) | 24.04 | 23.22 | 22.32 |
| | | 1852.5 (18625) | 24.14 | 23.27 | 22.32 |
| | 1RB-Middle (12) | 1907.5 (19175) | 24.06 | 23.17 | 22.31 |
| | | 1880 (18900) | 24.12 | 23.19 | 22.27 |
| | | 1852.5 (18625) | 24.22 | 23.25 | 22.35 |
| | 1RB-Low (0) | 1907.5 (19175) | 24.00 | 23.20 | 22.26 |
| | | 1880 (18900) | 24.13 | 23.23 | 22.35 |
| | | 1852.5 (18625) | 24.16 | 23.27 | 22.36 |
| | 12RB-High (13) | 1907.5 (19175) | 23.05 | 22.23 | 21.24 |
| | | 1880 (18900) | 22.99 | 22.12 | 21.13 |
| | | 1852.5 (18625) | 23.03 | 22.17 | 21.18 |
| | 12RB-Middle (6) | 1907.5 (19175) | 23.07 | 22.17 | 21.24 |
| | | 1880 (18900) | 23.05 | 22.16 | 21.17 |
| | | 1852.5 (18625) | 23.07 | 22.17 | 21.18 |
| | 12RB-Low (0) | 1907.5 (19175) | 23.06 | 22.22 | 21.17 |
| | | 1880 (18900) | 23.09 | 22.21 | 21.20 |
| | | 1852.5 (18625) | 23.11 | 22.20 | 21.21 |
| | 25RB (0) | 1907.5 (19175) | 23.08 | 22.27 | 21.20 |
| | | 1880 (18900) | 23.03 | 22.20 | 21.20 |
| | | 1852.5 (18625) | 23.09 | 22.19 | 21.21 |
| 10MHz | 1RB-High (49) | 1905 (19150) | 24.22 | 23.28 | 22.32 |
| | | 1880 (18900) | 24.03 | 23.18 | 22.16 |
| | | 1855 (18650) | 24.13 | 23.19 | 22.18 |
| | 1RB-Middle (24) | 1905 (19150) | 24.11 | 23.14 | 22.27 |
| | | 1880 (18900) | 24.14 | 23.19 | 22.20 |
| | | 1855 (18650) | 24.20 | 23.37 | 22.33 |
| | 1RB-Low (0) | 1905 (19150) | 24.11 | 23.13 | 22.22 |
| | | 1880 (18900) | 24.18 | 23.31 | 22.31 |
| | | 1855 (18650) | 24.13 | 23.18 | 22.36 |
| | 25RB-High (25) | 1905 (19150) | 23.07 | 22.20 | 21.16 |
| | | 1880 (18900) | 23.02 | 22.15 | 21.17 |
| | | 1855 (18650) | 23.10 | 22.22 | 21.20 |
| | 25RB-Middle (12) | 1905 (19150) | 23.08 | 22.17 | 21.16 |
| | | 1880 (18900) | 23.09 | 22.22 | 21.15 |
| | | 1855 (18650) | 23.07 | 22.23 | 21.16 |
| | 25RB-Low (0) | 1905 (19150) | 23.09 | 22.22 | 21.17 |
| | | 1880 (18900) | 23.15 | 22.28 | 21.25 |
| | | 1855 (18650) | 23.13 | 22.26 | 21.17 |
| | 50RB (0) | 1905 (19150) | 23.08 | 22.22 | 21.14 |
| | | 1880 (18900) | 23.10 | 22.19 | 21.20 |
| | | 1855 (18650) | 23.15 | 22.21 | 21.23 |

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| 15MHz | 1RB-High (74) | 1902.5 (19125) | 24.07 | 23.21 | 22.25 |
| | | 1880 (18900) | 23.99 | 23.23 | 22.15 |
| | | 1857.5 (18675) | 24.06 | 23.18 | 22.19 |
| | 1RB-Middle (37) | 1902.5 (19125) | 24.06 | 23.12 | 22.25 |
| | | 1880 (18900) | 24.13 | 23.20 | 22.30 |
| | | 1857.5 (18675) | 24.14 | 23.31 | 22.36 |
| | 1RB-Low (0) | 1902.5 (19125) | 23.94 | 23.16 | 22.23 |
| | | 1880 (18900) | 24.07 | 23.18 | 22.30 |
| | | 1857.5 (18675) | 24.07 | 23.23 | 22.20 |
| | 36RB-High (38) | 1902.5 (19125) | 22.99 | 22.16 | 21.09 |
| | | 1880 (18900) | 23.02 | 22.17 | 21.16 |
| | | 1857.5 (18675) | 23.08 | 22.15 | 21.20 |
| | 36RB-Middle (19) | 1902.5 (19125) | 23.04 | 22.11 | 21.17 |
| | | 1880 (18900) | 23.06 | 22.20 | 21.20 |
| | | 1857.5 (18675) | 23.10 | 22.25 | 21.18 |
| | 36RB-Low (0) | 1902.5 (19125) | 23.05 | 22.18 | 21.16 |
| | | 1880 (18900) | 23.12 | 22.24 | 21.19 |
| | | 1857.5 (18675) | 23.11 | 22.18 | 21.20 |
| | 75RB (0) | 1902.5 (19125) | 22.97 | 22.14 | 21.05 |
| | | 1880 (18900) | 23.10 | 22.23 | 21.24 |
| | | 1857.5 (18675) | 23.09 | 22.21 | 21.18 |
| 20MHz | 1RB-High (99) | 1900 (19100) | 23.92 | 22.98 | 22.11 |
| | | 1880 (18900) | 23.80 | 22.94 | 21.97 |
| | | 1860 (18700) | 23.87 | 22.95 | 22.01 |
| | 1RB-Middle (50) | 1900 (19100) | 23.95 | 23.06 | 22.12 |
| | | 1880 (18900) | 23.98 | 23.09 | 22.14 |
| | | 1860 (18700) | 24.00 | 23.13 | 22.13 |
| | 1RB-Low (0) | 1900 (19100) | 23.82 | 22.93 | 21.98 |
| | | 1880 (18900) | 23.90 | 22.94 | 22.04 |
| | | 1860 (18700) | 23.92 | 23.06 | 22.04 |
| | 50RB-High (50) | 1900 (19100) | 22.77 | 21.94 | 20.92 |
| | | 1880 (18900) | 22.90 | 22.02 | 21.02 |
| | | 1860 (18700) | 22.91 | 22.04 | 21.03 |
| | 50RB-Middle (25) | 1900 (19100) | 22.86 | 22.03 | 21.01 |
| | | 1880 (18900) | 22.96 | 22.09 | 21.09 |
| | | 1860 (18700) | 22.99 | 22.09 | 21.08 |
| | 50RB-Low (0) | 1900 (19100) | 22.85 | 21.97 | 20.94 |
| | | 1880 (18900) | 22.97 | 22.15 | 21.15 |
| | | 1860 (18700) | 22.96 | 22.09 | 21.07 |
| | 100RB (0) | 1900 (19100) | 22.81 | 21.90 | 20.87 |
| | | 1880 (18900) | 22.95 | 22.05 | 21.05 |
| | | 1860 (18700) | 22.96 | 22.01 | 21.00 |

| LTE Band2-Power Level C1 | | | | | |
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| **BANDWIDTH** | **Number of RBs** | **Frequency** | **QPSK** | **16QAM** | **64QAM** |
| 1.4MHz | 1RB-High (5) | 1909.3 (19193) | 21.98 | 21.41 | 21.38 |
| | | 1880 (18900) | 21.93 | 21.62 | 21.42 |
| | | 1850.7 (18607) | 21.92 | 21.34 | 21.75 |
| | 1RB-Middle (3) | 1909.3 (19193) | 21.97 | 21.43 | 21.47 |
| | | 1880 (18900) | 21.93 | 21.63 | 21.40 |
| | | 1850.7 (18607) | 21.88 | 21.31 | 21.67 |
| | 1RB-Low (0) | 1909.3 (19193) | 21.86 | 21.44 | 21.12 |
| | | 1880 (18900) | 21.77 | 21.65 | 21.45 |
| | | 1850.7 (18607) | 21.87 | 21.32 | 21.59 |
| | 3RB-High (3) | 1909.3 (19193) | 21.84 | 21.41 | 21.01 |
| | | 1880 (18900) | 21.71 | 21.46 | 20.94 |
| | | 1850.7 (18607) | 21.77 | 21.45 | 21.06 |
| | 3RB-Middle (1) | 1909.3 (19193) | 21.83 | 21.38 | 20.96 |
| | | 1880 (18900) | 21.74 | 21.45 | 21.25 |
| | | 1850.7 (18607) | 21.76 | 21.45 | 21.32 |
| | 3RB-Low (0) | 1909.3 (19193) | 21.86 | 21.38 | 21.17 |
| | | 1880 (18900) | 21.72 | 21.49 | 21.07 |
| | | 1850.7 (18607) | 21.75 | 21.45 | 21.27 |
| | 6RB (0) | 1909.3 (19193) | 21.41 | 21.56 | 21.07 |
| | | 1880 (18900) | 21.25 | 21.15 | 21.01 |
| | | 1850.7 (18607) | 21.27 | 21.48 | 21.02 |
| 3MHz | 1RB-High (14) | 1908.5 (19185) | 22.02 | 21.30 | 21.33 |
| | | 1880 (18900) | 21.90 | 21.14 | 21.41 |
| | | 1851.5 (18615) | 21.87 | 21.69 | 21.55 |
| | 1RB-Middle (7) | 1908.5 (19185) | 22.04 | 21.33 | 21.36 |
| | | 1880 (18900) | 21.93 | 21.20 | 21.50 |
| | | 1851.5 (18615) | 21.93 | 21.68 | 21.68 |
| | 1RB-Low (0) | 1908.5 (19185) | 21.80 | 21.32 | 21.13 |
| | | 1880 (18900) | 21.77 | 21.17 | 21.45 |
| | | 1851.5 (18615) | 21.79 | 21.66 | 21.65 |
| | 8RB-High (7) | 1908.5 (19185) | 21.32 | 21.40 | 20.97 |
| | | 1880 (18900) | 21.23 | 21.36 | 21.17 |
| | | 1851.5 (18615) | 21.23 | 21.37 | 21.17 |
| | 8RB-Middle (4) | 1908.5 (19185) | 21.32 | 21.43 | 21.15 |
| | | 1880 (18900) | 21.23 | 21.38 | 21.11 |
| | | 1851.5 (18615) | 21.22 | 21.36 | 21.27 |
| | 8RB-Low (0) | 1908.5 (19185) | 21.34 | 21.37 | 21.02 |
| | | 1880 (18900) | 21.23 | 21.36 | 21.21 |
| | | 1851.5 (18615) | 21.27 | 21.40 | 21.05 |
| | 15RB (0) | 1908.5 (19185) | 21.30 | 21.34 | 20.85 |
| | | 1880 (18900) | 21.24 | 21.33 | 21.09 |
| | | 1851.5 (18615) | 21.27 | 21.35 | 21.23 |

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| 5MHz | 1RB-High (24) | 1907.5 (19175) | 21.96 | 21.39 | 21.41 |
| | | 1880 (18900) | 21.88 | 21.58 | 21.43 |
| | | 1852.5 (18625) | 21.83 | 21.92 | 21.58 |
| | 1RB-Middle (12) | 1907.5 (19175) | 21.97 | 21.39 | 21.53 |
| | | 1880 (18900) | 21.94 | 21.61 | 21.57 |
| | | 1852.5 (18625) | 21.86 | 21.95 | 21.68 |
| | 1RB-Low (0) | 1907.5 (19175) | 21.88 | 21.33 | 21.27 |
| | | 1880 (18900) | 21.91 | 21.59 | 21.45 |
| | | 1852.5 (18625) | 21.90 | 21.94 | 21.61 |
| | 12RB-High (13) | 1907.5 (19175) | 21.37 | 21.43 | 21.12 |
| | | 1880 (18900) | 21.26 | 21.32 | 21.00 |
| | | 1852.5 (18625) | 21.28 | 21.40 | 21.06 |
| | 12RB-Middle (6) | 1907.5 (19175) | 21.37 | 21.44 | 21.07 |
| | | 1880 (18900) | 21.29 | 21.34 | 21.13 |
| | | 1852.5 (18625) | 21.35 | 21.46 | 21.18 |
| | 12RB-Low (0) | 1907.5 (19175) | 21.34 | 21.44 | 21.11 |
| | | 1880 (18900) | 21.30 | 21.36 | 21.16 |
| | | 1852.5 (18625) | 21.40 | 21.50 | 21.05 |
| | 25RB (0) | 1907.5 (19175) | 21.38 | 21.36 | 20.90 |
| | | 1880 (18900) | 21.31 | 21.37 | 20.98 |
| | | 1852.5 (18625) | 21.34 | 21.44 | 21.13 |
| 10MHz | 1RB-High (49) | 1905 (19150) | 21.82 | 21.34 | 21.42 |
| | | 1880 (18900) | 21.68 | 21.13 | 21.44 |
| | | 1855 (18650) | 21.82 | 21.70 | 21.68 |
| | 1RB-Middle (24) | 1905 (19150) | 21.76 | 21.28 | 21.49 |
| | | 1880 (18900) | 21.78 | 21.24 | 21.63 |
| | | 1855 (18650) | 21.83 | 21.68 | 21.87 |
| | 1RB-Low (0) | 1905 (19150) | 21.65 | 21.23 | 21.27 |
| | | 1880 (18900) | 21.70 | 21.17 | 21.54 |
| | | 1855 (18650) | 21.76 | 21.63 | 21.71 |
| | 25RB-High (25) | 1905 (19150) | 21.35 | 21.45 | 21.00 |
| | | 1880 (18900) | 21.33 | 21.36 | 21.07 |
| | | 1855 (18650) | 21.31 | 21.41 | 21.03 |
| | 25RB-Middle (12) | 1905 (19150) | 21.32 | 21.44 | 20.97 |
| | | 1880 (18900) | 21.29 | 21.33 | 21.17 |
| | | 1855 (18650) | 21.33 | 21.41 | 21.11 |
| | 25RB-Low (0) | 1905 (19150) | 21.32 | 21.45 | 20.91 |
| | | 1880 (18900) | 21.34 | 21.37 | 21.14 |
| | | 1855 (18650) | 21.32 | 21.39 | 21.17 |
| | 50RB (0) | 1905 (19150) | 21.38 | 21.42 | 20.86 |
| | | 1880 (18900) | 21.32 | 21.33 | 21.01 |
| | | 1855 (18650) | 21.37 | 21.38 | 21.22 |

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| 15MHz | 1RB-High (74) | 1902.5 (19125) | 21.77 | 21.21 | 21.44 |
| | | 1880 (18900) | 21.68 | 21.56 | 21.34 |
| | | 1857.5 (18675) | 21.66 | 21.53 | 21.74 |
| | 1RB-Middle (37) | 1902.5 (19125) | 21.73 | 21.17 | 21.41 |
| | | 1880 (18900) | 21.79 | 21.68 | 21.60 |
| | | 1857.5 (18675) | 21.80 | 21.67 | 21.62 |
| | 1RB-Low (0) | 1902.5 (19125) | 21.51 | 21.12 | 21.15 |
| | | 1880 (18900) | 21.71 | 21.62 | 21.37 |
| | | 1857.5 (18675) | 21.73 | 21.61 | 21.76 |
| | 36RB-High (38) | 1902.5 (19125) | 21.21 | 21.29 | 20.99 |
| | | 1880 (18900) | 21.26 | 21.34 | 20.96 |
| | | 1857.5 (18675) | 21.25 | 21.26 | 21.10 |
| | 36RB-Middle (19) | 1902.5 (19125) | 21.29 | 21.31 | 21.23 |
| | | 1880 (18900) | 21.29 | 21.33 | 21.04 |
| | | 1857.5 (18675) | 21.27 | 21.29 | 21.26 |
| | 36RB-Low (0) | 1902.5 (19125) | 21.28 | 21.24 | 20.94 |
| | | 1880 (18900) | 21.29 | 21.33 | 21.04 |
| | | 1857.5 (18675) | 21.31 | 21.28 | 21.07 |
| | 75RB (0) | 1902.5 (19125) | 21.24 | 21.27 | 21.08 |
| | | 1880 (18900) | 21.33 | 21.30 | 21.06 |
| | | 1857.5 (18675) | 21.28 | 21.28 | 21.23 |
| 20MHz | 1RB-High (99) | 1900 (19100) | 21.63 | 21.38 | 21.41 |
| | | 1880 (18900) | 21.43 | 21.35 | 21.35 |
| | | 1860 (18700) | 21.56 | 21.65 | 21.79 |
| | 1RB-Middle (50) | 1900 (19100) | 21.50 | 21.41 | 21.37 |
| | | 1880 (18900) | 21.62 | 21.54 | 21.59 |
| | | 1860 (18700) | 21.67 | 21.75 | 21.73 |
| | 1RB-Low (0) | 1900 (19100) | 21.49 | 21.25 | 21.14 |
| | | 1880 (18900) | 21.52 | 21.44 | 21.30 |
| | | 1860 (18700) | 21.57 | 21.63 | 21.56 |
| | 50RB-High (50) | 1900 (19100) | 21.06 | 21.01 | 21.06 |
| | | 1880 (18900) | 21.12 | 21.09 | 21.04 |
| | | 1860 (18700) | 21.05 | 21.08 | 20.99 |
| | 50RB-Middle (25) | 1900 (19100) | 21.06 | 21.10 | 21.08 |
| | | 1880 (18900) | 21.13 | 21.10 | 21.02 |
| | | 1860 (18700) | 21.17 | 21.21 | 21.18 |
| | 50RB-Low (0) | 1900 (19100) | 21.15 | 21.04 | 20.99 |
| | | 1880 (18900) | 21.19 | 21.15 | 21.02 |
| | | 1860 (18700) | 21.18 | 21.18 | 21.11 |
| | 100RB (0) | 1900 (19100) | 20.95 | 21.00 | 21.08 |
| | | 1880 (18900) | 21.12 | 21.12 | 20.97 |
| | | 1860 (18700) | 21.13 | 21.15 | 21.12 |

| LTE Band5-Power Level A1/B1/C1 | | | | | |
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| **BANDWIDTH** | **Number of RBs** | **Frequency** | **QPSK** | **16QAM** | **64QAM** |
| 1.4MHz | 1RB-High (5) | 848.3 (20643) | 23.63 | 22.81 | 21.82 |
| | | 836.5 (20525) | 23.71 | 22.93 | 21.82 |
| | | 824.7 (20407) | 23.74 | 22.94 | 21.85 |
| | 1RB-Middle (3) | 848.3 (20643) | 23.61 | 22.82 | 21.69 |
| | | 836.5 (20525) | 23.74 | 22.93 | 21.84 |
| | | 824.7 (20407) | 23.79 | 22.97 | 21.86 |
| | 1RB-Low (0) | 848.3 (20643) | 23.68 | 22.89 | 21.77 |
| | | 836.5 (20525) | 23.75 | 22.99 | 21.80 |
| | | 824.7 (20407) | 23.73 | 22.99 | 21.86 |
| | 3RB-High (3) | 848.3 (20643) | 23.66 | 22.65 | 21.72 |
| | | 836.5 (20525) | 23.72 | 22.74 | 21.79 |
| | | 824.7 (20407) | 23.75 | 22.70 | 21.82 |
| | 3RB-Middle (1) | 848.3 (20643) | 23.69 | 22.75 | 21.73 |
| | | 836.5 (20525) | 23.75 | 22.71 | 21.78 |
| | | 824.7 (20407) | 23.74 | 22.75 | 21.77 |
| | 3RB-Low (0) | 848.3 (20643) | 23.69 | 22.68 | 21.78 |
| | | 836.5 (20525) | 23.74 | 22.74 | 21.79 |
| | | 824.7 (20407) | 23.74 | 22.77 | 21.77 |
| | 6RB (0) | 848.3 (20643) | 22.66 | 21.72 | 20.60 |
| | | 836.5 (20525) | 22.79 | 21.86 | 20.71 |
| | | 824.7 (20407) | 22.72 | 21.79 | 20.65 |
| 3MHz | 1RB-High (14) | 847.5 (20635) | 23.62 | 22.73 | 21.76 |
| | | 836.5 (20525) | 23.72 | 22.95 | 21.83 |
| | | 825.5 (20415) | 23.77 | 23.00 | 21.96 |
| | 1RB-Middle (7) | 847.5 (20635) | 23.63 | 22.88 | 21.77 |
| | | 836.5 (20525) | 23.73 | 23.01 | 21.84 |
| | | 825.5 (20415) | 23.79 | 23.04 | 21.89 |
| | 1RB-Low (0) | 847.5 (20635) | 23.66 | 22.96 | 21.75 |
| | | 836.5 (20525) | 23.73 | 23.03 | 21.87 |
| | | 825.5 (20415) | 23.72 | 23.02 | 21.87 |
| | 8RB-High (7) | 847.5 (20635) | 22.58 | 21.70 | 20.65 |
| | | 836.5 (20525) | 22.68 | 21.75 | 20.71 |
| | | 825.5 (20415) | 22.71 | 21.77 | 20.75 |
| | 8RB-Middle (4) | 847.5 (20635) | 22.67 | 21.71 | 20.62 |
| | | 836.5 (20525) | 22.77 | 21.82 | 20.77 |
| | | 825.5 (20415) | 22.73 | 21.77 | 20.68 |
| | 8RB-Low (0) | 847.5 (20635) | 22.67 | 21.73 | 20.67 |
| | | 836.5 (20525) | 22.73 | 21.80 | 20.73 |
| | | 825.5 (20415) | 22.76 | 21.81 | 20.77 |
| | 15RB (0) | 847.5 (20635) | 22.64 | 21.70 | 20.61 |
| | | 836.5 (20525) | 22.72 | 21.74 | 20.72 |
| | | 825.5 (20415) | 22.73 | 21.75 | 20.65 |

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|---|---|---|---|---|---|
| 5MHz | 1RB-High (24) | 846.5 (20625) | 23.67 | 22.76 | 21.77 |
| | | 836.5 (20525) | 23.82 | 22.89 | 21.99 |
| | | 826.5 (20425) | 23.87 | 23.03 | 21.98 |
| | 1RB-Middle (12) | 846.5 (20625) | 23.70 | 22.94 | 21.81 |
| | | 836.5 (20525) | 23.80 | 22.92 | 21.94 |
| | | 826.5 (20425) | 23.87 | 23.02 | 21.94 |
| | 1RB-Low (0) | 846.5 (20625) | 23.76 | 23.00 | 21.90 |
| | | 836.5 (20525) | 23.80 | 22.99 | 21.96 |
| | | 826.5 (20425) | 23.80 | 22.95 | 21.85 |
| | 12RB-High (13) | 846.5 (20625) | 22.60 | 21.59 | 20.64 |
| | | 836.5 (20525) | 22.68 | 21.68 | 20.69 |
| | | 826.5 (20425) | 22.77 | 21.75 | 20.77 |
| | 12RB-Middle (6) | 846.5 (20625) | 22.68 | 21.66 | 20.68 |
| | | 836.5 (20525) | 22.77 | 21.73 | 20.74 |
| | | 826.5 (20425) | 22.80 | 21.78 | 20.75 |
| | 12RB-Low (0) | 846.5 (20625) | 22.71 | 21.70 | 20.70 |
| | | 836.5 (20525) | 22.83 | 21.79 | 20.80 |
| | | 826.5 (20425) | 22.75 | 21.74 | 20.73 |
| | 25RB (0) | 846.5 (20625) | 22.68 | 21.69 | 20.67 |
| | | 836.5 (20525) | 22.75 | 21.73 | 20.69 |
| | | 826.5 (20425) | 22.82 | 21.81 | 20.78 |
| 10MHz | 1RB-High (49) | 844 (20600) | 23.64 | 22.87 | 21.74 |
| | | 836.5 (20525) | 23.80 | 22.99 | 21.86 |
| | | 829 (20450) | 23.79 | 23.04 | 21.83 |
| | 1RB-Middle (24) | 844 (20600) | 23.80 | 23.06 | 21.86 |
| | | 836.5 (20525) | 23.83 | 22.95 | 21.99 |
| | | 829 (20450) | 23.92 | 23.10 | 22.06 |
| | 1RB-Low (0) | 844 (20600) | 23.82 | 22.96 | 21.93 |
| | | 836.5 (20525) | 23.86 | 22.95 | 21.87 |
| | | 829 (20450) | 23.82 | 22.97 | 21.88 |
| | 25RB-High (25) | 844 (20600) | 22.68 | 21.68 | 20.70 |
| | | 836.5 (20525) | 22.72 | 21.65 | 20.63 |
| | | 829 (20450) | 22.79 | 21.81 | 20.79 |
| | 25RB-Middle (12) | 844 (20600) | 22.71 | 21.76 | 20.75 |
| | | 836.5 (20525) | 22.78 | 21.78 | 20.75 |
| | | 829 (20450) | 22.84 | 21.80 | 20.78 |
| | 25RB-Low (0) | 844 (20600) | 22.83 | 21.79 | 20.79 |
| | | 836.5 (20525) | 22.87 | 21.84 | 20.77 |
| | | 829 (20450) | 22.81 | 21.82 | 20.74 |
| | 50RB (0) | 844 (20600) | 22.78 | 21.74 | 20.73 |
| | | 836.5 (20525) | 22.77 | 21.74 | 20.73 |
| | | 829 (20450) | 22.82 | 21.80 | 20.78 |

| LTE Band7 ANT0-Power Level A1/B1 | | | | | |
|---|---|---|---|---|---|
| **BANDWIDTH** | **Number of RBs** | **Frequency** | **QPSK** | **16QAM** | **64QAM** |
| 5MHz | 1RB-High (24) | 2567.5 (21425) | 23.88 | 23.23 | 22.18 |
| | | 2535 (21100) | 23.80 | 23.04 | 22.00 |
| | | 2502.5 (20775) | 24.05 | 23.33 | 22.30 |
| | 1RB-Middle (12) | 2567.5 (21425) | 23.86 | 23.17 | 22.20 |
| | | 2535 (21100) | 23.83 | 22.90 | 22.03 |
| | | 2502.5 (20775) | 24.04 | 23.18 | 22.28 |
| | 1RB-Low (0) | 2567.5 (21425) | 23.83 | 23.07 | 22.15 |
| | | 2535 (21100) | 23.74 | 22.97 | 21.98 |
| | | 2502.5 (20775) | 24.01 | 23.22 | 22.24 |
| | 12RB-High (13) | 2567.5 (21425) | 22.80 | 21.96 | 20.99 |
| | | 2535 (21100) | 22.66 | 21.80 | 20.81 |
| | | 2502.5 (20775) | 22.96 | 22.08 | 21.11 |
| | 12RB-Middle (6) | 2567.5 (21425) | 22.83 | 21.93 | 21.01 |
| | | 2535 (21100) | 22.68 | 21.83 | 20.79 |
| | | 2502.5 (20775) | 22.99 | 22.12 | 21.11 |
| | 12RB-Low (0) | 2567.5 (21425) | 22.89 | 22.01 | 21.02 |
| | | 2535 (21100) | 22.77 | 21.87 | 20.86 |
| | | 2502.5 (20775) | 22.94 | 22.11 | 21.11 |
| | 25RB (0) | 2567.5 (21425) | 22.85 | 22.02 | 20.98 |
| | | 2535 (21100) | 22.69 | 21.85 | 20.82 |
| | | 2502.5 (20775) | 23.00 | 22.10 | 21.11 |
| 10MHz | 1RB-High (49) | 2565 (21400) | 23.96 | 23.14 | 22.20 |
| | | 2535 (21100) | 23.80 | 23.02 | 21.99 |
| | | 2505 (20800) | 23.92 | 23.14 | 22.11 |
| | 1RB-Middle (24) | 2565 (21400) | 23.84 | 23.07 | 22.05 |
| | | 2535 (21100) | 23.78 | 22.96 | 22.00 |
| | | 2505 (20800) | 24.10 | 23.34 | 22.20 |
| | 1RB-Low (0) | 2565 (21400) | 23.86 | 23.07 | 22.14 |
| | | 2535 (21100) | 23.83 | 22.98 | 21.96 |
| | | 2505 (20800) | 24.04 | 23.22 | 22.16 |
| | 25RB-High (25) | 2565 (21400) | 22.83 | 21.99 | 20.97 |
| | | 2535 (21100) | 22.77 | 21.89 | 20.87 |
| | | 2505 (20800) | 22.94 | 22.11 | 21.08 |
| | 25RB-Middle (12) | 2565 (21400) | 22.85 | 22.01 | 21.01 |
| | | 2535 (21100) | 22.74 | 21.87 | 20.89 |
| | | 2505 (20800) | 22.96 | 22.13 | 21.13 |
| | 25RB-Low (0) | 2565 (21400) | 22.85 | 22.01 | 20.96 |
| | | 2535 (21100) | 22.75 | 21.88 | 20.84 |
| | | 2505 (20800) | 22.97 | 22.10 | 21.11 |
| | 50RB (0) | 2565 (21400) | 22.83 | 21.95 | 21.00 |
| | | 2535 (21100) | 22.76 | 21.87 | 20.87 |
| | | 2505 (20800) | 22.97 | 22.10 | 21.08 |

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|---|---|---|---|---|---|
| 15MHz | 1RB-High (74) | 2562.5 (21375) | 23.80 | 23.06 | 22.13 |
| | | 2535 (21100) | 23.68 | 22.95 | 21.94 |
| | | 2507.5 (20825) | 23.75 | 22.91 | 21.98 |
| | 1RB-Middle (37) | 2562.5 (21375) | 23.87 | 23.02 | 22.13 |
| | | 2535 (21100) | 23.78 | 22.94 | 22.01 |
| | | 2507.5 (20825) | 23.96 | 23.18 | 22.19 |
| | 1RB-Low (0) | 2562.5 (21375) | 23.79 | 23.09 | 22.05 |
| | | 2535 (21100) | 23.71 | 22.89 | 21.97 |
| | | 2507.5 (20825) | 23.93 | 23.21 | 22.13 |
| | 36RB-High (38) | 2562.5 (21375) | 22.77 | 21.92 | 20.98 |
| | | 2535 (21100) | 22.73 | 21.83 | 20.87 |
| | | 2507.5 (20825) | 22.87 | 22.03 | 21.03 |
| | 36RB-Middle (19) | 2562.5 (21375) | 22.78 | 21.92 | 20.91 |
| | | 2535 (21100) | 22.69 | 21.89 | 20.92 |
| | | 2507.5 (20825) | 22.91 | 22.04 | 21.04 |
| | 36RB-Low (0) | 2562.5 (21375) | 22.84 | 21.96 | 20.97 |
| | | 2535 (21100) | 22.73 | 21.81 | 20.89 |
| | | 2507.5 (20825) | 22.89 | 22.00 | 20.99 |
| | 75RB (0) | 2562.5 (21375) | 22.81 | 21.98 | 20.93 |
| | | 2535 (21100) | 22.76 | 21.88 | 20.84 |
| | | 2507.5 (20825) | 22.91 | 21.98 | 21.00 |
| 20MHz | 1RB-High (99) | 2560 (21350) | 23.68 | 22.82 | 21.98 |
| | | 2535 (21100) | 23.53 | 22.73 | 21.72 |
| | | 2510 (20850) | 23.51 | 22.70 | 21.74 |
| | 1RB-Middle (50) | 2560 (21350) | 23.73 | 22.93 | 21.89 |
| | | 2535 (21100) | 23.61 | 22.73 | 21.78 |
| | | 2510 (20850) | 23.74 | 22.93 | 21.91 |
| | 1RB-Low (0) | 2560 (21350) | 23.61 | 22.91 | 21.89 |
| | | 2535 (21100) | 23.50 | 22.63 | 21.69 |
| | | 2510 (20850) | 23.71 | 22.92 | 21.99 |
| | 50RB-High (50) | 2560 (21350) | 22.65 | 21.75 | 20.77 |
| | | 2535 (21100) | 22.61 | 21.76 | 20.73 |
| | | 2510 (20850) | 22.55 | 21.73 | 20.69 |
| | 50RB-Middle (25) | 2560 (21350) | 22.67 | 21.81 | 20.84 |
| | | 2535 (21100) | 22.60 | 21.72 | 20.70 |
| | | 2510 (20850) | 22.68 | 21.79 | 20.78 |
| | 50RB-Low (0) | 2560 (21350) | 22.67 | 21.79 | 20.75 |
| | | 2535 (21100) | 22.54 | 21.70 | 20.63 |
| | | 2510 (20850) | 22.67 | 21.77 | 20.79 |
| | 100RB (0) | 2560 (21350) | 22.67 | 21.77 | 20.72 |
| | | 2535 (21100) | 22.61 | 21.68 | 20.67 |
| | | 2510 (20850) | 22.62 | 21.72 | 20.73 |

| LTE Band7 ANT0-Power Level C1 | | | | | |
|---|---|---|---|---|---|
| **BANDWIDTH** | **Number of RBs** | **Frequency** | **QPSK** | **16QAM** | **64QAM** |
| 5MHz | 1RB-High (24) | 2567.5 (21425) | 19.88 | 19.50 | 19.77 |
| | | 2535 (21100) | 20.05 | 19.70 | 19.65 |
| | | 2502.5 (20775) | 20.08 | 19.97 | 19.70 |
| | 1RB-Middle (12) | 2567.5 (21425) | 19.87 | 19.56 | 19.83 |
| | | 2535 (21100) | 20.04 | 19.71 | 19.89 |
| | | 2502.5 (20775) | 20.08 | 20.01 | 19.59 |
| | 1RB-Low (0) | 2567.5 (21425) | 19.89 | 19.53 | 19.46 |
| | | 2535 (21100) | 20.01 | 19.64 | 19.54 |
| | | 2502.5 (20775) | 20.03 | 19.94 | 19.65 |
| | 12RB-High (13) | 2567.5 (21425) | 19.36 | 19.45 | 19.20 |
| | | 2535 (21100) | 19.39 | 19.49 | 19.25 |
| | | 2502.5 (20775) | 19.47 | 19.65 | 19.21 |
| | 12RB-Middle (6) | 2567.5 (21425) | 19.42 | 19.45 | 19.48 |
| | | 2535 (21100) | 19.44 | 19.55 | 19.24 |
| | | 2502.5 (20775) | 19.48 | 19.64 | 19.08 |
| | 12RB-Low (0) | 2567.5 (21425) | 19.40 | 19.49 | 19.21 |
| | | 2535 (21100) | 19.48 | 19.57 | 19.38 |
| | | 2502.5 (20775) | 19.45 | 19.60 | 19.14 |
| | 25RB (0) | 2567.5 (21425) | 19.39 | 19.37 | 19.12 |
| | | 2535 (21100) | 19.46 | 19.50 | 19.33 |
| | | 2502.5 (20775) | 19.51 | 19.58 | 19.27 |
| 10MHz | 1RB-High (49) | 2565 (21400) | 19.95 | 19.31 | 19.78 |
| | | 2535 (21100) | 19.93 | 19.85 | 19.61 |
| | | 2505 (20800) | 19.96 | 19.58 | 19.76 |
| | 1RB-Middle (24) | 2565 (21400) | 19.96 | 19.35 | 19.64 |
| | | 2535 (21100) | 19.93 | 19.87 | 19.92 |
| | | 2505 (20800) | 20.00 | 19.61 | 19.63 |
| | 1RB-Low (0) | 2565 (21400) | 19.97 | 19.35 | 19.69 |
| | | 2535 (21100) | 19.88 | 19.80 | 19.55 |
| | | 2505 (20800) | 19.91 | 19.53 | 19.47 |
| | 25RB-High (25) | 2565 (21400) | 19.48 | 19.44 | 19.28 |
| | | 2535 (21100) | 19.43 | 19.49 | 19.32 |
| | | 2505 (20800) | 19.54 | 19.65 | 19.19 |
| | 25RB-Middle (12) | 2565 (21400) | 19.43 | 19.49 | 19.34 |
| | | 2535 (21100) | 19.50 | 19.56 | 19.25 |
| | | 2505 (20800) | 19.51 | 19.64 | 19.21 |
| | 25RB-Low (0) | 2565 (21400) | 19.41 | 19.46 | 19.21 |
| | | 2535 (21100) | 19.45 | 19.54 | 19.17 |
| | | 2505 (20800) | 19.46 | 19.56 | 19.29 |
| | 50RB (0) | 2565 (21400) | 19.41 | 19.43 | 19.11 |
| | | 2535 (21100) | 19.44 | 19.46 | 19.27 |
| | | 2505 (20800) | 19.50 | 19.51 | 19.27 |

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|---|---|---|---|---|---|
| 15MHz | 1RB-High (74) | 2562.5 (21375) | 19.94 | 19.78 | 19.60 |
| | | 2535 (21100) | 19.86 | 19.84 | 19.69 |
| | | 2507.5 (20825) | 19.82 | 19.30 | 19.54 |
| | 1RB-Middle (37) | 2562.5 (21375) | 19.97 | 19.86 | 19.83 |
| | | 2535 (21100) | 19.98 | 19.93 | 19.86 |
| | | 2507.5 (20825) | 19.96 | 19.46 | 19.81 |
| | 1RB-Low (0) | 2562.5 (21375) | 19.84 | 19.80 | 19.44 |
| | | 2535 (21100) | 19.87 | 19.80 | 19.55 |
| | | 2507.5 (20825) | 19.90 | 19.37 | 19.49 |
| | 36RB-High (38) | 2562.5 (21375) | 19.36 | 19.41 | 19.29 |
| | | 2535 (21100) | 19.41 | 19.41 | 19.26 |
| | | 2507.5 (20825) | 19.46 | 19.44 | 19.16 |
| | 36RB-Middle (19) | 2562.5 (21375) | 19.42 | 19.48 | 19.38 |
| | | 2535 (21100) | 19.36 | 19.40 | 19.30 |
| | | 2507.5 (20825) | 19.46 | 19.46 | 19.17 |
| | 36RB-Low (0) | 2562.5 (21375) | 19.41 | 19.46 | 19.26 |
| | | 2535 (21100) | 19.41 | 19.41 | 19.36 |
| | | 2507.5 (20825) | 19.39 | 19.45 | 19.26 |
| | 75RB (0) | 2562.5 (21375) | 19.41 | 19.44 | 19.28 |
| | | 2535 (21100) | 19.39 | 19.41 | 19.23 |
| | | 2507.5 (20825) | 19.44 | 19.44 | 19.15 |
| 20MHz | 1RB-High (99) | 2560 (21350) | 19.66 | 19.66 | 19.57 |
| | | 2535 (21100) | 19.69 | 19.71 | 19.68 |
| | | 2510 (20850) | 19.70 | 19.62 | 19.60 |
| | 1RB-Middle (50) | 2560 (21350) | 19.78 | 19.77 | 19.92 |
| | | 2535 (21100) | 19.82 | 19.78 | 19.79 |
| | | 2510 (20850) | 19.79 | 19.72 | 19.75 |
| | 1RB-Low (0) | 2560 (21350) | 19.63 | 19.59 | 19.49 |
| | | 2535 (21100) | 19.61 | 19.56 | 19.46 |
| | | 2510 (20850) | 19.63 | 19.56 | 19.62 |
| | 50RB-High (50) | 2560 (21350) | 19.30 | 19.24 | 19.21 |
| | | 2535 (21100) | 19.32 | 19.32 | 19.21 |
| | | 2510 (20850) | 19.28 | 19.21 | 19.32 |
| | 50RB-Middle (25) | 2560 (21350) | 19.29 | 19.34 | 19.23 |
| | | 2535 (21100) | 19.25 | 19.27 | 19.29 |
| | | 2510 (20850) | 19.25 | 19.23 | 19.35 |
| | 50RB-Low (0) | 2560 (21350) | 19.18 | 19.22 | 19.34 |
| | | 2535 (21100) | 19.26 | 19.27 | 19.38 |
| | | 2510 (20850) | 19.25 | 19.22 | 19.26 |
| | 100RB (0) | 2560 (21350) | 19.22 | 19.24 | 19.14 |
| | | 2535 (21100) | 19.28 | 19.29 | 19.40 |
| | | 2510 (20850) | 19.21 | 19.15 | 19.25 |

| LTE Band7 ANT4-Power Level A1 | | | | | |
|---|---|---|---|---|---|
| **BANDWIDTH** | **Number of RBs** | **Frequency** | **QPSK** | **16QAM** | **64QAM** |
| 5MHz | 1RB-High (24) | 2567.5 (21425) | 15.78 | 15.79 | 15.81 |
| | | 2535 (21100) | 15.62 | 15.76 | 15.73 |
| | | 2502.5 (20775) | 15.51 | 15.85 | 15.82 |
| | 1RB-Middle (12) | 2567.5 (21425) | 15.99 | 15.91 | 16.00 |
| | | 2535 (21100) | 15.72 | 16.03 | 15.89 |
| | | 2502.5 (20775) | 15.63 | 15.75 | 15.88 |
| | 1RB-Low (0) | 2567.5 (21425) | 15.77 | 15.76 | 15.97 |
| | | 2535 (21100) | 15.68 | 15.64 | 15.69 |
| | | 2502.5 (20775) | 15.50 | 15.48 | 15.69 |
| | 12RB-High (13) | 2567.5 (21425) | 15.65 | 15.95 | 15.92 |
| | | 2535 (21100) | 15.62 | 15.71 | 15.93 |
| | | 2502.5 (20775) | 15.76 | 15.69 | 15.68 |
| | 12RB-Middle (6) | 2567.5 (21425) | 15.84 | 15.89 | 15.98 |
| | | 2535 (21100) | 15.76 | 15.75 | 15.82 |
| | | 2502.5 (20775) | 15.69 | 15.65 | 15.58 |
| | 12RB-Low (0) | 2567.5 (21425) | 15.83 | 15.85 | 15.92 |
| | | 2535 (21100) | 15.59 | 15.75 | 15.66 |
| | | 2502.5 (20775) | 15.45 | 15.77 | 15.58 |
| | 25RB (0) | 2567.5 (21425) | 15.78 | 15.96 | 15.96 |
| | | 2535 (21100) | 15.57 | 15.84 | 15.71 |
| | | 2502.5 (20775) | 15.44 | 15.84 | 15.76 |
| 10MHz | 1RB-High (49) | 2565 (21400) | 15.72 | 15.90 | 15.72 |
| | | 2535 (21100) | 15.75 | 15.81 | 15.67 |
| | | 2505 (20800) | 15.68 | 15.72 | 15.71 |
| | 1RB-Middle (24) | 2565 (21400) | 16.00 | 15.88 | 15.86 |
| | | 2535 (21100) | 15.67 | 15.96 | 15.83 |
| | | 2505 (20800) | 15.73 | 15.76 | 15.63 |
| | 1RB-Low (0) | 2565 (21400) | 15.79 | 15.98 | 15.92 |
| | | 2535 (21100) | 15.63 | 15.66 | 15.79 |
| | | 2505 (20800) | 15.51 | 15.75 | 15.48 |
| | 25RB-High (25) | 2565 (21400) | 15.75 | 15.87 | 15.85 |
| | | 2535 (21100) | 15.67 | 15.72 | 15.76 |
| | | 2505 (20800) | 15.72 | 15.65 | 15.64 |
| | 25RB-Middle (12) | 2565 (21400) | 15.75 | 16.00 | 15.83 |
| | | 2535 (21100) | 15.74 | 16.01 | 15.98 |
| | | 2505 (20800) | 15.57 | 15.82 | 15.61 |
| | 25RB-Low (0) | 2565 (21400) | 15.79 | 15.98 | 15.96 |
| | | 2535 (21100) | 15.77 | 15.90 | 15.85 |
| | | 2505 (20800) | 15.40 | 15.70 | 15.66 |
| | 50RB (0) | 2565 (21400) | 15.92 | 16.08 | 15.81 |
| | | 2535 (21100) | 15.72 | 15.92 | 15.71 |
| | | 2505 (20800) | 15.46 | 15.79 | 15.63 |

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| 15MHz | 1RB-High (74) | 2562.5 (21375) | 15.58 | 15.73 | 15.78 |
| | | 2535 (21100) | 15.67 | 15.98 | 15.76 |
| | | 2507.5 (20825) | 15.63 | 15.60 | 15.84 |
| | 1RB-Middle (37) | 2562.5 (21375) | 15.98 | 15.86 | 15.99 |
| | | 2535 (21100) | 15.75 | 15.92 | 15.86 |
| | | 2507.5 (20825) | 15.50 | 15.81 | 15.64 |
| | 1RB-Low (0) | 2562.5 (21375) | 15.60 | 15.97 | 15.87 |
| | | 2535 (21100) | 15.54 | 15.61 | 15.68 |
| | | 2507.5 (20825) | 15.65 | 15.73 | 15.71 |
| | 36RB-High (38) | 2562.5 (21375) | 15.66 | 16.00 | 15.82 |
| | | 2535 (21100) | 15.56 | 15.97 | 15.76 |
| | | 2507.5 (20825) | 15.72 | 15.77 | 15.85 |
| | 36RB-Middle (19) | 2562.5 (21375) | 15.95 | 16.09 | 16.04 |
| | | 2535 (21100) | 15.74 | 15.79 | 15.72 |
| | | 2507.5 (20825) | 15.59 | 15.84 | 15.63 |
| | 36RB-Low (0) | 2562.5 (21375) | 15.85 | 15.83 | 15.95 |
| | | 2535 (21100) | 15.83 | 15.93 | 15.66 |
| | | 2507.5 (20825) | 15.41 | 15.81 | 15.66 |
| | 75RB (0) | 2562.5 (21375) | 15.68 | 15.94 | 15.80 |
| | | 2535 (21100) | 15.80 | 15.90 | 15.79 |
| | | 2507.5 (20825) | 15.65 | 15.73 | 15.67 |
| 20MHz | 1RB-High (99) | 2560 (21350) | 15.72 | 15.84 | 15.81 |
| | | 2535 (21100) | 15.73 | 15.85 | 15.82 |
| | | 2510 (20850) | 15.60 | 15.72 | 15.69 |
| | 1RB-Middle (50) | 2560 (21350) | 15.89 | 16.01 | 15.98 |
| | | 2535 (21100) | 15.78 | 15.90 | 15.87 |
| | | 2510 (20850) | 15.65 | 15.77 | 15.74 |
| | 1RB-Low (0) | 2560 (21350) | 15.74 | 15.86 | 15.83 |
| | | 2535 (21100) | 15.59 | 15.71 | 15.68 |
| | | 2510 (20850) | 15.51 | 15.63 | 15.60 |
| | 50RB-High (50) | 2560 (21350) | 15.78 | 15.90 | 15.87 |
| | | 2535 (21100) | 15.70 | 15.82 | 15.79 |
| | | 2510 (20850) | 15.66 | 15.78 | 15.75 |
| | 50RB-Middle (25) | 2560 (21350) | 15.85 | 15.97 | 15.94 |
| | | 2535 (21100) | 15.74 | 15.86 | 15.83 |
| | | 2510 (20850) | 15.63 | 15.75 | 15.72 |
| | 50RB-Low (0) | 2560 (21350) | 15.81 | 15.94 | 15.90 |
| | | 2535 (21100) | 15.71 | 15.83 | 15.80 |
| | | 2510 (20850) | 15.55 | 15.67 | 15.64 |
| | 100RB (0) | 2560 (21350) | 15.81 | 15.93 | 15.90 |
| | | 2535 (21100) | 15.70 | 15.82 | 15.79 |
| | | 2510 (20850) | 15.59 | 15.71 | 15.68 |

| LTE Band7 ANT4-Power Level B1 | | | | | |
|---|---|---|---|---|---|
| **BANDWIDTH** | **Number of RBs** | **Frequency** | **QPSK** | **16QAM** | **64QAM** |
| 5MHz | 1RB-High (24) | 2567.5 (21425) | 23.18 | 22.50 | 21.59 |
| | | 2535 (21100) | 23.19 | 22.79 | 21.52 |
| | | 2502.5 (20775) | 23.22 | 22.63 | 21.33 |
| | 1RB-Middle (12) | 2567.5 (21425) | 23.44 | 22.75 | 22.07 |
| | | 2535 (21100) | 23.34 | 22.74 | 21.53 |
| | | 2502.5 (20775) | 23.16 | 22.71 | 21.50 |
| | 1RB-Low (0) | 2567.5 (21425) | 23.28 | 22.56 | 21.98 |
| | | 2535 (21100) | 23.09 | 22.44 | 21.47 |
| | | 2502.5 (20775) | 23.00 | 22.35 | 21.35 |
| | 12RB-High (13) | 2567.5 (21425) | 22.19 | 21.63 | 20.72 |
| | | 2535 (21100) | 22.23 | 21.63 | 20.63 |
| | | 2502.5 (20775) | 22.25 | 21.61 | 20.73 |
| | 12RB-Middle (6) | 2567.5 (21425) | 22.57 | 22.00 | 20.83 |
| | | 2535 (21100) | 22.19 | 21.60 | 20.67 |
| | | 2502.5 (20775) | 22.08 | 21.42 | 20.76 |
| | 12RB-Low (0) | 2567.5 (21425) | 22.46 | 21.81 | 20.91 |
| | | 2535 (21100) | 22.40 | 21.51 | 20.70 |
| | | 2502.5 (20775) | 21.97 | 21.36 | 20.61 |
| | 25RB (0) | 2567.5 (21425) | 22.43 | 21.81 | 20.75 |
| | | 2535 (21100) | 22.40 | 21.67 | 20.86 |
| | | 2502.5 (20775) | 22.28 | 21.37 | 20.42 |
| 10MHz | 1RB-High (49) | 2565 (21400) | 23.07 | 22.30 | 21.62 |
| | | 2535 (21100) | 23.22 | 22.82 | 21.48 |
| | | 2505 (20800) | 23.23 | 22.53 | 21.48 |
| | 1RB-Middle (24) | 2565 (21400) | 23.64 | 22.79 | 22.01 |
| | | 2535 (21100) | 23.29 | 22.66 | 21.56 |
| | | 2505 (20800) | 23.34 | 22.47 | 21.43 |
| | 1RB-Low (0) | 2565 (21400) | 23.22 | 22.60 | 21.83 |
| | | 2535 (21100) | 23.05 | 22.61 | 21.31 |
| | | 2505 (20800) | 22.90 | 22.24 | 21.13 |
| | 25RB-High (25) | 2565 (21400) | 22.31 | 21.80 | 20.86 |
| | | 2535 (21100) | 22.36 | 21.76 | 20.67 |
| | | 2505 (20800) | 22.38 | 21.59 | 20.70 |
| | 25RB-Middle (12) | 2565 (21400) | 22.57 | 21.79 | 20.96 |
| | | 2535 (21100) | 22.21 | 21.56 | 20.69 |
| | | 2505 (20800) | 22.18 | 21.60 | 20.47 |
| | 25RB-Low (0) | 2565 (21400) | 22.42 | 21.91 | 20.97 |
| | | 2535 (21100) | 22.19 | 21.63 | 20.53 |
| | | 2505 (20800) | 22.04 | 21.47 | 20.58 |
| | 50RB (0) | 2565 (21400) | 22.44 | 21.76 | 20.87 |
| | | 2535 (21100) | 22.28 | 21.65 | 20.79 |
| | | 2505 (20800) | 22.12 | 21.29 | 20.60 |

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|---|---|---|---|---|---|
| 15MHz | 1RB-High (74) | 2562.5 (21375) | 23.06 | 22.31 | 21.39 |
| | | 2535 (21100) | 23.20 | 22.82 | 21.47 |
| | | 2507.5 (20825) | 23.14 | 22.37 | 21.41 |
| | 1RB-Middle (37) | 2562.5 (21375) | 23.67 | 22.93 | 21.97 |
| | | 2535 (21100) | 23.46 | 22.54 | 21.49 |
| | | 2507.5 (20825) | 23.15 | 22.66 | 21.67 |
| | 1RB-Low (0) | 2562.5 (21375) | 23.31 | 22.60 | 21.93 |
| | | 2535 (21100) | 23.22 | 22.50 | 21.54 |
| | | 2507.5 (20825) | 22.97 | 22.20 | 21.29 |
| | 36RB-High (38) | 2562.5 (21375) | 22.45 | 21.86 | 20.57 |
| | | 2535 (21100) | 22.32 | 21.54 | 20.71 |
| | | 2507.5 (20825) | 22.20 | 21.54 | 20.58 |
| | 36RB-Middle (19) | 2562.5 (21375) | 22.40 | 21.87 | 20.82 |
| | | 2535 (21100) | 22.28 | 21.50 | 20.70 |
| | | 2507.5 (20825) | 22.31 | 21.33 | 20.46 |
| | 36RB-Low (0) | 2562.5 (21375) | 22.39 | 21.96 | 20.81 |
| | | 2535 (21100) | 22.35 | 21.61 | 20.61 |
| | | 2507.5 (20825) | 22.13 | 21.48 | 20.56 |
| | 75RB (0) | 2562.5 (21375) | 22.33 | 21.80 | 20.92 |
| | | 2535 (21100) | 22.24 | 21.69 | 20.78 |
| | | 2507.5 (20825) | 22.20 | 21.43 | 20.38 |
| 20MHz | 1RB-High (99) | 2560 (21350) | 23.03 | 22.35 | 21.47 |
| | | 2535 (21100) | 23.32 | 22.68 | 21.61 |
| | | 2510 (20850) | 23.21 | 22.51 | 21.48 |
| | 1RB-Middle (50) | 2560 (21350) | 23.55 | 22.89 | 22.01 |
| | | 2535 (21100) | 23.34 | 22.67 | 21.64 |
| | | 2510 (20850) | 23.28 | 22.60 | 21.55 |
| | 1RB-Low (0) | 2560 (21350) | 23.35 | 22.70 | 21.84 |
| | | 2535 (21100) | 23.15 | 22.47 | 21.41 |
| | | 2510 (20850) | 22.99 | 22.33 | 21.27 |
| | 50RB-High (50) | 2560 (21350) | 22.31 | 21.74 | 20.71 |
| | | 2535 (21100) | 22.34 | 21.61 | 20.72 |
| | | 2510 (20850) | 22.25 | 21.52 | 20.63 |
| | 50RB-Middle (25) | 2560 (21350) | 22.52 | 21.90 | 20.91 |
| | | 2535 (21100) | 22.30 | 21.57 | 20.72 |
| | | 2510 (20850) | 22.21 | 21.47 | 20.61 |
| | 50RB-Low (0) | 2560 (21350) | 22.47 | 21.89 | 20.87 |
| | | 2535 (21100) | 22.31 | 21.54 | 20.67 |
| | | 2510 (20850) | 22.11 | 21.35 | 20.47 |
| | 100RB (0) | 2560 (21350) | 22.41 | 21.83 | 20.81 |
| | | 2535 (21100) | 22.33 | 21.61 | 20.72 |
| | | 2510 (20850) | 22.21 | 21.44 | 20.51 |

| LTE Band7 ANT4-Power Level C1 | | | | | |
|---|---|---|---|---|---|
| **BANDWIDTH** | **Number of RBs** | **Frequency** | **QPSK** | **16QAM** | **64QAM** |
| 5MHz | 1RB-High (24) | 2567.5 (21425) | 20.01 | 20.29 | 20.19 |
| | | 2535 (21100) | 20.00 | 20.44 | 20.25 |
| | | 2502.5 (20775) | 19.88 | 20.25 | 20.17 |
| | 1RB-Middle (12) | 2567.5 (21425) | 20.34 | 20.54 | 20.55 |
| | | 2535 (21100) | 20.10 | 20.42 | 20.41 |
| | | 2502.5 (20775) | 19.95 | 20.09 | 20.22 |
| | 1RB-Low (0) | 2567.5 (21425) | 19.95 | 20.47 | 20.26 |
| | | 2535 (21100) | 19.84 | 20.23 | 20.10 |
| | | 2502.5 (20775) | 19.67 | 20.14 | 19.86 |
| | 12RB-High (13) | 2567.5 (21425) | 19.98 | 20.31 | 20.23 |
| | | 2535 (21100) | 19.87 | 20.15 | 20.07 |
| | | 2502.5 (20775) | 19.77 | 20.31 | 20.07 |
| | 12RB-Middle (6) | 2567.5 (21425) | 20.17 | 20.38 | 20.34 |
| | | 2535 (21100) | 20.08 | 20.31 | 20.10 |
| | | 2502.5 (20775) | 19.99 | 20.12 | 20.18 |
| | 12RB-Low (0) | 2567.5 (21425) | 20.26 | 20.31 | 20.22 |
| | | 2535 (21100) | 20.03 | 20.35 | 20.09 |
| | | 2502.5 (20775) | 19.74 | 20.02 | 19.91 |
| | 25RB (0) | 2567.5 (21425) | 20.11 | 20.52 | 20.48 |
| | | 2535 (21100) | 20.00 | 20.18 | 20.11 |
| | | 2502.5 (20775) | 19.85 | 20.23 | 20.09 |
| 10MHz | 1RB-High (49) | 2565 (21400) | 20.02 | 20.22 | 20.20 |
| | | 2535 (21100) | 19.95 | 20.22 | 20.13 |
| | | 2505 (20800) | 19.79 | 20.28 | 20.11 |
| | 1RB-Middle (24) | 2565 (21400) | 20.13 | 20.55 | 20.46 |
| | | 2535 (21100) | 20.15 | 20.45 | 20.25 |
| | | 2505 (20800) | 19.89 | 20.30 | 20.08 |
| | 1RB-Low (0) | 2565 (21400) | 20.16 | 20.44 | 20.33 |
| | | 2535 (21100) | 19.77 | 20.05 | 20.08 |
| | | 2505 (20800) | 19.59 | 20.01 | 19.91 |
| | 25RB-High (25) | 2565 (21400) | 20.22 | 20.47 | 20.42 |
| | | 2535 (21100) | 20.11 | 20.41 | 20.32 |
| | | 2505 (20800) | 19.85 | 20.26 | 20.25 |
| | 25RB-Middle (12) | 2565 (21400) | 20.02 | 20.52 | 20.47 |
| | | 2535 (21100) | 20.17 | 20.38 | 20.31 |
| | | 2505 (20800) | 19.96 | 20.17 | 20.03 |
| | 25RB-Low (0) | 2565 (21400) | 20.23 | 20.34 | 20.42 |
| | | 2535 (21100) | 20.08 | 20.33 | 20.23 |
| | | 2505 (20800) | 19.93 | 20.21 | 19.85 |
| | 50RB (0) | 2565 (21400) | 20.16 | 20.35 | 20.31 |
| | | 2535 (21100) | 19.88 | 20.23 | 20.29 |
| | | 2505 (20800) | 19.88 | 20.19 | 19.96 |

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|---|---|---|---|---|---|
| 15MHz | 1RB-High (74) | 2562.5 (21375) | 20.00 | 20.29 | 20.32 |
| | | 2535 (21100) | 19.92 | 20.15 | 20.15 |
| | | 2507.5 (20825) | 19.82 | 20.18 | 20.03 |
| | 1RB-Middle (37) | 2562.5 (21375) | 20.19 | 20.53 | 20.54 |
| | | 2535 (21100) | 20.11 | 20.40 | 20.39 |
| | | 2507.5 (20825) | 19.81 | 20.21 | 20.15 |
| | 1RB-Low (0) | 2562.5 (21375) | 20.09 | 20.18 | 20.36 |
| | | 2535 (21100) | 19.85 | 20.04 | 20.10 |
| | | 2507.5 (20825) | 19.61 | 20.09 | 20.04 |
| | 36RB-High (38) | 2562.5 (21375) | 19.92 | 20.29 | 20.45 |
| | | 2535 (21100) | 19.88 | 20.26 | 20.11 |
| | | 2507.5 (20825) | 19.92 | 20.23 | 20.16 |
| | 36RB-Middle (19) | 2562.5 (21375) | 20.09 | 20.53 | 20.52 |
| | | 2535 (21100) | 20.13 | 20.27 | 20.12 |
| | | 2507.5 (20825) | 19.76 | 20.20 | 20.01 |
| | 36RB-Low (0) | 2562.5 (21375) | 20.26 | 20.56 | 20.47 |
| | | 2535 (21100) | 20.13 | 20.21 | 20.19 |
| | | 2507.5 (20825) | 19.81 | 20.03 | 20.12 |
| | 75RB (0) | 2562.5 (21375) | 20.05 | 20.43 | 20.26 |
| | | 2535 (21100) | 20.06 | 20.27 | 20.14 |
| | | 2507.5 (20825) | 19.83 | 19.97 | 20.03 |
| 20MHz | 1RB-High (99) | 2560 (21350) | 20.00 | 20.29 | 20.23 |
| | | 2535 (21100) | 20.01 | 20.30 | 20.24 |
| | | 2510 (20850) | 19.85 | 20.14 | 20.08 |
| | 1RB-Middle (50) | 2560 (21350) | 20.22 | 20.52 | 20.46 |
| | | 2535 (21100) | 20.08 | 20.37 | 20.31 |
| | | 2510 (20850) | 19.91 | 20.20 | 20.14 |
| | 1RB-Low (0) | 2560 (21350) | 20.03 | 20.32 | 20.26 |
| | | 2535 (21100) | 19.83 | 20.11 | 20.06 |
| | | 2510 (20850) | 19.73 | 20.01 | 19.95 |
| | 50RB-High (50) | 2560 (21350) | 20.07 | 20.36 | 20.30 |
| | | 2535 (21100) | 19.98 | 20.27 | 20.21 |
| | | 2510 (20850) | 19.92 | 20.21 | 20.15 |
| | 50RB-Middle (25) | 2560 (21350) | 20.17 | 20.47 | 20.40 |
| | | 2535 (21100) | 20.02 | 20.31 | 20.25 |
| | | 2510 (20850) | 19.89 | 20.18 | 20.12 |
| | 50RB-Low (0) | 2560 (21350) | 20.12 | 20.41 | 20.35 |
| | | 2535 (21100) | 19.99 | 20.28 | 20.22 |
| | | 2510 (20850) | 19.78 | 20.06 | 20.00 |
| | 100RB (0) | 2560 (21350) | 20.11 | 20.40 | 20.34 |
| | | 2535 (21100) | 19.98 | 20.27 | 20.21 |
| | | 2510 (20850) | 19.83 | 20.11 | 20.06 |

| LTE Band12-Power Level A1/B1/C1 | | | | | |
|---|---|---|---|---|---|
| **BANDWIDTH** | **Number of RBs** | **Frequency** | **QPSK** | **16QAM** | **64QAM** |
| 1.4MHz | 1RB-High (5) | 715.3 (23173) | 23.88 | 23.15 | 22.00 |
| | | 707.5 (23095) | 23.77 | 23.10 | 21.99 |
| | | 699.7 (23017) | 23.85 | 23.15 | 21.95 |
| | 1RB-Middle (3) | 715.3 (23173) | 23.88 | 23.13 | 22.01 |
| | | 707.5 (23095) | 23.83 | 22.99 | 21.94 |
| | | 699.7 (23017) | 23.90 | 23.10 | 21.99 |
| | 1RB-Low (0) | 715.3 (23173) | 23.81 | 23.15 | 21.93 |
| | | 707.5 (23095) | 23.82 | 23.05 | 22.00 |
| | | 699.7 (23017) | 23.83 | 23.13 | 22.00 |
| | 3RB-High (3) | 715.3 (23173) | 23.92 | 22.87 | 21.94 |
| | | 707.5 (23095) | 23.79 | 22.77 | 21.82 |
| | | 699.7 (23017) | 23.87 | 22.85 | 21.89 |
| | 3RB-Middle (1) | 715.3 (23173) | 23.89 | 22.85 | 21.90 |
| | | 707.5 (23095) | 23.80 | 22.73 | 21.85 |
| | | 699.7 (23017) | 23.87 | 22.84 | 21.94 |
| | 3RB-Low (0) | 715.3 (23173) | 23.85 | 22.81 | 21.92 |
| | | 707.5 (23095) | 23.82 | 22.73 | 21.81 |
| | | 699.7 (23017) | 23.85 | 22.86 | 21.89 |
| | 6RB (0) | 715.3 (23173) | 22.87 | 21.91 | 20.78 |
| | | 707.5 (23095) | 22.81 | 21.85 | 20.73 |
| | | 699.7 (23017) | 22.85 | 21.87 | 20.78 |
| 3MHz | 1RB-High (14) | 714.5 (23165) | 23.90 | 23.07 | 22.02 |
| | | 707.5 (23095) | 23.76 | 23.02 | 21.90 |
| | | 700.5 (23025) | 23.82 | 23.05 | 21.88 |
| | 1RB-Middle (7) | 714.5 (23165) | 23.89 | 23.02 | 22.00 |
| | | 707.5 (23095) | 23.83 | 23.14 | 21.94 |
| | | 700.5 (23025) | 23.89 | 23.16 | 22.03 |
| | 1RB-Low (0) | 714.5 (23165) | 23.81 | 22.99 | 21.85 |
| | | 707.5 (23095) | 23.82 | 23.02 | 21.89 |
| | | 700.5 (23025) | 23.89 | 23.10 | 21.95 |
| | 8RB-High (7) | 714.5 (23165) | 22.83 | 21.85 | 20.82 |
| | | 707.5 (23095) | 22.77 | 21.85 | 20.79 |
| | | 700.5 (23025) | 22.83 | 21.85 | 20.78 |
| | 8RB-Middle (4) | 714.5 (23165) | 22.83 | 21.84 | 20.79 |
| | | 707.5 (23095) | 22.77 | 21.86 | 20.81 |
| | | 700.5 (23025) | 22.81 | 21.86 | 20.80 |
| | 8RB-Low (0) | 714.5 (23165) | 22.81 | 21.87 | 20.82 |
| | | 707.5 (23095) | 22.79 | 21.79 | 20.77 |
| | | 700.5 (23025) | 22.85 | 21.91 | 20.81 |
| | 15RB (0) | 714.5 (23165) | 22.82 | 21.84 | 20.78 |
| | | 707.5 (23095) | 22.71 | 21.80 | 20.73 |
| | | 700.5 (23025) | 22.83 | 21.79 | 20.75 |

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| 5MHz | 1RB-High (24) | 713.5 (23155) | 23.91 | 23.15 | 21.94 |
| | | 707.5 (23095) | 23.82 | 23.01 | 21.95 |
| | | 701.5 (23035) | 23.84 | 23.17 | 21.89 |
| | 1RB-Middle (12) | 713.5 (23155) | 23.79 | 23.08 | 21.92 |
| | | 707.5 (23095) | 23.83 | 23.15 | 21.99 |
| | | 701.5 (23035) | 23.87 | 23.16 | 22.03 |
| | 1RB-Low (0) | 713.5 (23155) | 23.81 | 23.06 | 21.97 |
| | | 707.5 (23095) | 23.91 | 23.13 | 22.06 |
| | | 701.5 (23035) | 23.91 | 23.19 | 22.00 |
| | 12RB-High (13) | 713.5 (23155) | 22.76 | 21.74 | 20.76 |
| | | 707.5 (23095) | 22.84 | 21.81 | 20.81 |
| | | 701.5 (23035) | 22.77 | 21.72 | 20.74 |
| | 12RB-Middle (6) | 713.5 (23155) | 22.77 | 21.76 | 20.77 |
| | | 707.5 (23095) | 22.79 | 21.77 | 20.74 |
| | | 701.5 (23035) | 22.82 | 21.82 | 20.83 |
| | 12RB-Low (0) | 713.5 (23155) | 22.89 | 21.86 | 20.91 |
| | | 707.5 (23095) | 22.76 | 21.75 | 20.72 |
| | | 701.5 (23035) | 22.91 | 21.90 | 20.91 |
| | 25RB (0) | 713.5 (23155) | 22.83 | 21.80 | 20.82 |
| | | 707.5 (23095) | 22.78 | 21.78 | 20.74 |
| | | 701.5 (23035) | 22.86 | 21.81 | 20.78 |
| 10MHz | 1RB-High (49) | 711 (23130) | 23.86 | 23.08 | 21.93 |
| | | 707.5 (23095) | 23.74 | 22.95 | 21.74 |
| | | 704 (23060) | 23.72 | 22.97 | 21.81 |
| | 1RB-Middle (24) | 711 (23130) | 23.81 | 23.05 | 21.84 |
| | | 707.5 (23095) | 23.85 | 23.04 | 21.95 |
| | | 704 (23060) | 23.86 | 23.03 | 21.99 |
| | 1RB-Low (0) | 711 (23130) | 23.82 | 23.09 | 21.88 |
| | | 707.5 (23095) | 23.82 | 23.04 | 21.95 |
| | | 704 (23060) | 23.92 | 23.10 | 21.93 |
| | 25RB-High (25) | 711 (23130) | 22.60 | 21.56 | 20.55 |
| | | 707.5 (23095) | 22.72 | 21.72 | 20.70 |
| | | 704 (23060) | 22.91 | 21.90 | 20.88 |
| | 25RB-Middle (12) | 711 (23130) | 22.74 | 21.74 | 20.70 |
| | | 707.5 (23095) | 22.73 | 21.74 | 20.73 |
| | | 704 (23060) | 22.78 | 21.79 | 20.77 |
| | 25RB-Low (0) | 711 (23130) | 22.62 | 21.64 | 20.55 |
| | | 707.5 (23095) | 22.68 | 21.65 | 20.64 |
| | | 704 (23060) | 22.93 | 21.93 | 20.84 |
| | 50RB (0) | 711 (23130) | 22.61 | 21.59 | 20.57 |
| | | 707.5 (23095) | 22.73 | 21.66 | 20.64 |
| | | 704 (23060) | 22.97 | 21.92 | 20.90 |

| LTE Band26-Power Level A1/B1/C1 | | | | | |
|---|---|---|---|---|---|
| **BANDWIDTH** | **Number of RBs** | **Frequency** | **QPSK** | **16QAM** | **64QAM** |
| 1.4MHz | 1RB-High (5) | 848.3 (27033) | 23.65 | 22.71 | 21.85 |
| | | 831.5 (26865) | 23.78 | 23.02 | 21.90 |
| | | 814.7 (26697) | 23.81 | 23.07 | 21.90 |
| | 1RB-Middle (3) | 848.3 (27033) | 23.67 | 22.78 | 21.77 |
| | | 831.5 (26865) | 23.78 | 23.06 | 21.86 |
| | | 814.7 (26697) | 23.82 | 23.02 | 22.02 |
| | 1RB-Low (0) | 848.3 (27033) | 23.69 | 22.76 | 21.82 |
| | | 831.5 (26865) | 23.80 | 23.02 | 21.93 |
| | | 814.7 (26697) | 23.86 | 23.09 | 21.93 |
| | 3RB-High (3) | 848.3 (27033) | 23.72 | 22.68 | 21.76 |
| | | 831.5 (26865) | 23.77 | 22.71 | 21.80 |
| | | 814.7 (26697) | 23.85 | 22.84 | 21.93 |
| | 3RB-Middle (1) | 848.3 (27033) | 23.73 | 22.77 | 21.78 |
| | | 831.5 (26865) | 23.79 | 22.83 | 21.84 |
| | | 814.7 (26697) | 23.84 | 22.91 | 21.87 |
| | 3RB-Low (0) | 848.3 (27033) | 23.68 | 22.73 | 21.71 |
| | | 831.5 (26865) | 23.80 | 22.82 | 21.86 |
| | | 814.7 (26697) | 23.83 | 22.84 | 21.86 |
| | 6RB (0) | 848.3 (27033) | 22.72 | 21.82 | 20.64 |
| | | 831.5 (26865) | 22.82 | 21.85 | 20.73 |
| | | 814.7 (26697) | 22.84 | 21.94 | 20.77 |
| 3MHz | 1RB-High (14) | 847.5 (27025) | 23.64 | 22.86 | 21.77 |
| | | 831.5 (26865) | 23.76 | 22.89 | 21.90 |
| | | 815.5 (26705) | 23.75 | 23.01 | 21.86 |
| | 1RB-Middle (7) | 847.5 (27025) | 23.68 | 22.86 | 21.80 |
| | | 831.5 (26865) | 23.75 | 23.05 | 21.90 |
| | | 815.5 (26705) | 23.74 | 23.02 | 21.95 |
| | 1RB-Low (0) | 847.5 (27025) | 23.68 | 22.90 | 21.77 |
| | | 831.5 (26865) | 23.80 | 23.05 | 21.92 |
| | | 815.5 (26705) | 23.80 | 22.99 | 21.87 |
| | 8RB-High (7) | 847.5 (27025) | 22.69 | 21.72 | 20.63 |
| | | 831.5 (26865) | 22.77 | 21.83 | 20.77 |
| | | 815.5 (26705) | 22.74 | 21.76 | 20.77 |
| | 8RB-Middle (4) | 847.5 (27025) | 22.68 | 21.73 | 20.69 |
| | | 831.5 (26865) | 22.72 | 21.85 | 20.72 |
| | | 815.5 (26705) | 22.73 | 21.76 | 20.76 |
| | 8RB-Low (0) | 847.5 (27025) | 22.66 | 21.72 | 20.69 |
| | | 831.5 (26865) | 22.77 | 21.86 | 20.78 |
| | | 815.5 (26705) | 22.73 | 21.81 | 20.75 |
| | 15RB (0) | 847.5 (27025) | 22.65 | 21.71 | 20.63 |
| | | 831.5 (26865) | 22.74 | 21.82 | 20.71 |
| | | 815.5 (26705) | 22.73 | 21.79 | 20.76 |

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|---|---|---|---|---|---|
| 5MHz | 1RB-High (24) | 846.5 (27015) | 23.67 | 22.86 | 21.78 |
| | | 831.5 (26865) | 23.80 | 23.02 | 21.88 |
| | | 816.5 (26715) | 23.87 | 23.05 | 21.87 |
| | 1RB-Middle (12) | 846.5 (27015) | 23.72 | 22.94 | 21.80 |
| | | 831.5 (26865) | 23.82 | 23.05 | 21.91 |
| | | 816.5 (26715) | 23.87 | 23.04 | 21.92 |
| | 1RB-Low (0) | 846.5 (27015) | 23.70 | 23.01 | 21.78 |
| | | 831.5 (26865) | 23.82 | 22.98 | 21.96 |
| | | 816.5 (26715) | 23.88 | 23.06 | 21.97 |
| | 12RB-High (13) | 846.5 (27015) | 22.59 | 21.57 | 20.59 |
| | | 831.5 (26865) | 22.74 | 21.69 | 20.70 |
| | | 816.5 (26715) | 22.80 | 21.78 | 20.75 |
| | 12RB-Middle (6) | 846.5 (27015) | 22.69 | 21.64 | 20.65 |
| | | 831.5 (26865) | 22.76 | 21.73 | 20.74 |
| | | 816.5 (26715) | 22.79 | 21.80 | 20.80 |
| | 12RB-Low (0) | 846.5 (27015) | 22.70 | 21.69 | 20.71 |
| | | 831.5 (26865) | 22.81 | 21.77 | 20.72 |
| | | 816.5 (26715) | 22.80 | 21.77 | 20.75 |
| | 25RB (0) | 846.5 (27015) | 22.69 | 21.70 | 20.67 |
| | | 831.5 (26865) | 22.78 | 21.79 | 20.75 |
| | | 816.5 (26715) | 22.83 | 21.80 | 20.75 |
| 10MHz | 1RB-High (49) | 844 (26990) | 23.67 | 22.75 | 21.76 |
| | | 831.5 (26865) | 23.78 | 22.90 | 21.86 |
| | | 820 (26750) | 23.78 | 22.93 | 21.83 |
| | 1RB-Middle (24) | 844 (26990) | 23.82 | 23.08 | 21.91 |
| | | 831.5 (26865) | 23.87 | 23.08 | 21.96 |
| | | 820 (26750) | 23.90 | 22.99 | 21.94 |
| | 1RB-Low (0) | 844 (26990) | 23.81 | 22.96 | 21.92 |
| | | 831.5 (26865) | 23.80 | 23.04 | 21.82 |
| | | 820 (26750) | 23.87 | 23.10 | 22.00 |
| | 25RB-High (25) | 844 (26990) | 22.69 | 21.70 | 20.68 |
| | | 831.5 (26865) | 22.76 | 21.78 | 20.73 |
| | | 820 (26750) | 22.81 | 21.81 | 20.74 |
| | 25RB-Middle (12) | 844 (26990) | 22.74 | 21.72 | 20.72 |
| | | 831.5 (26865) | 22.76 | 21.76 | 20.76 |
| | | 820 (26750) | 22.84 | 21.87 | 20.78 |
| | 25RB-Low (0) | 844 (26990) | 22.79 | 21.78 | 20.83 |
| | | 831.5 (26865) | 22.79 | 21.81 | 20.77 |
| | | 820 (26750) | 22.83 | 21.83 | 20.80 |
| | 50RB (0) | 844 (26990) | 22.73 | 21.75 | 20.69 |
| | | 831.5 (26865) | 22.74 | 21.77 | 20.71 |
| | | 820 (26750) | 22.83 | 21.75 | 20.79 |

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|---|---|---|---|---|---|
| 15MHz | 1RB-High (74) | 841.5 (26965) | 23.60 | 22.78 | 21.69 |
| | | 831.5 (26865) | 23.65 | 22.88 | 21.79 |
| | | 822.5 (26775) | 23.73 | 22.85 | 21.86 |
| | 1RB-Middle (37) | 841.5 (26965) | 23.76 | 23.01 | 21.85 |
| | | 831.5 (26865) | 23.77 | 22.95 | 21.82 |
| | | 822.5 (26775) | 23.78 | 22.87 | 21.90 |
| | 1RB-Low (0) | 841.5 (26965) | 23.71 | 22.94 | 21.84 |
| | | 831.5 (26865) | 23.74 | 22.91 | 21.83 |
| | | 822.5 (26775) | 23.77 | 22.94 | 21.93 |
| | 36RB-High (38) | 841.5 (26965) | 22.65 | 21.61 | 20.64 |
| | | 831.5 (26865) | 22.63 | 21.66 | 20.62 |
| | | 822.5 (26775) | 22.73 | 21.68 | 20.70 |
| | 36RB-Middle (19) | 841.5 (26965) | 22.73 | 21.69 | 20.68 |
| | | 831.5 (26865) | 22.70 | 21.66 | 20.70 |
| | | 822.5 (26775) | 22.73 | 21.73 | 20.71 |
| | 36RB-Low (0) | 841.5 (26965) | 22.77 | 21.79 | 20.77 |
| | | 831.5 (26865) | 22.73 | 21.72 | 20.73 |
| | | 822.5 (26775) | 22.73 | 21.76 | 20.75 |
| | 75RB (0) | 841.5 (26965) | 22.70 | 21.72 | 20.68 |
| | | 831.5 (26865) | 22.69 | 21.69 | 20.59 |
| | | 822.5 (26775) | 22.79 | 21.78 | 20.71 |

| LTE Band41-Power Level A1/B1/C1 | | | | | |
|---|---|---|---|---|---|
| **BANDWIDTH** | **Number of RBs** | **Frequency** | **QPSK** | **16QAM** | **64QAM** |
| 5MHz | 1RB-High (24) | 2687.5 (41565) | 24.15 | 23.34 | 21.80 |
| | | 2640.3(41093) | 23.88 | 23.11 | 21.58 |
| | | 2593 (40620) | 23.93 | 23.04 | 21.62 |
| | | 2545.8(40148) | 23.69 | 22.81 | 21.39 |
| | | 2498.5 (39675) | 24.01 | 23.12 | 21.73 |
| | 1RB-Middle (12) | 2687.5 (41565) | 24.21 | 23.36 | 21.85 |
| | | 2640.3(41093) | 23.97 | 23.13 | 21.65 |
| | | 2593 (40620) | 24.07 | 23.10 | 21.70 |
| | | 2545.8(40148) | 23.73 | 22.78 | 21.39 |
| | | 2498.5 (39675) | 24.14 | 23.17 | 21.76 |
| | 1RB-Low (0) | 2687.5 (41565) | 24.17 | 23.34 | 21.83 |
| | | 2640.3(41093) | 23.94 | 23.14 | 21.64 |
| | | 2593 (40620) | 23.98 | 23.11 | 21.71 |
| | | 2545.8(40148) | 23.72 | 22.80 | 21.41 |
| | | 2498.5 (39675) | 24.10 | 23.16 | 21.77 |
| | 12RB-High (13) | 2687.5 (41565) | 23.19 | 22.12 | 21.15 |
| | | 2640.3(41093) | 22.95 | 21.90 | 20.92 |
| | | 2593 (40620) | 22.84 | 21.93 | 20.97 |
| | | 2545.8(40148) | 22.62 | 21.73 | 20.76 |
| | | 2498.5 (39675) | 23.00 | 22.06 | 21.08 |
| | 12RB-Middle (6) | 2687.5 (41565) | 23.19 | 22.13 | 21.17 |
| | | 2640.3(41093) | 23.01 | 21.93 | 20.98 |
| | | 2593 (40620) | 22.92 | 21.98 | 21.07 |
| | | 2545.8(40148) | 22.62 | 21.72 | 20.75 |
| | | 2498.5 (39675) | 23.01 | 22.09 | 21.14 |
| | 12RB-Low (0) | 2687.5 (41565) | 23.27 | 22.18 | 21.21 |
| | | 2640.3(41093) | 23.00 | 21.95 | 21.04 |
| | | 2593 (40620) | 22.93 | 22.01 | 21.05 |
| | | 2545.8(40148) | 22.71 | 21.76 | 20.86 |
| | | 2498.5 (39675) | 23.05 | 22.09 | 21.19 |
| | 25RB (0) | 2687.5 (41565) | 23.22 | 22.19 | 21.23 |
| | | 2640.3(41093) | 23.01 | 22.02 | 21.06 |
| | | 2593 (40620) | 22.90 | 22.05 | 21.08 |
| | | 2545.8(40148) | 22.67 | 21.83 | 20.87 |
| | | 2498.5 (39675) | 23.02 | 22.16 | 21.17 |

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| 10MHz | 1RB-High (49) | 2685 (41540) | 24.11 | 23.30 | 21.78 |
| | | 2639(41080) | 23.89 | 23.08 | 21.57 |
| | | 2593 (40620) | 23.91 | 23.00 | 21.59 |
| | | 2547(40160) | 23.69 | 22.79 | 21.39 |
| | | 2501 (39700) | 23.99 | 23.06 | 21.67 |
| | 1RB-Middle (24) | 2685 (41540) | 24.15 | 23.33 | 21.83 |
| | | 2639(41080) | 23.89 | 23.11 | 21.60 |
| | | 2593 (40620) | 24.01 | 23.09 | 21.71 |
| | | 2547(40160) | 23.71 | 22.81 | 21.43 |
| | | 2501 (39700) | 24.02 | 23.10 | 21.73 |
| | 1RB-Low (0) | 2685 (41540) | 24.21 | 23.35 | 21.86 |
| | | 2639(41080) | 23.94 | 23.13 | 21.62 |
| | | 2593 (40620) | 24.00 | 23.09 | 21.69 |
| | | 2547(40160) | 23.71 | 22.83 | 21.42 |
| | | 2501 (39700) | 24.03 | 23.14 | 21.74 |
| | 25RB-High (25) | 2685 (41540) | 23.20 | 22.19 | 21.20 |
| | | 2639(41080) | 22.98 | 21.94 | 21.00 |
| | | 2593 (40620) | 22.89 | 22.02 | 21.09 |
| | | 2547(40160) | 22.67 | 21.81 | 20.83 |
| | | 2501 (39700) | 22.96 | 22.10 | 21.16 |
| | 25RB-Middle (12) | 2685 (41540) | 23.24 | 22.20 | 21.24 |
| | | 2639(41080) | 22.99 | 21.95 | 21.01 |
| | | 2593 (40620) | 22.93 | 22.04 | 21.09 |
| | | 2547(40160) | 22.67 | 21.80 | 20.84 |
| | | 2501 (39700) | 22.99 | 22.11 | 21.20 |
| | 25RB-Low (0) | 2685 (41540) | 23.23 | 22.24 | 21.24 |
| | | 2639(41080) | 23.01 | 21.98 | 21.03 |
| | | 2593 (40620) | 22.98 | 22.12 | 21.15 |
| | | 2547(40160) | 22.69 | 21.82 | 20.87 |
| | | 2501 (39700) | 23.00 | 22.11 | 21.22 |
| | 50RB (0) | 2685 (41540) | 23.24 | 22.22 | 21.20 |
| | | 2639(41080) | 23.00 | 22.05 | 20.97 |
| | | 2593 (40620) | 22.94 | 22.10 | 21.08 |
| | | 2547(40160) | 22.72 | 21.83 | 20.79 |
| | | 2501 (39700) | 23.01 | 22.16 | 21.15 |

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| 15MHz | 1RB-High (74) | 2682.5 (41515) | 23.93 | 23.20 | 21.69 |
| | | 2637.8(41068) | 23.74 | 22.98 | 21.46 |
| | | 2593 (40620) | 23.78 | 22.88 | 21.53 |
| | | 2548.3(40173) | 23.61 | 22.69 | 21.34 |
| | | 2503.5 (39725) | 23.78 | 22.92 | 21.55 |
| | 1RB-Middle (37) | 2682.5 (41515) | 24.04 | 23.30 | 21.79 |
| | | 2637.8(41068) | 23.87 | 23.07 | 21.57 |
| | | 2593 (40620) | 23.90 | 23.03 | 21.65 |
| | | 2548.3(40173) | 23.68 | 22.79 | 21.42 |
| | | 2503.5 (39725) | 23.96 | 23.01 | 21.67 |
| | 1RB-Low (0) | 2682.5 (41515) | 24.02 | 23.25 | 21.77 |
| | | 2637.8(41068) | 23.78 | 23.04 | 21.55 |
| | | 2593 (40620) | 23.85 | 22.95 | 21.61 |
| | | 2548.3(40173) | 23.60 | 22.69 | 21.33 |
| | | 2503.5 (39725) | 23.93 | 23.00 | 21.69 |
| | 36RB-High (38) | 2682.5 (41515) | 23.08 | 22.09 | 21.11 |
| | | 2637.8(41068) | 22.86 | 21.83 | 20.85 |
| | | 2593 (40620) | 22.78 | 21.91 | 20.91 |
| | | 2548.3(40173) | 22.63 | 21.74 | 20.77 |
| | | 2503.5 (39725) | 22.88 | 22.02 | 20.96 |
| | 36RB-Middle (19) | 2682.5 (41515) | 23.13 | 22.11 | 21.11 |
| | | 2637.8(41068) | 22.91 | 21.91 | 20.90 |
| | | 2593 (40620) | 22.81 | 21.91 | 20.95 |
| | | 2548.3(40173) | 22.61 | 21.74 | 20.75 |
| | | 2503.5 (39725) | 22.89 | 21.97 | 21.00 |
| | 36RB-Low (0) | 2682.5 (41515) | 23.15 | 22.10 | 21.13 |
| | | 2637.8(41068) | 22.90 | 21.94 | 20.91 |
| | | 2593 (40620) | 22.87 | 21.96 | 21.02 |
| | | 2548.3(40173) | 22.58 | 21.74 | 20.74 |
| | | 2503.5 (39725) | 22.87 | 22.04 | 21.03 |
| | 75RB (0) | 2682.5 (41515) | 23.15 | 22.17 | 21.15 |
| | | 2637.8(41068) | 22.96 | 21.97 | 20.91 |
| | | 2593 (40620) | 22.85 | 22.02 | 20.99 |
| | | 2548.3(40173) | 22.63 | 21.79 | 20.80 |
| | | 2503.5 (39725) | 22.89 | 22.01 | 21.06 |

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| 20MHz | 1RB-High (99) | 2680 (41490) | 23.80 | 23.03 | 21.53 |
| | | 2636.5(41055) | 23.67 | 22.84 | 21.33 |
| | | 2593 (40620) | 23.58 | 22.67 | 21.30 |
| | | 2549.5(40185) | 23.47 | 22.54 | 21.15 |
| | | 2506 (39750) | 23.58 | 22.62 | 21.26 |
| | 1RB-Middle (50) | 2680 (41490) | 24.01 | 23.18 | 21.67 |
| | | 2636.5(41055) | 23.80 | 22.94 | 21.47 |
| | | 2593 (40620) | 23.84 | 22.90 | 21.50 |
| | | 2549.5(40185) | 23.56 | 22.60 | 21.21 |
| | | 2506 (39750) | 23.76 | 22.84 | 21.48 |
| | 1RB-Low (0) | 2680 (41490) | 23.90 | 23.09 | 21.60 |
| | | 2636.5(41055) | 23.69 | 22.88 | 21.38 |
| | | 2593 (40620) | 23.69 | 22.76 | 21.40 |
| | | 2549.5(40185) | 23.38 | 22.47 | 21.12 |
| | | 2506 (39750) | 23.70 | 22.80 | 21.43 |
| | 50RB-High (50) | 2680 (41490) | 23.02 | 22.04 | 20.97 |
| | | 2636.5(41055) | 22.83 | 21.82 | 20.79 |
| | | 2593 (40620) | 22.71 | 21.85 | 20.76 |
| | | 2549.5(40185) | 22.46 | 21.64 | 20.63 |
| | | 2506 (39750) | 22.62 | 21.82 | 20.76 |
| | 50RB-Middle (25) | 2680 (41490) | 23.10 | 22.11 | 21.07 |
| | | 2636.5(41055) | 22.89 | 21.89 | 20.84 |
| | | 2593 (40620) | 22.73 | 21.88 | 20.88 |
| | | 2549.5(40185) | 22.55 | 21.64 | 20.62 |
| | | 2506 (39750) | 22.76 | 21.90 | 20.88 |
| | 50RB-Low (0) | 2680 (41490) | 23.06 | 22.11 | 21.05 |
| | | 2636.5(41055) | 22.94 | 21.93 | 20.88 |
| | | 2593 (40620) | 22.79 | 21.92 | 20.92 |
| | | 2549.5(40185) | 22.48 | 21.64 | 20.61 |
| | | 2506 (39750) | 22.77 | 21.93 | 20.86 |
| | 100RB (0) | 2680 (41490) | 23.05 | 22.09 | 21.05 |
| | | 2636.5(41055) | 22.86 | 21.88 | 20.82 |
| | | 2593 (40620) | 22.76 | 21.91 | 20.88 |
| | | 2549.5(40185) | 22.47 | 21.62 | 20.64 |
| | | 2506 (39750) | 22.69 | 21.83 | 20.76 |

| LTE Band66 ANT0-Power Level A1/B1 | | | | | |
|---|---|---|---|---|---|
| **BANDWIDTH** | **Number of RBs** | **Frequency** | **QPSK** | **16QAM** | **64QAM** |
| 1.4MHz | 1RB-High (5) | 1779.3 (132665) | 22.84 | 21.90 | 21.14 |
| | | 1745 (132322) | 22.89 | 22.00 | 21.10 |
| | | 1710.7 (131979) | 22.78 | 22.02 | 21.05 |
| | 1RB-Middle (3) | 1779.3 (132665) | 22.87 | 22.05 | 21.07 |
| | | 1745 (132322) | 22.85 | 22.08 | 21.08 |
| | | 1710.7 (131979) | 22.78 | 21.96 | 21.05 |
| | 1RB-Low (0) | 1779.3 (132665) | 22.87 | 22.06 | 21.09 |
| | | 1745 (132322) | 22.86 | 22.01 | 21.12 |
| | | 1710.7 (131979) | 22.80 | 21.89 | 21.00 |
| | 3RB-High (3) | 1779.3 (132665) | 22.93 | 21.90 | 21.02 |
| | | 1745 (132322) | 22.88 | 21.84 | 21.06 |
| | | 1710.7 (131979) | 22.75 | 21.78 | 20.92 |
| | 3RB-Middle (1) | 1779.3 (132665) | 22.89 | 21.89 | 21.04 |
| | | 1745 (132322) | 22.86 | 21.82 | 21.04 |
| | | 1710.7 (131979) | 22.77 | 21.70 | 20.91 |
| | 3RB-Low (0) | 1779.3 (132665) | 22.89 | 21.84 | 21.08 |
| | | 1745 (132322) | 22.88 | 21.83 | 21.04 |
| | | 1710.7 (131979) | 22.79 | 21.73 | 20.93 |
| | 6RB (0) | 1779.3 (132665) | 21.87 | 21.02 | 19.95 |
| | | 1745 (132322) | 21.82 | 21.04 | 19.89 |
| | | 1710.7 (131979) | 21.75 | 20.93 | 19.80 |
| 3MHz | 1RB-High (14) | 1778.5 (132657) | 22.84 | 21.96 | 21.06 |
| | | 1745 (132322) | 22.90 | 21.98 | 21.05 |
| | | 1711.5 (131987) | 22.75 | 21.91 | 20.99 |
| | 1RB-Middle (7) | 1778.5 (132657) | 22.90 | 21.97 | 21.11 |
| | | 1745 (132322) | 22.86 | 21.97 | 21.23 |
| | | 1711.5 (131987) | 22.82 | 21.88 | 20.96 |
| | 1RB-Low (0) | 1778.5 (132657) | 22.87 | 22.04 | 21.09 |
| | | 1745 (132322) | 22.88 | 22.09 | 21.12 |
| | | 1711.5 (131987) | 22.80 | 21.91 | 20.98 |
| | 8RB-High (7) | 1778.5 (132657) | 21.82 | 21.02 | 20.00 |
| | | 1745 (132322) | 21.81 | 20.97 | 19.93 |
| | | 1711.5 (131987) | 21.73 | 20.93 | 19.90 |
| | 8RB-Middle (4) | 1778.5 (132657) | 21.86 | 21.07 | 20.03 |
| | | 1745 (132322) | 21.79 | 21.00 | 19.97 |
| | | 1711.5 (131987) | 21.70 | 20.88 | 19.88 |
| | 8RB-Low (0) | 1778.5 (132657) | 21.86 | 21.09 | 20.02 |
| | | 1745 (132322) | 21.82 | 21.04 | 19.97 |
| | | 1711.5 (131987) | 21.73 | 20.91 | 19.86 |
| | 15RB (0) | 1778.5 (132657) | 21.84 | 21.04 | 19.94 |
| | | 1745 (132322) | 21.77 | 20.97 | 19.93 |
| | | 1711.5 (131987) | 21.73 | 20.91 | 19.84 |

| LTE Band66 ANT0-Power Level C1 | | | | | |
|---|---|---|---|---|---|
| **BANDWIDTH** | **Number of RBs** | **Frequency** | **QPSK** | **16QAM** | **64QAM** |
| 1.4MHz | 1RB-High (5) | 1779.3 (132665) | 21.80 | 21.41 | 21.40 |
| | | 1745 (132322) | 21.71 | 21.62 | 21.29 |
| | | 1710.7 (131979) | 21.65 | 21.22 | 21.41 |
| | 1RB-Middle (3) | 1779.3 (132665) | 21.84 | 21.41 | 21.54 |
| | | 1745 (132322) | 21.72 | 21.58 | 21.50 |
| | | 1710.7 (131979) | 21.66 | 21.25 | 21.63 |
| | 1RB-Low (0) | 1779.3 (132665) | 21.83 | 21.41 | 21.32 |
| | | 1745 (132322) | 21.73 | 21.61 | 21.38 |
| | | 1710.7 (131979) | 21.67 | 21.20 | 21.39 |
| | 3RB-High (3) | 1779.3 (132665) | 21.76 | 21.34 | 21.13 |
| | | 1745 (132322) | 21.68 | 21.42 | 21.00 |
| | | 1710.7 (131979) | 21.69 | 21.31 | 20.95 |
| | 3RB-Middle (1) | 1779.3 (132665) | 21.77 | 21.32 | 21.18 |
| | | 1745 (132322) | 21.69 | 21.42 | 21.05 |
| | | 1710.7 (131979) | 21.69 | 21.34 | 20.96 |
| | 3RB-Low (0) | 1779.3 (132665) | 21.76 | 21.33 | 21.09 |
| | | 1745 (132322) | 21.69 | 21.43 | 20.98 |
| | | 1710.7 (131979) | 21.67 | 21.31 | 21.09 |
| | 6RB (0) | 1779.3 (132665) | 21.29 | 21.43 | 20.92 |
| | | 1745 (132322) | 21.22 | 21.10 | 21.15 |
| | | 1710.7 (131979) | 21.19 | 21.36 | 21.09 |
| 3MHz | 1RB-High (14) | 1778.5 (132657) | 21.73 | 21.16 | 21.25 |
| | | 1745 (132322) | 21.70 | 21.62 | 21.39 |
| | | 1711.5 (131987) | 21.63 | 21.16 | 21.51 |
| | 1RB-Middle (7) | 1778.5 (132657) | 21.74 | 21.17 | 21.29 |
| | | 1745 (132322) | 21.74 | 21.60 | 21.44 |
| | | 1711.5 (131987) | 21.67 | 21.24 | 21.49 |
| | 1RB-Low (0) | 1778.5 (132657) | 21.67 | 21.17 | 21.45 |
| | | 1745 (132322) | 21.71 | 21.59 | 21.27 |
| | | 1711.5 (131987) | 21.67 | 21.24 | 21.51 |
| | 8RB-High (7) | 1778.5 (132657) | 21.23 | 21.36 | 21.05 |
| | | 1745 (132322) | 21.19 | 21.28 | 20.97 |
| | | 1711.5 (131987) | 21.17 | 21.23 | 21.08 |
| | 8RB-Middle (4) | 1778.5 (132657) | 21.27 | 21.40 | 21.15 |
| | | 1745 (132322) | 21.20 | 21.28 | 20.95 |
| | | 1711.5 (131987) | 21.19 | 21.27 | 21.04 |
| | 8RB-Low (0) | 1778.5 (132657) | 21.26 | 21.37 | 21.09 |
| | | 1745 (132322) | 21.19 | 21.32 | 21.07 |
| | | 1711.5 (131987) | 21.20 | 21.27 | 21.00 |
| | 15RB (0) | 1778.5 (132657) | 21.26 | 21.32 | 21.14 |
| | | 1745 (132322) | 21.18 | 21.27 | 21.07 |
| | | 1711.5 (131987) | 21.24 | 21.19 | 21.03 |

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| 5MHz | 1RB-High (24) | 1777.5 (132647) | 22.92 | 22.03 | 21.05 |
| | | 1745 (132322) | 22.90 | 22.02 | 21.15 |
| | | 1712.5 (131997) | 22.81 | 22.02 | 21.03 |
| | 1RB-Middle (12) | 1777.5 (132647) | 22.89 | 22.05 | 21.14 |
| | | 1745 (132322) | 23.00 | 22.06 | 21.10 |
| | | 1712.5 (131997) | 22.85 | 21.91 | 21.07 |
| | 1RB-Low (0) | 1777.5 (132647) | 22.88 | 22.10 | 21.09 |
| | | 1745 (132322) | 22.93 | 22.09 | 21.14 |
| | | 1712.5 (131997) | 22.87 | 21.96 | 21.06 |
| | 12RB-High (13) | 1777.5 (132647) | 21.81 | 20.94 | 19.95 |
| | | 1745 (132322) | 21.79 | 20.92 | 19.93 |
| | | 1712.5 (131997) | 21.76 | 20.85 | 19.87 |
| | 12RB-Middle (6) | 1777.5 (132647) | 21.91 | 20.99 | 19.98 |
| | | 1745 (132322) | 21.84 | 20.94 | 19.97 |
| | | 1712.5 (131997) | 21.78 | 20.91 | 19.93 |
| | 12RB-Low (0) | 1777.5 (132647) | 21.93 | 21.04 | 20.10 |
| | | 1745 (132322) | 21.87 | 20.98 | 20.01 |
| | | 1712.5 (131997) | 21.75 | 20.89 | 19.91 |
| | 25RB (0) | 1777.5 (132647) | 21.92 | 21.02 | 19.98 |
| | | 1745 (132322) | 21.82 | 20.99 | 19.96 |
| | | 1712.5 (131997) | 21.79 | 20.95 | 19.91 |
| 10MHz | 1RB-High (49) | 1775 (132622) | 22.91 | 22.08 | 21.10 |
| | | 1745 (132322) | 22.92 | 22.01 | 21.12 |
| | | 1715 (132022) | 22.82 | 22.08 | 21.00 |
| | 1RB-Middle (24) | 1775 (132622) | 22.95 | 22.14 | 21.10 |
| | | 1745 (132322) | 22.95 | 22.04 | 21.10 |
| | | 1715 (132022) | 22.82 | 22.03 | 21.06 |
| | 1RB-Low (0) | 1775 (132622) | 22.90 | 22.09 | 21.06 |
| | | 1745 (132322) | 22.93 | 22.00 | 21.09 |
| | | 1715 (132022) | 22.82 | 21.90 | 21.04 |
| | 25RB-High (25) | 1775 (132622) | 21.84 | 20.99 | 19.95 |
| | | 1745 (132322) | 21.87 | 20.97 | 19.97 |
| | | 1715 (132022) | 21.80 | 20.97 | 19.96 |
| | 25RB-Middle (12) | 1775 (132622) | 21.90 | 20.97 | 19.98 |
| | | 1745 (132322) | 21.86 | 21.03 | 19.97 |
| | | 1715 (132022) | 21.75 | 20.91 | 19.89 |
| | 25RB-Low (0) | 1775 (132622) | 21.94 | 21.09 | 20.05 |
| | | 1745 (132322) | 21.91 | 21.05 | 19.98 |
| | | 1715 (132022) | 21.77 | 20.91 | 19.88 |
| | 50RB (0) | 1775 (132622) | 21.87 | 21.01 | 19.98 |
| | | 1745 (132322) | 21.90 | 21.01 | 19.98 |
| | | 1715 (132022) | 21.78 | 20.94 | 19.88 |

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| 5MHz | 1RB-High (24) | 1777.5 (132647) | 21.87 | 21.54 | 21.38 |
| | | 1745 (132322) | 21.78 | 21.82 | 21.47 |
| | | 1712.5 (131997) | 21.79 | 21.25 | 21.44 |
| | 1RB-Middle (12) | 1777.5 (132647) | 21.87 | 21.54 | 21.30 |
| | | 1745 (132322) | 21.79 | 21.84 | 21.33 |
| | | 1712.5 (131997) | 21.78 | 21.28 | 21.67 |
| | 1RB-Low (0) | 1777.5 (132647) | 21.84 | 21.52 | 21.32 |
| | | 1745 (132322) | 21.79 | 21.80 | 21.22 |
| | | 1712.5 (131997) | 21.76 | 21.25 | 21.41 |
| | 12RB-High (13) | 1777.5 (132647) | 21.18 | 21.29 | 20.90 |
| | | 1745 (132322) | 21.21 | 21.29 | 21.06 |
| | | 1712.5 (131997) | 21.21 | 21.24 | 20.92 |
| | 12RB-Middle (6) | 1777.5 (132647) | 21.25 | 21.33 | 21.10 |
| | | 1745 (132322) | 21.23 | 21.34 | 21.16 |
| | | 1712.5 (131997) | 21.21 | 21.26 | 20.95 |
| | 12RB-Low (0) | 1777.5 (132647) | 21.34 | 21.38 | 20.90 |
| | | 1745 (132322) | 21.25 | 21.36 | 21.01 |
| | | 1712.5 (131997) | 21.23 | 21.27 | 20.96 |
| | 25RB (0) | 1777.5 (132647) | 21.27 | 21.35 | 21.00 |
| | | 1745 (132322) | 21.23 | 21.33 | 21.14 |
| | | 1712.5 (131997) | 21.22 | 21.19 | 21.17 |
| 10MHz | 1RB-High (49) | 1775 (132622) | 21.66 | 21.12 | 21.24 |
| | | 1745 (132322) | 21.72 | 21.59 | 21.38 |
| | | 1715 (132022) | 21.70 | 21.22 | 21.66 |
| | 1RB-Middle (24) | 1775 (132622) | 21.66 | 21.18 | 21.34 |
| | | 1745 (132322) | 21.74 | 21.59 | 21.53 |
| | | 1715 (132022) | 21.69 | 21.22 | 21.66 |
| | 1RB-Low (0) | 1775 (132622) | 21.63 | 21.13 | 21.31 |
| | | 1745 (132322) | 21.68 | 21.54 | 21.26 |
| | | 1715 (132022) | 21.65 | 21.16 | 21.48 |
| | 25RB-High (25) | 1775 (132622) | 21.20 | 21.25 | 21.00 |
| | | 1745 (132322) | 21.25 | 21.31 | 20.98 |
| | | 1715 (132022) | 21.24 | 21.39 | 21.13 |
| | 25RB-Middle (12) | 1775 (132622) | 21.29 | 21.35 | 21.02 |
| | | 1745 (132322) | 21.18 | 21.28 | 21.14 |
| | | 1715 (132022) | 21.24 | 21.33 | 20.99 |
| | 25RB-Low (0) | 1775 (132622) | 21.27 | 21.31 | 21.08 |
| | | 1745 (132322) | 21.27 | 21.31 | 21.06 |
| | | 1715 (132022) | 21.17 | 21.32 | 21.04 |
| | 50RB (0) | 1775 (132622) | 21.27 | 21.24 | 20.97 |
| | | 1745 (132322) | 21.27 | 21.31 | 20.89 |
| | | 1715 (132022) | 21.23 | 21.28 | 20.91 |

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| 15MHz | 1RB-High (74) | 1772.5 (132597) | 22.81 | 22.01 | 20.97 |
| | | 1745 (132322) | 22.84 | 22.00 | 20.98 |
| | | 1717.5 (132047) | 22.72 | 21.93 | 20.95 |
| | 1RB-Middle (37) | 1772.5 (132597) | 22.88 | 22.01 | 21.10 |
| | | 1745 (132322) | 22.89 | 21.97 | 21.14 |
| | | 1717.5 (132047) | 22.82 | 22.04 | 21.04 |
| | 1RB-Low (0) | 1772.5 (132597) | 22.82 | 21.97 | 21.13 |
| | | 1745 (132322) | 22.86 | 21.91 | 21.10 |
| | | 1717.5 (132047) | 22.74 | 21.95 | 20.99 |
| | 36RB-High (38) | 1772.5 (132597) | 21.78 | 20.95 | 19.97 |
| | | 1745 (132322) | 21.82 | 20.95 | 19.92 |
| | | 1717.5 (132047) | 21.80 | 20.96 | 19.94 |
| | 36RB-Middle (19) | 1772.5 (132597) | 21.85 | 20.97 | 19.93 |
| | | 1745 (132322) | 21.85 | 20.94 | 19.97 |
| | | 1717.5 (132047) | 21.78 | 20.87 | 19.96 |
| | 36RB-Low (0) | 1772.5 (132597) | 21.89 | 21.01 | 20.01 |
| | | 1745 (132322) | 21.86 | 20.97 | 20.00 |
| | | 1717.5 (132047) | 21.71 | 20.86 | 19.83 |
| | 75RB (0) | 1772.5 (132597) | 21.85 | 20.97 | 19.97 |
| | | 1745 (132322) | 21.86 | 20.94 | 19.94 |
| | | 1717.5 (132047) | 21.79 | 20.94 | 19.88 |
| 20MHz | 1RB-High (99) | 1770 (132572) | 22.60 | 21.79 | 20.91 |
| | | 1745 (132322) | 22.76 | 21.94 | 20.96 |
| | | 1720 (132072) | 22.67 | 21.83 | 20.88 |
| | 1RB-Middle (50) | 1770 (132572) | 22.74 | 21.94 | 20.92 |
| | | 1745 (132322) | 22.85 | 21.94 | 20.97 |
| | | 1720 (132072) | 22.77 | 21.94 | 20.87 |
| | 1RB-Low (0) | 1770 (132572) | 22.69 | 21.77 | 20.91 |
| | | 1745 (132322) | 22.66 | 21.81 | 20.86 |
| | | 1720 (132072) | 22.61 | 21.72 | 20.86 |
| | 50RB-High (50) | 1770 (132572) | 21.61 | 20.82 | 19.79 |
| | | 1745 (132322) | 21.73 | 20.88 | 19.85 |
| | | 1720 (132072) | 21.76 | 20.88 | 19.84 |
| | 50RB-Middle (25) | 1770 (132572) | 21.74 | 20.90 | 19.89 |
| | | 1745 (132322) | 21.77 | 20.92 | 19.89 |
| | | 1720 (132072) | 21.72 | 20.81 | 19.79 |
| | 50RB-Low (0) | 1770 (132572) | 21.77 | 20.94 | 19.95 |
| | | 1745 (132322) | 21.81 | 20.94 | 19.86 |
| | | 1720 (132072) | 21.70 | 20.81 | 19.79 |
| | 100RB (0) | 1770 (132572) | 21.70 | 20.84 | 19.82 |
| | | 1745 (132322) | 21.78 | 20.90 | 19.82 |
| | | 1720 (132072) | 21.74 | 20.80 | 19.83 |

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| 15MHz | 1RB-High (74) | 1772.5 (132597) | 21.61 | 21.52 | 21.30 |
| | | 1745 (132322) | 21.55 | 21.05 | 21.30 |
| | | 1717.5 (132047) | 21.65 | 21.52 | 21.66 |
| | 1RB-Middle (37) | 1772.5 (132597) | 21.68 | 21.57 | 21.52 |
| | | 1745 (132322) | 21.60 | 21.10 | 21.51 |
| | | 1717.5 (132047) | 21.73 | 21.57 | 21.54 |
| | 1RB-Low (0) | 1772.5 (132597) | 21.60 | 21.54 | 21.19 |
| | | 1745 (132322) | 21.59 | 21.05 | 21.23 |
| | | 1717.5 (132047) | 21.59 | 21.49 | 21.56 |
| | 36RB-High (38) | 1772.5 (132597) | 21.17 | 21.20 | 21.06 |
| | | 1745 (132322) | 21.10 | 21.15 | 20.94 |
| | | 1717.5 (132047) | 21.18 | 21.28 | 21.14 |
| | 36RB-Middle (19) | 1772.5 (132597) | 21.17 | 21.19 | 21.18 |
| | | 1745 (132322) | 21.19 | 21.19 | 21.14 |
| | | 1717.5 (132047) | 21.12 | 21.24 | 21.14 |
| | 36RB-Low (0) | 1772.5 (132597) | 21.15 | 21.21 | 21.00 |
| | | 1745 (132322) | 21.16 | 21.19 | 20.96 |
| | | 1717.5 (132047) | 21.14 | 21.19 | 21.03 |
| | 75RB (0) | 1772.5 (132597) | 21.17 | 21.20 | 20.89 |
| | | 1745 (132322) | 21.18 | 21.19 | 20.95 |
| | | 1717.5 (132047) | 21.17 | 21.18 | 21.17 |
| 20MHz | 1RB-High (99) | 1770 (132572) | 21.53 | 21.36 | 21.31 |
| | | 1745 (132322) | 21.46 | 21.35 | 21.23 |
| | | 1720 (132072) | 21.49 | 21.53 | 21.53 |
| | 1RB-Middle (50) | 1770 (132572) | 21.59 | 21.39 | 21.54 |
| | | 1745 (132322) | 21.57 | 21.47 | 21.59 |
| | | 1720 (132072) | 21.52 | 21.54 | 21.66 |
| | 1RB-Low (0) | 1770 (132572) | 21.43 | 21.34 | 21.22 |
| | | 1745 (132322) | 21.37 | 21.28 | 21.35 |
| | | 1720 (132072) | 21.40 | 21.43 | 21.50 |
| | 50RB-High (50) | 1770 (132572) | 20.95 | 21.01 | 20.94 |
| | | 1745 (132322) | 21.00 | 20.94 | 21.00 |
| | | 1720 (132072) | 21.01 | 21.07 | 21.03 |
| | 50RB-Middle (25) | 1770 (132572) | 21.06 | 21.09 | 20.96 |
| | | 1745 (132322) | 21.03 | 21.04 | 21.04 |
| | | 1720 (132072) | 21.06 | 21.05 | 21.14 |
| | 50RB-Low (0) | 1770 (132572) | 21.07 | 21.05 | 21.11 |
| | | 1745 (132322) | 21.03 | 21.02 | 21.06 |
| | | 1720 (132072) | 20.96 | 21.03 | 21.07 |
| | 100RB (0) | 1770 (132572) | 20.98 | 21.01 | 20.87 |
| | | 1745 (132322) | 21.03 | 21.01 | 21.01 |
| | | 1720 (132072) | 20.99 | 21.06 | 21.03 |

| LTE Band66 ANT0-Power Level C2 | | | | | |
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| **BANDWIDTH** | **Number of RBs** | **Frequency** | **QPSK** | **16QAM** | **64QAM** |
| 1.4MHz | 1RB-High (5) | 1779.3 (132665) | 18.82 | 18.45 | 18.28 |
| | | 1745 (132322) | 18.73 | 18.63 | 18.14 |
| | | 1710.7 (131979) | 18.63 | 18.29 | 18.25 |
| | 1RB-Middle (3) | 1779.3 (132665) | 18.81 | 18.48 | 18.41 |
| | | 1745 (132322) | 18.78 | 18.63 | 18.22 |
| | | 1710.7 (131979) | 18.70 | 18.28 | 18.56 |
| | 1RB-Low (0) | 1779.3 (132665) | 18.80 | 18.42 | 18.26 |
| | | 1745 (132322) | 18.81 | 18.62 | 18.17 |
| | | 1710.7 (131979) | 18.68 | 18.27 | 18.30 |
| | 3RB-High (3) | 1779.3 (132665) | 18.82 | 18.38 | 17.86 |
| | | 1745 (132322) | 18.72 | 18.42 | 17.77 |
| | | 1710.7 (131979) | 18.74 | 18.35 | 17.86 |
| | 3RB-Middle (1) | 1779.3 (132665) | 18.83 | 18.37 | 17.92 |
| | | 1745 (132322) | 18.74 | 18.44 | 18.03 |
| | | 1710.7 (131979) | 18.73 | 18.39 | 17.92 |
| | 3RB-Low (0) | 1779.3 (132665) | 18.81 | 18.36 | 17.97 |
| | | 1745 (132322) | 18.74 | 18.43 | 17.86 |
| | | 1710.7 (131979) | 18.72 | 18.36 | 18.04 |
| | 6RB (0) | 1779.3 (132665) | 18.31 | 18.46 | 17.93 |
| | | 1745 (132322) | 18.24 | 18.14 | 17.79 |
| | | 1710.7 (131979) | 18.23 | 18.39 | 17.92 |
| 3MHz | 1RB-High (14) | 1778.5 (132657) | 18.74 | 18.26 | 18.33 |
| | | 1745 (132322) | 18.80 | 18.61 | 18.17 |
| | | 1711.5 (131987) | 18.64 | 18.23 | 18.42 |
| | 1RB-Middle (7) | 1778.5 (132657) | 18.81 | 18.27 | 18.53 |
| | | 1745 (132322) | 18.88 | 18.64 | 18.21 |
| | | 1711.5 (131987) | 18.76 | 18.31 | 18.55 |
| | 1RB-Low (0) | 1778.5 (132657) | 18.70 | 18.21 | 18.30 |
| | | 1745 (132322) | 18.80 | 18.59 | 18.29 |
| | | 1711.5 (131987) | 18.71 | 18.30 | 18.26 |
| | 8RB-High (7) | 1778.5 (132657) | 18.29 | 18.40 | 17.89 |
| | | 1745 (132322) | 18.21 | 18.31 | 17.79 |
| | | 1711.5 (131987) | 18.22 | 18.26 | 18.08 |
| | 8RB-Middle (4) | 1778.5 (132657) | 18.28 | 18.38 | 18.07 |
| | | 1745 (132322) | 18.23 | 18.30 | 17.85 |
| | | 1711.5 (131987) | 18.20 | 18.23 | 17.98 |
| | 8RB-Low (0) | 1778.5 (132657) | 18.28 | 18.38 | 17.80 |
| | | 1745 (132322) | 18.24 | 18.36 | 18.05 |
| | | 1711.5 (131987) | 18.22 | 18.23 | 17.86 |
| | 15RB (0) | 1778.5 (132657) | 18.27 | 18.30 | 18.03 |
| | | 1745 (132322) | 18.22 | 18.24 | 17.78 |
| | | 1711.5 (131987) | 18.23 | 18.21 | 18.04 |

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| 5MHz | 1RB-High (24) | 1777.5 (132647) | 18.88 | 18.51 | 18.48 |
| | | 1745 (132322) | 18.81 | 18.74 | 18.18 |
| | | 1712.5 (131997) | 18.78 | 18.35 | 18.41 |
| | 1RB-Middle (12) | 1777.5 (132647) | 18.89 | 18.49 | 18.35 |
| | | 1745 (132322) | 18.84 | 18.80 | 18.22 |
| | | 1712.5 (131997) | 18.83 | 18.44 | 18.43 |
| | 1RB-Low (0) | 1777.5 (132647) | 18.84 | 18.43 | 18.26 |
| | | 1745 (132322) | 18.80 | 18.74 | 18.21 |
| | | 1712.5 (131997) | 18.82 | 18.38 | 18.16 |
| | 12RB-High (13) | 1777.5 (132647) | 18.20 | 18.30 | 18.03 |
| | | 1745 (132322) | 18.14 | 18.31 | 17.89 |
| | | 1712.5 (131997) | 18.23 | 18.24 | 17.90 |
| | 12RB-Middle (6) | 1777.5 (132647) | 18.26 | 18.34 | 17.92 |
| | | 1745 (132322) | 18.27 | 18.40 | 18.04 |
| | | 1712.5 (131997) | 18.26 | 18.28 | 18.08 |
| | 12RB-Low (0) | 1777.5 (132647) | 18.28 | 18.34 | 17.85 |
| | | 1745 (132322) | 18.29 | 18.44 | 17.86 |
| | | 1712.5 (131997) | 18.24 | 18.24 | 18.05 |
| | 25RB (0) | 1777.5 (132647) | 18.26 | 18.31 | 17.80 |
| | | 1745 (132322) | 18.20 | 18.31 | 17.75 |
| | | 1712.5 (131997) | 18.23 | 18.20 | 17.94 |
| 10MHz | 1RB-High (49) | 1775 (132622) | 18.73 | 18.18 | 18.23 |
| | | 1745 (132322) | 18.77 | 18.57 | 18.34 |
| | | 1715 (132022) | 18.65 | 18.23 | 18.31 |
| | 1RB-Middle (24) | 1775 (132622) | 18.71 | 18.19 | 18.51 |
| | | 1745 (132322) | 18.82 | 18.65 | 18.26 |
| | | 1715 (132022) | 18.73 | 18.26 | 18.33 |
| | 1RB-Low (0) | 1775 (132622) | 18.63 | 18.11 | 18.26 |
| | | 1745 (132322) | 18.75 | 18.53 | 18.10 |
| | | 1715 (132022) | 18.67 | 18.20 | 18.33 |
| | 25RB-High (25) | 1775 (132622) | 18.23 | 18.27 | 18.05 |
| | | 1745 (132322) | 18.23 | 18.29 | 17.69 |
| | | 1715 (132022) | 18.23 | 18.38 | 18.00 |
| | 25RB-Middle (12) | 1775 (132622) | 18.25 | 18.30 | 17.83 |
| | | 1745 (132322) | 18.25 | 18.31 | 17.91 |
| | | 1715 (132022) | 18.20 | 18.29 | 17.87 |
| | 25RB-Low (0) | 1775 (132622) | 18.24 | 18.28 | 17.81 |
| | | 1745 (132322) | 18.25 | 18.32 | 17.80 |
| | | 1715 (132022) | 18.18 | 18.30 | 17.94 |
| | 50RB (0) | 1775 (132622) | 18.24 | 18.26 | 18.04 |
| | | 1745 (132322) | 18.26 | 18.26 | 17.81 |
| | | 1715 (132022) | 18.23 | 18.24 | 18.04 |

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| 15MHz | 1RB-High (74) | 1772.5 (132597) | 18.63 | 18.16 | 18.39 |
| | | 1745 (132322) | 18.67 | 18.52 | 18.06 |
| | | 1717.5 (132047) | 18.66 | 18.59 | 18.19 |
| | 1RB-Middle (37) | 1772.5 (132597) | 18.66 | 18.16 | 18.59 |
| | | 1745 (132322) | 18.76 | 18.62 | 18.26 |
| | | 1717.5 (132047) | 18.75 | 18.69 | 18.49 |
| | 1RB-Low (0) | 1772.5 (132597) | 18.54 | 18.08 | 18.19 |
| | | 1745 (132322) | 18.69 | 18.51 | 18.23 |
| | | 1717.5 (132047) | 18.62 | 18.60 | 18.27 |
| | 36RB-High (38) | 1772.5 (132597) | 18.15 | 18.19 | 18.05 |
| | | 1745 (132322) | 18.17 | 18.21 | 17.72 |
| | | 1717.5 (132047) | 18.22 | 18.18 | 18.07 |
| | 36RB-Middle (19) | 1772.5 (132597) | 18.18 | 18.21 | 17.94 |
| | | 1745 (132322) | 18.19 | 18.29 | 18.00 |
| | | 1717.5 (132047) | 18.15 | 18.18 | 18.10 |
| | 36RB-Low (0) | 1772.5 (132597) | 18.19 | 18.25 | 17.96 |
| | | 1745 (132322) | 18.20 | 18.30 | 17.94 |
| | | 1717.5 (132047) | 18.16 | 18.17 | 17.88 |
| | 75RB (0) | 1772.5 (132597) | 18.18 | 18.21 | 17.88 |
| | | 1745 (132322) | 18.15 | 18.24 | 18.02 |
| | | 1717.5 (132047) | 18.19 | 18.20 | 17.79 |
| 20MHz | 1RB-High (99) | 1770 (132572) | 18.40 | 18.35 | 18.39 |
| | | 1745 (132322) | 18.28 | 18.20 | 18.31 |
| | | 1720 (132072) | 18.34 | 18.34 | 18.34 |
| | 1RB-Middle (50) | 1770 (132572) | 18.51 | 18.48 | 18.34 |
| | | 1745 (132322) | 18.41 | 18.34 | 18.40 |
| | | 1720 (132072) | 18.39 | 18.42 | 18.44 |
| | 1RB-Low (0) | 1770 (132572) | 18.29 | 18.23 | 18.38 |
| | | 1745 (132322) | 18.27 | 18.15 | 18.07 |
| | | 1720 (132072) | 18.22 | 18.30 | 18.18 |
| | 50RB-High (50) | 1770 (132572) | 17.89 | 17.91 | 18.04 |
| | | 1745 (132322) | 17.87 | 17.83 | 17.84 |
| | | 1720 (132072) | 17.91 | 17.94 | 18.00 |
| | 50RB-Middle (25) | 1770 (132572) | 17.96 | 17.98 | 17.98 |
| | | 1745 (132322) | 17.96 | 17.91 | 17.77 |
| | | 1720 (132072) | 17.94 | 17.95 | 17.96 |
| | 50RB-Low (0) | 1770 (132572) | 17.93 | 17.91 | 17.99 |
| | | 1745 (132322) | 17.97 | 17.93 | 17.89 |
| | | 1720 (132072) | 17.91 | 17.95 | 18.05 |
| | 100RB (0) | 1770 (132572) | 17.93 | 17.92 | 17.78 |
| | | 1745 (132322) | 17.87 | 17.88 | 17.96 |
| | | 1720 (132072) | 17.89 | 17.91 | 17.92 |

| LTE Band66 ANT4-Power Level A1 | | | | | |
|---|---|---|---|---|---|
| **BANDWIDTH** | **Number of RBs** | **Frequency** | **QPSK** | **16QAM** | **64QAM** |
| 1.4MHz | 1RB-High (5) | 1779.3 (132665) | 15.98 | 16.19 | 15.85 |
| | | 1745 (132322) | 15.81 | 16.08 | 16.02 |
| | | 1710.7 (131979) | 15.94 | 16.33 | 16.14 |
| | 1RB-Middle (3) | 1779.3 (132665) | 15.88 | 16.26 | 16.08 |
| | | 1745 (132322) | 16.18 | 16.21 | 16.18 |
| | | 1710.7 (131979) | 16.14 | 16.42 | 16.26 |
| | 1RB-Low (0) | 1779.3 (132665) | 15.74 | 16.12 | 15.86 |
| | | 1745 (132322) | 15.94 | 16.15 | 16.05 |
| | | 1710.7 (131979) | 16.10 | 16.12 | 15.91 |
| | 3RB-High (3) | 1779.3 (132665) | 16.00 | 16.06 | 16.06 |
| | | 1745 (132322) | 15.96 | 16.23 | 15.75 |
| | | 1710.7 (131979) | 16.24 | 16.21 | 16.20 |
| | 3RB-Middle (1) | 1779.3 (132665) | 15.81 | 16.04 | 16.00 |
| | | 1745 (132322) | 16.04 | 16.33 | 16.14 |
| | | 1710.7 (131979) | 16.11 | 16.26 | 16.01 |
| | 3RB-Low (0) | 1779.3 (132665) | 16.05 | 16.25 | 15.97 |
| | | 1745 (132322) | 16.02 | 16.39 | 15.96 |
| | | 1710.7 (131979) | 16.13 | 16.38 | 16.19 |
| | 6RB (0) | 1779.3 (132665) | 15.82 | 16.03 | 15.86 |
| | | 1745 (132322) | 15.94 | 16.25 | 15.86 |
| | | 1710.7 (131979) | 16.01 | 16.29 | 16.23 |
| 3MHz | 1RB-High (14) | 1778.5 (132657) | 15.87 | 15.95 | 16.08 |
| | | 1745 (132322) | 16.02 | 16.16 | 16.02 |
| | | 1711.5 (131987) | 15.87 | 16.20 | 15.94 |
| | 1RB-Middle (7) | 1778.5 (132657) | 15.96 | 16.09 | 16.10 |
| | | 1745 (132322) | 15.95 | 16.37 | 16.08 |
| | | 1711.5 (131987) | 16.21 | 16.17 | 16.03 |
| | 1RB-Low (0) | 1778.5 (132657) | 15.98 | 16.15 | 15.87 |
| | | 1745 (132322) | 15.99 | 16.17 | 15.88 |
| | | 1711.5 (131987) | 16.12 | 16.36 | 16.05 |
| | 8RB-High (7) | 1778.5 (132657) | 15.77 | 16.01 | 15.92 |
| | | 1745 (132322) | 15.98 | 16.23 | 15.79 |
| | | 1711.5 (131987) | 16.00 | 16.39 | 16.12 |
| | 8RB-Middle (4) | 1778.5 (132657) | 15.86 | 16.26 | 16.14 |
| | | 1745 (132322) | 15.95 | 16.12 | 16.03 |
| | | 1711.5 (131987) | 16.07 | 16.44 | 16.19 |
| | 8RB-Low (0) | 1778.5 (132657) | 15.96 | 15.99 | 16.00 |
| | | 1745 (132322) | 16.05 | 16.16 | 16.15 |
| | | 1711.5 (131987) | 16.00 | 16.27 | 16.08 |
| | 15RB (0) | 1778.5 (132657) | 15.93 | 16.04 | 16.06 |
| | | 1745 (132322) | 15.84 | 16.21 | 16.10 |
| | | 1711.5 (131987) | 16.16 | 16.44 | 16.23 |

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|---|---|---|---|---|---|
| 5MHz | 1RB-High (24) | 1777.5 (132647) | 15.86 | 15.96 | 15.91 |
| | | 1745 (132322) | 15.94 | 16.16 | 15.95 |
| | | 1712.5 (131997) | 15.95 | 16.38 | 16.06 |
| | 1RB-Middle (12) | 1777.5 (132647) | 16.07 | 16.17 | 16.05 |
| | | 1745 (132322) | 16.05 | 16.25 | 16.18 |
| | | 1712.5 (131997) | 16.07 | 16.21 | 16.25 |
| | 1RB-Low (0) | 1777.5 (132647) | 16.00 | 16.03 | 15.85 |
| | | 1745 (132322) | 15.87 | 16.25 | 16.04 |
| | | 1712.5 (131997) | 16.05 | 16.11 | 16.15 |
| | 12RB-High (13) | 1777.5 (132647) | 15.77 | 15.98 | 15.97 |
| | | 1745 (132322) | 15.76 | 16.27 | 15.95 |
| | | 1712.5 (131997) | 16.10 | 16.23 | 16.08 |
| | 12RB-Middle (6) | 1777.5 (132647) | 15.98 | 16.26 | 16.03 |
| | | 1745 (132322) | 16.00 | 16.34 | 16.13 |
| | | 1712.5 (131997) | 16.15 | 16.33 | 16.12 |
| | 12RB-Low (0) | 1777.5 (132647) | 16.05 | 16.16 | 16.12 |
| | | 1745 (132322) | 15.92 | 16.24 | 16.16 |
| | | 1712.5 (131997) | 15.91 | 16.20 | 16.00 |
| | 25RB (0) | 1777.5 (132647) | 15.91 | 16.22 | 15.91 |
| | | 1745 (132322) | 16.01 | 16.10 | 16.02 |
| | | 1712.5 (131997) | 16.01 | 16.19 | 16.09 |
| 10MHz | 1RB-High (49) | 1775 (132622) | 16.03 | 16.21 | 15.80 |
| | | 1745 (132322) | 15.95 | 15.99 | 15.93 |
| | | 1715 (132022) | 15.96 | 16.18 | 16.20 |
| | 1RB-Middle (24) | 1775 (132622) | 15.88 | 16.23 | 16.06 |
| | | 1745 (132322) | 15.97 | 16.34 | 16.01 |
| | | 1715 (132022) | 16.15 | 16.27 | 16.11 |
| | 1RB-Low (0) | 1775 (132622) | 15.98 | 16.00 | 15.80 |
| | | 1745 (132322) | 16.00 | 16.25 | 16.08 |
| | | 1715 (132022) | 15.96 | 16.21 | 16.07 |
| | 25RB-High (25) | 1775 (132622) | 15.78 | 16.13 | 15.89 |
| | | 1745 (132322) | 15.75 | 16.17 | 15.92 |
| | | 1715 (132022) | 16.25 | 16.44 | 16.10 |
| | 25RB-Middle (12) | 1775 (132622) | 15.82 | 16.23 | 15.85 |
| | | 1745 (132322) | 16.08 | 16.31 | 15.95 |
| | | 1715 (132022) | 15.96 | 16.19 | 16.02 |
| | 25RB-Low (0) | 1775 (132622) | 15.91 | 16.17 | 15.93 |
| | | 1745 (132322) | 16.18 | 16.29 | 16.06 |
| | | 1715 (132022) | 16.09 | 16.34 | 16.10 |
| | 50RB (0) | 1775 (132622) | 16.00 | 16.27 | 16.12 |
| | | 1745 (132322) | 16.10 | 16.23 | 16.03 |
| | | 1715 (132022) | 16.04 | 16.38 | 16.06 |

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| 15MHz | 1RB-High (74) | 1772.5 (132597) | 15.82 | 16.20 | 15.82 |
| | | 1745 (132322) | 15.99 | 16.24 | 15.98 |
| | | 1717.5 (132047) | 16.00 | 16.35 | 16.10 |
| | 1RB-Middle (37) | 1772.5 (132597) | 15.82 | 16.04 | 15.87 |
| | | 1745 (132322) | 16.17 | 16.30 | 16.04 |
| | | 1717.5 (132047) | 16.08 | 16.41 | 16.21 |
| | 1RB-Low (0) | 1772.5 (132597) | 15.79 | 16.19 | 16.04 |
| | | 1745 (132322) | 15.77 | 16.06 | 15.86 |
| | | 1717.5 (132047) | 15.99 | 16.18 | 15.95 |
| | 36RB-High (38) | 1772.5 (132597) | 15.90 | 16.14 | 15.94 |
| | | 1745 (132322) | 16.02 | 16.01 | 15.88 |
| | | 1717.5 (132047) | 16.18 | 16.34 | 16.08 |
| | 36RB-Middle (19) | 1772.5 (132597) | 15.99 | 16.12 | 16.09 |
| | | 1745 (132322) | 16.06 | 16.17 | 16.16 |
| | | 1717.5 (132047) | 16.04 | 16.29 | 16.10 |
| | 36RB-Low (0) | 1772.5 (132597) | 15.83 | 16.14 | 15.95 |
| | | 1745 (132322) | 16.00 | 16.15 | 16.24 |
| | | 1717.5 (132047) | 16.05 | 16.33 | 16.21 |
| | 75RB (0) | 1772.5 (132597) | 16.01 | 16.09 | 15.94 |
| | | 1745 (132322) | 16.03 | 16.21 | 15.88 |
| | | 1717.5 (132047) | 16.20 | 16.46 | 16.20 |
| 20MHz | 1RB-High (99) | 1770 (132572) | 15.88 | 16.10 | 15.94 |
| | | 1745 (132322) | 15.91 | 16.13 | 15.97 |
| | | 1720 (132072) | 16.01 | 16.24 | 16.08 |
| | 1RB-Middle (50) | 1770 (132572) | 15.94 | 16.16 | 16.00 |
| | | 1745 (132322) | 16.03 | 16.25 | 16.09 |
| | | 1720 (132072) | 16.35 | 16.32 | 16.16 |
| | 1RB-Low (0) | 1770 (132572) | 15.87 | 16.09 | 15.93 |
| | | 1745 (132322) | 15.92 | 16.14 | 15.98 |
| | | 1720 (132072) | 16.00 | 16.22 | 16.06 |
| | 50RB-High (50) | 1770 (132572) | 15.90 | 16.12 | 15.96 |
| | | 1745 (132322) | 15.90 | 16.12 | 15.86 |
| | | 1720 (132072) | 16.14 | 16.36 | 16.20 |
| | 50RB-Middle (25) | 1770 (132572) | 15.93 | 16.15 | 15.99 |
| | | 1745 (132322) | 15.99 | 16.21 | 16.05 |
| | | 1720 (132072) | 16.08 | 16.31 | 16.15 |
| | 50RB-Low (0) | 1770 (132572) | 15.91 | 16.13 | 15.97 |
| | | 1745 (132322) | 16.03 | 16.25 | 16.09 |
| | | 1720 (132072) | 16.01 | 16.23 | 16.07 |
| | 100RB (0) | 1770 (132572) | 15.92 | 16.14 | 15.98 |
| | | 1745 (132322) | 15.95 | 16.17 | 16.01 |
| | | 1720 (132072) | 16.08 | 16.31 | 16.15 |

| LTE Band66 ANT4-Power Level B1 | | | | | |
|---|---|---|---|---|---|
| **BANDWIDTH** | **Number of RBs** | **Frequency** | **QPSK** | **16QAM** | **64QAM** |
| 1.4MHz | 1RB-High (5) | 1779.3 (132665) | 23.16 | 22.62 | 21.57 |
| | | 1745 (132322) | 23.24 | 22.98 | 21.71 |
| | | 1710.7 (131979) | 23.46 | 22.81 | 21.31 |
| | 1RB-Middle (3) | 1779.3 (132665) | 23.45 | 22.95 | 21.84 |
| | | 1745 (132322) | 23.46 | 22.86 | 21.47 |
| | | 1710.7 (131979) | 23.58 | 22.67 | 21.36 |
| | 1RB-Low (0) | 1779.3 (132665) | 23.50 | 22.92 | 21.87 |
| | | 1745 (132322) | 23.55 | 22.69 | 21.45 |
| | | 1710.7 (131979) | 23.62 | 22.61 | 21.37 |
| | 3RB-High (3) | 1779.3 (132665) | 23.18 | 22.89 | 21.64 |
| | | 1745 (132322) | 23.48 | 22.83 | 21.86 |
| | | 1710.7 (131979) | 23.75 | 22.72 | 21.56 |
| | 3RB-Middle (1) | 1779.3 (132665) | 23.29 | 23.13 | 21.87 |
| | | 1745 (132322) | 23.57 | 22.86 | 21.65 |
| | | 1710.7 (131979) | 23.65 | 22.79 | 21.70 |
| | 3RB-Low (0) | 1779.3 (132665) | 23.36 | 23.10 | 21.95 |
| | | 1745 (132322) | 23.62 | 22.84 | 21.64 |
| | | 1710.7 (131979) | 23.46 | 22.55 | 21.51 |
| | 6RB (0) | 1779.3 (132665) | 22.34 | 21.99 | 20.89 |
| | | 1745 (132322) | 22.24 | 21.92 | 20.86 |
| | | 1710.7 (131979) | 22.76 | 21.63 | 20.37 |
| 3MHz | 1RB-High (14) | 1778.5 (132657) | 23.27 | 22.61 | 21.41 |
| | | 1745 (132322) | 23.39 | 22.94 | 21.47 |
| | | 1711.5 (131987) | 23.62 | 22.71 | 21.41 |
| | 1RB-Middle (7) | 1778.5 (132657) | 23.34 | 23.13 | 21.89 |
| | | 1745 (132322) | 23.61 | 22.94 | 21.48 |
| | | 1711.5 (131987) | 23.62 | 22.87 | 21.53 |
| | 1RB-Low (0) | 1778.5 (132657) | 23.32 | 22.88 | 21.65 |
| | | 1745 (132322) | 23.54 | 22.75 | 21.50 |
| | | 1711.5 (131987) | 23.45 | 22.59 | 21.34 |
| | 8RB-High (7) | 1778.5 (132657) | 22.21 | 21.81 | 20.80 |
| | | 1745 (132322) | 22.28 | 21.87 | 20.79 |
| | | 1711.5 (131987) | 22.69 | 21.80 | 20.50 |
| | 8RB-Middle (4) | 1778.5 (132657) | 22.51 | 21.96 | 20.76 |
| | | 1745 (132322) | 22.29 | 21.70 | 20.57 |
| | | 1711.5 (131987) | 22.46 | 21.64 | 20.46 |
| | 8RB-Low (0) | 1778.5 (132657) | 22.34 | 22.15 | 20.93 |
| | | 1745 (132322) | 22.57 | 21.85 | 20.66 |
| | | 1711.5 (131987) | 22.45 | 21.49 | 20.39 |
| | 15RB (0) | 1778.5 (132657) | 22.31 | 22.11 | 20.77 |
| | | 1745 (132322) | 22.37 | 21.95 | 20.81 |
| | | 1711.5 (131987) | 22.64 | 21.71 | 20.60 |

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| 5MHz | 1RB-High (24) | 1777.5 (132647) | 23.42 | 22.48 | 21.56 |
| | | 1745 (132322) | 23.37 | 22.92 | 21.54 |
| | | 1712.5 (131997) | 23.59 | 22.68 | 21.52 |
| | 1RB-Middle (12) | 1777.5 (132647) | 23.39 | 22.99 | 22.06 |
| | | 1745 (132322) | 23.47 | 22.81 | 21.52 |
| | | 1712.5 (131997) | 23.74 | 22.70 | 21.39 |
| | 1RB-Low (0) | 1777.5 (132647) | 23.23 | 22.96 | 21.84 |
| | | 1745 (132322) | 23.39 | 22.52 | 21.42 |
| | | 1712.5 (131997) | 23.38 | 22.62 | 21.36 |
| | 12RB-High (13) | 1777.5 (132647) | 22.42 | 21.81 | 20.84 |
| | | 1745 (132322) | 22.26 | 21.70 | 20.79 |
| | | 1712.5 (131997) | 22.78 | 21.68 | 20.68 |
| | 12RB-Middle (6) | 1777.5 (132647) | 22.40 | 22.15 | 20.93 |
| | | 1745 (132322) | 22.39 | 21.93 | 20.64 |
| | | 1712.5 (131997) | 22.62 | 21.56 | 20.56 |
| | 12RB-Low (0) | 1777.5 (132647) | 22.37 | 22.05 | 20.79 |
| | | 1745 (132322) | 22.65 | 21.89 | 20.51 |
| | | 1712.5 (131997) | 22.48 | 21.71 | 20.41 |
| | 25RB (0) | 1777.5 (132647) | 22.26 | 22.09 | 20.83 |
| | | 1745 (132322) | 22.19 | 21.75 | 20.71 |
| | | 1712.5 (131997) | 22.64 | 21.68 | 20.57 |
| 10MHz | 1RB-High (49) | 1775 (132622) | 23.44 | 22.44 | 21.48 |
| | | 1745 (132322) | 23.27 | 22.77 | 21.59 |
| | | 1715 (132022) | 23.45 | 22.59 | 21.37 |
| | 1RB-Middle (24) | 1775 (132622) | 23.28 | 23.15 | 21.86 |
| | | 1745 (132322) | 23.48 | 22.89 | 21.72 |
| | | 1715 (132022) | 23.70 | 22.83 | 21.65 |
| | 1RB-Low (0) | 1775 (132622) | 23.37 | 23.00 | 21.93 |
| | | 1745 (132322) | 23.47 | 22.70 | 21.22 |
| | | 1715 (132022) | 23.63 | 22.42 | 21.21 |
| | 25RB-High (25) | 1775 (132622) | 22.47 | 21.95 | 20.64 |
| | | 1745 (132322) | 22.32 | 21.79 | 20.85 |
| | | 1715 (132022) | 22.67 | 21.79 | 20.68 |
| | 25RB-Middle (12) | 1775 (132622) | 22.49 | 21.99 | 20.78 |
| | | 1745 (132322) | 22.50 | 21.68 | 20.56 |
| | | 1715 (132022) | 22.53 | 21.78 | 20.69 |
| | 25RB-Low (0) | 1775 (132622) | 22.46 | 22.20 | 20.81 |
| | | 1745 (132322) | 22.59 | 21.83 | 20.63 |
| | | 1715 (132022) | 22.65 | 21.52 | 20.42 |
| | 50RB (0) | 1775 (132622) | 22.33 | 22.01 | 20.77 |
| | | 1745 (132322) | 22.40 | 21.70 | 20.63 |
| | | 1715 (132022) | 22.69 | 21.75 | 20.63 |

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| 15MHz | 1RB-High (74) | 1772.5 (132597) | 23.21 | 22.60 | 21.56 |
| | | 1745 (132322) | 23.39 | 23.02 | 21.62 |
| | | 1717.5 (132047) | 23.45 | 22.60 | 21.45 |
| | 1RB-Middle (37) | 1772.5 (132597) | 23.48 | 23.17 | 22.00 |
| | | 1745 (132322) | 23.50 | 22.73 | 21.48 |
| | | 1717.5 (132047) | 23.65 | 22.92 | 21.48 |
| | 1RB-Low (0) | 1772.5 (132597) | 23.32 | 22.81 | 21.74 |
| | | 1745 (132322) | 23.44 | 22.64 | 21.26 |
| | | 1717.5 (132047) | 23.37 | 22.65 | 21.34 |
| | 36RB-High (38) | 1772.5 (132597) | 22.32 | 21.94 | 20.82 |
| | | 1745 (132322) | 22.19 | 21.76 | 20.77 |
| | | 1717.5 (132047) | 22.67 | 21.67 | 20.68 |
| | 36RB-Middle (19) | 1772.5 (132597) | 22.47 | 22.22 | 21.04 |
| | | 1745 (132322) | 22.44 | 21.72 | 20.80 |
| | | 1717.5 (132047) | 22.68 | 21.55 | 20.49 |
| | 36RB-Low (0) | 1772.5 (132597) | 22.52 | 21.98 | 20.88 |
| | | 1745 (132322) | 22.51 | 21.72 | 20.68 |
| | | 1717.5 (132047) | 22.48 | 21.72 | 20.38 |
| | 75RB (0) | 1772.5 (132597) | 22.29 | 22.04 | 20.77 |
| | | 1745 (132322) | 22.36 | 21.75 | 20.63 |
| | | 1717.5 (132047) | 22.71 | 21.82 | 20.51 |
| 20MHz | 1RB-High (99) | 1770 (132572) | 23.30 | 22.55 | 21.43 |
| | | 1745 (132322) | 23.37 | 22.87 | 21.56 |
| | | 1720 (132072) | 23.54 | 22.71 | 21.44 |
| | 1RB-Middle (50) | 1770 (132572) | 23.51 | 23.07 | 21.95 |
| | | 1745 (132322) | 23.55 | 22.86 | 21.59 |
| | | 1720 (132072) | 23.65 | 22.79 | 21.51 |
| | 1RB-Low (0) | 1770 (132572) | 23.37 | 22.89 | 21.78 |
| | | 1745 (132322) | 23.45 | 22.67 | 21.37 |
| | | 1720 (132072) | 23.48 | 22.53 | 21.24 |
| | 50RB-High (50) | 1770 (132572) | 22.32 | 21.96 | 20.70 |
| | | 1745 (132322) | 22.33 | 21.83 | 20.71 |
| | | 1720 (132072) | 22.63 | 21.74 | 20.63 |
| | 50RB-Middle (25) | 1770 (132572) | 22.39 | 22.11 | 20.89 |
| | | 1745 (132322) | 22.43 | 21.79 | 20.71 |
| | | 1720 (132072) | 22.59 | 21.70 | 20.61 |
| | 50RB-Low (0) | 1770 (132572) | 22.38 | 22.10 | 20.86 |
| | | 1745 (132322) | 22.52 | 21.76 | 20.66 |
| | | 1720 (132072) | 22.51 | 21.58 | 20.47 |
| | 100RB (0) | 1770 (132572) | 22.37 | 22.05 | 20.80 |
| | | 1745 (132322) | 22.34 | 21.83 | 20.71 |
| | | 1720 (132072) | 22.61 | 21.67 | 20.51 |

| LTE Band66 ANT4-Power Level C1 | | | | | |
|---|---|---|---|---|---|
| **BANDWIDTH** | **Number of RBs** | **Frequency** | **QPSK** | **16QAM** | **64QAM** |
| 1.4MHz | 1RB-High (5) | 1779.3 (132665) | 19.67 | 20.02 | 19.97 |
| | | 1745 (132322) | 19.79 | 20.15 | 19.98 |
| | | 1710.7 (131979) | 19.91 | 20.34 | 20.14 |
| | 1RB-Middle (3) | 1779.3 (132665) | 19.73 | 20.17 | 20.19 |
| | | 1745 (132322) | 19.92 | 20.35 | 20.34 |
| | | 1710.7 (131979) | 19.97 | 20.31 | 20.22 |
| | 1RB-Low (0) | 1779.3 (132665) | 19.85 | 19.91 | 20.15 |
| | | 1745 (132322) | 19.92 | 20.14 | 20.13 |
| | | 1710.7 (131979) | 19.79 | 20.12 | 20.29 |
| | 3RB-High (3) | 1779.3 (132665) | 19.90 | 20.07 | 20.09 |
| | | 1745 (132322) | 19.92 | 20.15 | 20.02 |
| | | 1710.7 (131979) | 20.16 | 20.24 | 20.48 |
| | 3RB-Middle (1) | 1779.3 (132665) | 19.79 | 20.21 | 19.94 |
| | | 1745 (132322) | 19.81 | 20.16 | 20.01 |
| | | 1710.7 (131979) | 20.00 | 20.18 | 20.22 |
| | 3RB-Low (0) | 1779.3 (132665) | 19.80 | 20.01 | 20.20 |
| | | 1745 (132322) | 19.90 | 20.20 | 20.25 |
| | | 1710.7 (131979) | 19.79 | 20.23 | 20.18 |
| | 6RB (0) | 1779.3 (132665) | 19.98 | 19.99 | 20.11 |
| | | 1745 (132322) | 19.83 | 20.18 | 20.13 |
| | | 1710.7 (131979) | 20.02 | 20.26 | 20.13 |
| 3MHz | 1RB-High (14) | 1778.5 (132657) | 19.86 | 20.12 | 19.95 |
| | | 1745 (132322) | 19.81 | 19.97 | 20.15 |
| | | 1711.5 (131987) | 20.06 | 20.26 | 20.31 |
| | 1RB-Middle (7) | 1778.5 (132657) | 19.74 | 20.15 | 20.20 |
| | | 1745 (132322) | 19.89 | 20.17 | 20.11 |
| | | 1711.5 (131987) | 20.18 | 20.44 | 20.42 |
| | 1RB-Low (0) | 1778.5 (132657) | 19.91 | 20.00 | 19.87 |
| | | 1745 (132322) | 19.92 | 20.13 | 20.08 |
| | | 1711.5 (131987) | 19.95 | 20.18 | 20.29 |
| | 8RB-High (7) | 1778.5 (132657) | 19.80 | 20.09 | 20.18 |
| | | 1745 (132322) | 19.72 | 20.01 | 19.98 |
| | | 1711.5 (131987) | 20.25 | 20.30 | 20.28 |
| | 8RB-Middle (4) | 1778.5 (132657) | 19.79 | 19.99 | 20.10 |
| | | 1745 (132322) | 20.00 | 20.13 | 20.02 |
| | | 1711.5 (131987) | 20.08 | 20.46 | 20.42 |
| | 8RB-Low (0) | 1778.5 (132657) | 19.72 | 20.21 | 19.97 |
| | | 1745 (132322) | 20.02 | 20.39 | 20.34 |
| | | 1711.5 (131987) | 19.96 | 20.30 | 20.25 |
| | 15RB (0) | 1778.5 (132657) | 19.71 | 19.95 | 19.94 |
| | | 1745 (132322) | 19.96 | 20.15 | 20.01 |
| | | 1711.5 (131987) | 20.14 | 20.29 | 20.16 |

| | | | | | |
|---|---|---|---|---|---|
| 5MHz | 1RB-High (24) | 1777.5 (132647) | 19.72 | 19.95 | 20.01 |
| | | 1745 (132322) | 19.75 | 20.02 | 19.99 |
| | | 1712.5 (131997) | 19.98 | 20.11 | 20.11 |
| | 1RB-Middle (12) | 1777.5 (132647) | 19.82 | 19.98 | 20.05 |
| | | 1745 (132322) | 20.12 | 20.34 | 20.30 |
| | | 1712.5 (131997) | 20.16 | 20.20 | 20.29 |
| | 1RB-Low (0) | 1777.5 (132647) | 19.66 | 20.00 | 20.05 |
| | | 1745 (132322) | 19.95 | 20.15 | 20.06 |
| | | 1712.5 (131997) | 19.89 | 20.12 | 20.28 |
| | 12RB-High (13) | 1777.5 (132647) | 19.70 | 20.13 | 20.05 |
| | | 1745 (132322) | 19.82 | 19.98 | 19.91 |
| | | 1712.5 (131997) | 20.07 | 20.52 | 20.46 |
| | 12RB-Middle (6) | 1777.5 (132647) | 19.80 | 20.01 | 20.00 |
| | | 1745 (132322) | 19.85 | 20.06 | 20.10 |
| | | 1712.5 (131997) | 20.18 | 20.39 | 20.14 |
| | 12RB-Low (0) | 1777.5 (132647) | 19.87 | 20.16 | 20.10 |
| | | 1745 (132322) | 20.03 | 20.35 | 20.14 |
| | | 1712.5 (131997) | 20.00 | 20.19 | 20.23 |
| | 25RB (0) | 1777.5 (132647) | 19.73 | 20.23 | 20.08 |
| | | 1745 (132322) | 20.00 | 20.01 | 20.25 |
| | | 1712.5 (131997) | 20.06 | 20.41 | 20.35 |
| 10MHz | 1RB-High (49) | 1775 (132622) | 19.67 | 20.13 | 19.91 |
| | | 1745 (132322) | 19.89 | 20.14 | 20.10 |
| | | 1715 (132022) | 19.94 | 20.28 | 20.24 |
| | 1RB-Middle (24) | 1775 (132622) | 19.97 | 20.04 | 20.00 |
| | | 1745 (132322) | 20.11 | 20.35 | 20.08 |
| | | 1715 (132022) | 20.15 | 20.38 | 20.33 |
| | 1RB-Low (0) | 1775 (132622) | 19.68 | 19.93 | 20.13 |
| | | 1745 (132322) | 19.85 | 19.98 | 19.93 |
| | | 1715 (132022) | 20.06 | 20.10 | 20.08 |
| | 25RB-High (25) | 1775 (132622) | 19.90 | 19.98 | 19.93 |
| | | 1745 (132322) | 19.82 | 19.95 | 20.08 |
| | | 1715 (132022) | 20.00 | 20.52 | 20.39 |
| | 25RB-Middle (12) | 1775 (132622) | 19.80 | 20.18 | 20.10 |
| | | 1745 (132322) | 19.92 | 20.08 | 20.30 |
| | | 1715 (132022) | 19.94 | 20.17 | 20.32 |
| | 25RB-Low (0) | 1775 (132622) | 19.70 | 19.99 | 20.17 |
| | | 1745 (132322) | 20.07 | 20.20 | 20.26 |
| | | 1715 (132022) | 19.96 | 20.14 | 20.26 |
| | 50RB (0) | 1775 (132622) | 19.91 | 19.95 | 20.09 |
| | | 1745 (132322) | 19.82 | 20.17 | 20.13 |
| | | 1715 (132022) | 19.94 | 20.37 | 20.22 |

| | | | | | |
|---|---|---|---|---|---|
| 15MHz | 1RB-High (74) | 1772.5 (132597) | 19.81 | 19.94 | 20.03 |
| | | 1745 (132322) | 19.79 | 20.15 | 20.04 |
| | | 1717.5 (132047) | 20.00 | 20.20 | 20.03 |
| | 1RB-Middle (37) | 1772.5 (132597) | 19.87 | 20.25 | 20.11 |
| | | 1745 (132322) | 19.86 | 20.16 | 20.33 |
| | | 1717.5 (132047) | 20.10 | 20.27 | 20.35 |
| | 1RB-Low (0) | 1772.5 (132597) | 19.78 | 19.97 | 19.87 |
| | | 1745 (132322) | 19.70 | 19.99 | 19.96 |
| | | 1717.5 (132047) | 20.00 | 20.10 | 20.12 |
| | 36RB-High (38) | 1772.5 (132597) | 19.69 | 20.17 | 20.00 |
| | | 1745 (132322) | 19.90 | 20.02 | 20.07 |
| | | 1717.5 (132047) | 19.96 | 20.53 | 20.48 |
| | 36RB-Middle (19) | 1772.5 (132597) | 19.84 | 20.23 | 20.01 |
| | | 1745 (132322) | 19.92 | 20.06 | 20.01 |
| | | 1717.5 (132047) | 19.91 | 20.42 | 20.13 |
| | 36RB-Low (0) | 1772.5 (132597) | 19.75 | 20.08 | 19.95 |
| | | 1745 (132322) | 19.99 | 20.15 | 20.08 |
| | | 1717.5 (132047) | 20.03 | 20.30 | 20.30 |
| | 75RB (0) | 1772.5 (132597) | 19.93 | 20.09 | 19.97 |
| | | 1745 (132322) | 19.98 | 20.19 | 19.97 |
| | | 1717.5 (132047) | 20.04 | 20.38 | 20.23 |
| 20MHz | 1RB-High (99) | 1770 (132572) | 19.78 | 20.05 | 20.01 |
| | | 1745 (132322) | 19.82 | 20.09 | 20.05 |
| | | 1720 (132072) | 19.95 | 20.22 | 20.18 |
| | 1RB-Middle (50) | 1770 (132572) | 19.85 | 20.12 | 20.08 |
| | | 1745 (132322) | 19.97 | 20.24 | 20.20 |
| | | 1720 (132072) | 20.05 | 20.32 | 20.28 |
| | 1RB-Low (0) | 1770 (132572) | 19.77 | 20.04 | 20.00 |
| | | 1745 (132322) | 19.83 | 20.10 | 20.06 |
| | | 1720 (132072) | 19.93 | 20.20 | 20.16 |
| | 50RB-High (50) | 1770 (132572) | 19.81 | 20.08 | 20.04 |
| | | 1745 (132322) | 19.80 | 20.07 | 20.03 |
| | | 1720 (132072) | 20.11 | 20.38 | 20.34 |
| | 50RB-Middle (25) | 1770 (132572) | 19.84 | 20.11 | 20.07 |
| | | 1745 (132322) | 19.92 | 20.19 | 20.15 |
| | | 1720 (132072) | 20.04 | 20.31 | 20.27 |
| | 50RB-Low (0) | 1770 (132572) | 19.82 | 20.09 | 20.05 |
| | | 1745 (132322) | 19.97 | 20.24 | 20.20 |
| | | 1720 (132072) | 19.94 | 20.21 | 20.17 |
| | 100RB (0) | 1770 (132572) | 19.83 | 20.10 | 20.06 |
| | | 1745 (132322) | 19.87 | 20.14 | 20.10 |
| | | 1720 (132072) | 20.04 | 20.31 | 20.27 |

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

**The conducted power measurement results of downlink LTE CA Conduted Power are as below (Normal Power):**

| DL LTE CA Class | PCC | | | | | | | | SCC1 | | | Power | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | PCC Band | PCC Bandwidth (MHz) | PCC UL RB size | PCC UL RB offset | PCC DL RB size | PCC DL RB offset | PCC UL Channel | PCC DL Channel | SCC Band | SCC Bandwidth | SCC | Rel 8 LTETx Power(dBm) | Rel 10 DL LTE CA Tx Power(dBm) | Tune-up |
| 2C | 2 | 20 | 1 | 50 | 1 | 50 | 18700 | 700 | 2 | 5 | 817 | 24.00 | 23.79 | 24.5 |
| 2A-2A | 2 | 20 | 1 | 50 | 1 | 50 | 18700 | 700 | 2 | 10 | 1150 | 24.00 | 23.77 | 24.5 |
| 2A-5A | 2 | 20 | 1 | 50 | 1 | 50 | 18700 | 700 | 5 | 10 | 2525 | 24.00 | 23.89 | 24.5 |
| 2A-7A | 2 | 20 | 1 | 50 | 1 | 50 | 18700 | 700 | 7 | 20 | 3100 | 24.00 | 23.71 | 24.5 |
| 2A-12A | 2 | 20 | 1 | 50 | 1 | 50 | 18700 | 700 | 12 | 10 | 5095 | 24.00 | 23.74 | 24.5 |
| 2A-17A | 2 | 20 | 1 | 50 | 1 | 50 | 18700 | 700 | 17 | 10 | 5790 | 24.00 | 23.86 | 24.5 |
| 4A-4A | 4 | 20 | 1 | 50 | 1 | 50 | 20050 | 2050 | 4 | 20 | 2300 | 23.77 | 23.64 | 24.5 |
| 4A-5A | 4 | 20 | 1 | 50 | 1 | 50 | 20050 | 2050 | 5 | 10 | 2525 | 23.77 | 23.55 | 24.5 |
| 4A-7A | 4 | 20 | 1 | 50 | 1 | 50 | 20050 | 2050 | 7 | 20 | 3100 | 23.77 | 23.48 | 24.5 |
| 4A-12A | 4 | 20 | 1 | 50 | 1 | 50 | 20050 | 2050 | 12 | 10 | 5095 | 23.77 | 23.66 | 24.5 |
| 4A-17A | 4 | 20 | 1 | 50 | 1 | 50 | 20050 | 2050 | 17 | 10 | 5790 | 23.77 | 23.65 | 24.5 |
| 5A-7A | 5 | 10 | 1 | 24 | 1 | 24 | 20450 | 2450 | 7 | 20 | 3100 | 23.77 | 23.55 | 24.5 |
| 5A-41A | 5 | 10 | 1 | 24 | 1 | 24 | 20450 | 2450 | 41 | 20 | 40620 | 23.77 | 23.49 | 24.5 |
| 7C | 7 | 20 | 1 | 50 | 1 | 50 | 20850 | 2850 | 7 | 10 | 2994 | 23.74 | 23.58 | 24.5 |
| 7A-7A | 7 | 20 | 1 | 50 | 1 | 50 | 20850 | 2850 | 7 | 5 | 3425 | 23.74 | 23.68 | 24.5 |
| 12A-66A | 12 | 10 | 1 | 0 | 1 | 0 | 23060 | 5060 | 66 | 20 | 66786 | 23.92 | 23.86 | 24.5 |
| 41C | 41 | 20 | 1 | 49 | 1 | 49 | 41490 | 41490 | 41 | 5 | 41373 | 24.01 | 23.89 | 24.5 |
| 41A-41A | 41 | 20 | 1 | 49 | 1 | 49 | 41490 | 41490 | 41 | 5 | 39675 | 24.01 | 23.88 | 24.5 |
| 66C | 66 | 20 | 1 | 49 | 1 | 49 | 132072 | 66536 | 66 | 10 | 66680 | 23.77 | 23.65 | 24.5 |
| 66A-66A | 66 | 20 | 1 | 49 | 1 | 49 | 132072 | 66536 | 66 | 10 | 67286 | 23.77 | 23.64 | 24.5 |
| 5A-2A | 5 | 10 | 1 | 24 | 1 | 24 | 20450 | 2450 | 2 | 20 | 900 | 23.92 | 23.84 | 24.5 |
| 7A-2A | 7 | 20 | 1 | 50 | 1 | 50 | 20850 | 2850 | 2 | 20 | 900 | 23.74 | 23.63 | 24.5 |
| 12A-2A | 12 | 10 | 1 | 0 | 1 | 0 | 23060 | 5060 | 2 | 20 | 900 | 23.92 | 23.79 | 24.5 |
| 17A-2A | 12 | 10 | 1 | 0 | 1 | 0 | 23780 | 5780 | 2 | 20 | 900 | 23.92 | 23.85 | 24.5 |
| 5A-4A | 5 | 10 | 1 | 24 | 1 | 24 | 20450 | 2450 | 4 | 20 | 2175 | 23.92 | 23.72 | 24.5 |
| 7A-4A | 7 | 20 | 1 | 50 | 1 | 50 | 20850 | 2850 | 4 | 20 | 2175 | 23.74 | 23.67 | 24.5 |
| 12A-4A | 12 | 10 | 1 | 0 | 1 | 0 | 23060 | 5060 | 4 | 20 | 2175 | 23.92 | 23.8 | 24.5 |
| 17A-4A | 12 | 10 | 1 | 0 | 1 | 0 | 23780 | 5780 | 4 | 20 | 2175 | 23.92 | 23.73 | 24.5 |
| 7A-5A | 7 | 20 | 1 | 50 | 1 | 50 | 20850 | 2850 | 5 | 10 | 2525 | 23.74 | 23.54 | 24.5 |
| 41A-5A | 41 | 20 | 1 | 49 | 1 | 49 | 41490 | 41490 | 5 | 10 | 2525 | 24.01 | 23.89 | 24.5 |
| 66A-12A | 66 | 20 | 1 | 49 | 1 | 49 | 132322 | 66786 | 12 | 10 | 5095 | 23.85 | 23.64 | 24.5 |

Note: Testing is not required in bands or modes not intended/allowed for US operation.

**The conducted power measurement results of downlink LTE CA Conduted Power are as below (Low Power):**

| DL LTE CA Class | PCC | | | | | | | | SCC1 | | | Power | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | PCC Band | PCC Bandwidth (MHz) | PCC UL RB size | PCC UL RB offset | PCC DL RB size | PCC DL RB offset | PCC UL Channel | PCC DL Channel | SCC Band | SCC Bandwidth | SCC | Rel 8 LTETx Power(dBm) | Rel 10 DL LTE CA Tx Power(dBm) | Tune-up |
| 2C | 2 | 20 | 1 | 50 | 1 | 50 | 18700 | 700 | 2 | 5 | 817 | 21.67 | 21.52 | 22.5 |
| 2A-2A | 2 | 20 | 1 | 50 | 1 | 50 | 18700 | 700 | 2 | 10 | 1150 | 21.67 | 21.46 | 22.5 |
| 2A-5A | 2 | 20 | 1 | 50 | 1 | 50 | 18700 | 700 | 5 | 10 | 2525 | 21.67 | 21.54 | 22.5 |
| 2A-7A | 2 | 20 | 1 | 50 | 1 | 50 | 18700 | 700 | 7 | 20 | 3100 | 21.67 | 21.43 | 22.5 |
| 2A-12A | 2 | 20 | 1 | 50 | 1 | 50 | 18700 | 700 | 12 | 10 | 5095 | 21.67 | 21.43 | 22.5 |
| 2A-17A | 2 | 20 | 1 | 50 | 1 | 50 | 18700 | 700 | 17 | 10 | 5790 | 21.67 | 21.56 | 22.5 |
| 7C | 7 | 20 | 1 | 50 | 1 | 50 | 20850 | 2850 | 5 | 10 | 2525 | 19.82 | 19.72 | 21 |
| 7A-7A | 7 | 20 | 1 | 50 | 1 | 50 | 21100 | 3100 | 7 | 10 | 3400 | 19.82 | 19.64 | 21 |
| 66C | 66 | 20 | 1 | 49 | 1 | 49 | 132572 | 67036 | 66 | 10 | 67180 | 21.52 | 21.36 | 22.5 |
| 66A-66A | 66 | 20 | 1 | 49 | 1 | 49 | 132072 | 66536 | 66 | 10 | 67286 | 21.52 | 21.29 | 22.5 |

Note: Testing is not required in bands or modes not intended/allowed for US operation.

## 11.4 Wi-Fi and BT Measurement result

The maximum output power of BT antenna is 9.45dBm.
The maximum tune up of BT antenna is 11dBm.

The average conducted power for Wi-Fi 2.4G is as following-Power Level A1:

| 802.11b | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Channel\data rate | 1Mbps | 2Mbps | 5.5Mbps | 11Mbps | | | | |
| 11(2462MHz) | 13.30 | / | / | / | | | | |
| 6(2437(MHz) | 13.88 | / | / | / | | | | |
| 1(2412MHz) | 13.98 | 13.89 | 13.91 | 13.68 | | | | |
| Tune up | 14.00 | 14.00 | 14.00 | 14.00 | | | | |
| **802.11g** | | | | | | | | |
| Channel\data rate | 6Mbps | 9Mbps | 12Mbps | 18Mbps | 24Mbps | 36Mbps | 48Mbps | 54Mbps |
| 11(2462MHz) | 13.20 | / | / | / | / | / | / | / |
| 6(2437(MHz) | 13.50 | / | / | / | / | / | / | / |
| 1(2412MHz) | 13.98 | 13.77 | 13.96 | 13.95 | 13.96 | 13.26 | 13.80 | 13.94 |
| Tune up | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 |
| **802.11n-20MHz** | | | | | | | | |
| Channel\data rate | MCS0 | MCS1 | MCS2 | MCS3 | MCS4 | MCS5 | MCS6 | MCS7 |
| 11(2462MHz) | 13.37 | / | / | / | / | / | / | / |
| 6(2437(MHz) | 13.80 | / | / | / | / | / | / | / |
| 1(2412MHz) | 13.86 | 13.84 | 13.63 | 13.84 | 13.63 | 13.91 | 13.93 | 13.92 |
| Tune up | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 |

The average conducted power for Wi-Fi 2.4G is as following-Power Level B1/C1:

| 802.11b | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Channel\data rate | 1Mbps | 2Mbps | 5.5Mbps | 11Mbps | | | | |
| 11(2462MHz) | 19.05 | / | 19.08 | / | | | | |
| 6(2437(MHz) | 19.33 | 19.34 | 19.38 | 19.33 | | | | |
| 1(2412MHz) | 18.80 | / | 18.89 | / | | | | |
| Tune up | 19.50 | 19.50 | 19.50 | 19.50 | | | | |
| **802.11g** | | | | | | | | |
| Channel\data rate | 6Mbps | 9Mbps | 12Mbps | 18Mbps | 24Mbps | 36Mbps | 48Mbps | 54Mbps |
| 11(2462MHz) | 15.98 | / | / | / | / | / | / | / |
| 6(2437(MHz) | 18.17 | 18.10 | 17.50 | 17.13 | 16.56 | 16.02 | 15.86 | 15.40 |
| 1(2412MHz) | 17.67 | / | / | / | / | / | / | / |
| Tune up | 18.50 | 18.50 | 18.00 | 17.50 | 17.00 | 16.50 | 16.00 | 15.50 |
| **802.11n-20MHz** | | | | | | | | |
| Channel\data rate | MCS0 | MCS1 | MCS2 | MCS3 | MCS4 | MCS5 | MCS6 | MCS7 |
| 11(2462MHz) | 16.62 | / | / | / | / | / | / | / |
| 6(2437(MHz) | 18.15 | 17.47 | 17.03 | 16.42 | 15.98 | 15.80 | 15.87 | 15.37 |
| 1(2412MHz) | 17.55 | / | / | / | / | / | / | / |
| Tune up | 18.50 | 18.00 | 17.50 | 17.00 | 16.50 | 16.00 | 16.00 | 15.50 |

The average conducted power for Wi-Fi 5G is as following-Power Level A1:

| 802.11ac(dBm)-20MHz | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Channel\data rate | MCS0 | MCS1 | MCS2 | MCS3 | MCS4 | MCS5 | MCS6 | MCS7 | MCS8 |
| 36(5180 MHz) | 12.06 | 11.91 | 11.88 | 11.76 | 11.53 | 11.48 | 11.42 | 11.29 | 11.17 |
| 40(5200 MHz) | 11.97 | / | / | / | / | / | / | / | / |
| 44(5220 MHz) | 11.88 | / | / | / | / | / | / | / | / |
| 48(5240 MHz) | 11.85 | / | / | / | / | / | / | / | / |
| 52(5260 MHz) | 12.02 | / | / | / | / | / | / | / | / |
| 56(5280 MHz) | 12.09 | / | / | / | / | / | / | / | / |
| 60(5300 MHz) | 12.25 | / | / | / | / | / | / | / | / |
| 64(5320 MHz) | 12.29 | 11.98 | 11.95 | 11.95 | 11.81 | 11.70 | 11.59 | 11.57 | 11.42 |
| Tune up | 12.50 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 | 11.50 |

| 802.11ac(dBm)-80MHz | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Channel\data rate | MCS0 | MCS1 | MCS2 | MCS3 | MCS4 | MCS5 | MCS6 | MCS7 | MCS8 | MCS9 |
| 106(5530 MHz) | 11.97 | / | / | / | / | / | / | / | / | / |
| 122(5610 MHz) | 12.12 | 11.80 | 11.51 | 11.34 | 10.59 | 9.90 | 9.68 | 9.57 | 9.14 | 9.11 |
| Tune up | 13.00 | 13.00 | 13.00 | 13.00 | 12.00 | 11.50 | 11.50 | 11.00 | 11.00 | 11.00 |
| 155(5775 MHz) | 12.55 | 12.29 | 12.01 | 11.80 | 11.09 | 10.37 | 10.11 | 10.19 | 9.53 | 9.53 |
| Tune up | 13.00 | 13.00 | 13.00 | 13.00 | 12.00 | 11.50 | 11.50 | 11.00 | 11.00 | 11.00 |

The average conducted power for Wi-Fi 5G is as following-Power Level B1/C1:

| 802.11a(dBm) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Channel\data rate | 6Mbps | 9Mbps | 12Mbps | 18Mbps | 24Mbps | 36Mbps | 48Mbps | 54Mbps |
| 36(5180 MHz) | 17.25 | / | / | / | / | / | / | / |
| 40(5200 MHz) | 17.27 | 16.89 | 16.48 | 15.98 | 15.95 | 15.34 | 15.13 | 14.56 |
| 44(5220 MHz) | 17.20 | / | / | / | / | / | / | / |
| 48(5240 MHz) | 17.09 | / | / | / | / | / | / | / |
| 52(5260 MHz) | 17.36 | / | / | / | / | / | / | / |
| 56(5280 MHz) | 17.56 | / | / | / | / | / | / | / |
| 60(5300 MHz) | 17.61 | 16.48 | 16.46 | 15.86 | 15.83 | 15.06 | 14.92 | 14.75 |
| 64(5320 MHz) | 17.15 | / | / | / | / | / | / | / |
| Tune up | 18.00 | 17.50 | 17.50 | 17.00 | 17.00 | 16.50 | 16.50 | 16.00 |
| 802.11n(dBm)-40MHz | | | | | | | | |
| Channel\data rate | MCS0 | MCS1 | MCS2 | MCS3 | MCS4 | MCS5 | MCS6 | MCS7 |
| 102(5510 MHz) | 14.45 | / | / | / | / | / | / | / |
| 110(5550 MHz) | 17.41 | / | / | / | / | / | / | / |
| 118(5590 MHz) | 17.48 | 16.24 | 15.98 | 14.86 | 14.66 | 13.44 | 13.31 | 12.16 |
| 126(5630 MHz) | 17.29 | / | / | / | / | / | / | / |
| 134(5670 MHz) | 16.99 | / | / | / | / | / | / | / |
| Tune up | 18.00 | 17.00 | 17.00 | 16.00 | 16.00 | 15.00 | 15.00 | 14.00 |

| 802.11ac(dBm)-80MHz | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Channel\data rate | MCS0 | MCS1 | MCS2 | MCS3 | MCS4 | MCS5 | MCS6 | MCS7 | MCS8 | MCS9 |
| 155(5775 MHz) | 17.68 | 16.87 | 16.64 | 15.91 | 15.05 | 14.63 | 14.49 | 13.41 | 12.32 | 11.57 |
| Tune up | 18.00 | 17.50 | 17.50 | 17.00 | 17.00 | 16.00 | 16.00 | 15.00 | 14.00 | 13.00 |

## 11.5 5G NR Measurement result

### Maximum Target Power for Production Unit– Level A1/B1/C1

| Band | Tune up (dBm) | | |
|---|---|---|---|
| | Level A1 (Receiver on) | Level B1 (Receiver off, hotspot off) | Level C1 (Receiver off, hotspot on) |
| N5 | 24.5 | 24.5 | 24.5 |
| N7 | 20.5 | 24.5 | 16.5 |

### Maximum power reduction (MPR) for power class 3

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

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

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

| n5-Power Level A1/B1/C1 | | | | | | | |
|---|---|---|---|---|---|---|---|
| SCS (kHz) | NR BW (MHz) | Modulation | RB allocation | | NR Test Freq. (MHz) | NR Test CH. | Power Results (dBm) |
| 15 | 5 | DFT-s-OFDM QPSK | Inner_Full | 12@6 | 846.5 | 169300 | 24.13 |
| 15 | 5 | DFT-s-OFDM QPSK | Inner_Full | 12@6 | 836.5 | 167300 | 24.18 |
| 15 | 5 | DFT-s-OFDM QPSK | Inner_Full | 12@6 | 826.5 | 165300 | 24.06 |
| 15 | 20 | DFT-s-OFDM QPSK | Inner_Full | 50@25 | 839 | 167800 | 24.10 |
| 15 | 20 | DFT-s-OFDM QPSK | Inner_Full | 50@25 | 836.5 | 167300 | 24.07 |
| 15 | 20 | DFT-s-OFDM QPSK | Inner_Full | 50@25 | 834 | 166800 | 24.04 |
| 15 | 5 | DFT-s-OFDM PI/2 BPSK1 | Inner_Full | 12@6 | 836.5 | 167300 | 23.87 |
| 15 | 5 | DFT-s-OFDM 16QAM | Inner_Full | 12@6 | 836.5 | 167300 | 23.37 |
| 15 | 5 | DFT-s-OFDM 64QAM | Inner_Full | 12@6 | 836.5 | 167300 | 21.73 |
| 15 | 5 | DFT-s-OFDM 256QAM | Inner_Full | 12@6 | 836.5 | 167300 | 19.52 |
| 15 | 5 | CP-OFDM QPSK | Inner_Full | 13@6 | 836.5 | 167300 | 23.47 |
| 15 | 5 | CP-OFDM 16QAM | Inner_Full | 13@6 | 836.5 | 167300 | 23.03 |
| 15 | 5 | CP-OFDM 64QAM | Inner_Full | 13@6 | 836.5 | 167300 | 21.24 |
| 15 | 5 | CP-OFDM 256QAM | Inner_Full | 13@6 | 836.5 | 167300 | 17.91 |
| 15 | 5 | DFT-s-OFDM QPSK | Edge_1RB_Right | 1@24 | 846.5 | 169300 | 22.88 |
| 15 | 5 | DFT-s-OFDM QPSK | Edge_1RB_Left | 1@0 | 826.5 | 165300 | 22.98 |
| 15 | 5 | DFT-s-OFDM QPSK | Edge_Full_Right | 2@23 | 836.5 | 165300 | 22.89 |
| 15 | 5 | DFT-s-OFDM QPSK | Edge_Full_Left | 2@0 | 836.5 | 165300 | 22.95 |
| 15 | 5 | DFT-s-OFDM QPSK | Inner_1RB_Right | 1@23 | 836.5 | 165300 | 23.98 |
| 15 | 5 | DFT-s-OFDM QPSK | Inner_1RB_Left | 1@1 | 836.5 | 165300 | 24.04 |
| 15 | 5 | DFT-s-OFDM QPSK | Outer_Full | 25@0 | 836.5 | 165300 | 22.96 |
| 15 | 10 | DFT-s-OFDM QPSK | Inner_Full | 25@12 | 836.5 | 167300 | 23.85 |
| 15 | 15 | DFT-s-OFDM QPSK | Inner_Full | 36@18 | 836.5 | 167300 | 24.03 |

| n7-Power Level A1 | | | | | | | |
|---|---|---|---|---|---|---|---|
| SCS (kHz) | NR BW (MHz) | Modulation | RB allocation | | NR Test Freq. (MHz) | QRCT Test CH. | Power Results (dBm) |
| 15 | 5 | DFT-s-OFDM QPSK | Inner_Full | 12@6 | 2502.5 | 500500 | 14.93 |
| 15 | 5 | DFT-s-OFDM QPSK | Inner_Full | 12@6 | 2535 | 507000 | 15.15 |
| 15 | 5 | DFT-s-OFDM QPSK | Inner_Full | 12@6 | 2567.5 | 513500 | 15.45 |
| 15 | 20 | DFT-s-OFDM QPSK | Inner_Full | 50@25 | 2510 | 502000 | 14.98 |
| 15 | 20 | DFT-s-OFDM QPSK | Inner_Full | 50@25 | 2535 | 507000 | 15.14 |
| 15 | 20 | DFT-s-OFDM QPSK | Inner_Full | 50@25 | 2560 | 512000 | 15.32 |
| 15 | 5 | DFT-s-OFDM PI/2 BPSK1 | Inner_Full | 12@6 | 2567.5 | 513500 | 15.37 |
| 15 | 5 | DFT-s-OFDM 16QAM | Inner_Full | 12@6 | 2567.5 | 513500 | 15.56 |
| 15 | 5 | DFT-s-OFDM 64QAM | Inner_Full | 12@6 | 2567.5 | 513500 | 15.57 |
| 15 | 5 | DFT-s-OFDM 256QAM | Inner_Full | 12@6 | 2567.5 | 513500 | 15.57 |
| 15 | 5 | CP-OFDM QPSK | Inner_Full | 13@6 | 2567.5 | 513500 | 15.75 |
| 15 | 5 | CP-OFDM 16QAM | Inner_Full | 13@6 | 2567.5 | 513500 | 15.85 |
| 15 | 5 | CP-OFDM 64QAM | Inner_Full | 13@6 | 2567.5 | 513500 | 15.77 |
| 15 | 5 | CP-OFDM 256QAM | Inner_Full | 13@6 | 2567.5 | 513500 | 15.74 |
| 15 | 5 | CP-OFDM 16QAM | Edge_Full_Right | 2@23 | 2567.5 | 513500 | 15.52 |
| 15 | 5 | CP-OFDM 16QAM | Edge_Full_Left | 2@0 | 2567.5 | 513500 | 15.62 |
| 15 | 5 | CP-OFDM 16QAM | Inner_1RB_Right | 1@23 | 2567.5 | 513500 | 15.91 |
| 15 | 5 | CP-OFDM 16QAM | Inner_1RB_Left | 1@1 | 2567.5 | 513500 | 16.01 |
| 15 | 5 | CP-OFDM 16QAM | Outer_Full | 25@0 | 2567.5 | 513500 | 15.78 |
| 15 | 10 | CP-OFDM 16QAM | Inner_1RB_Left | 1@1 | 2565 | 512064 | 15.75 |
| 15 | 15 | CP-OFDM 16QAM | Inner_1RB_Left | 1@1 | 2562.5 | 511078 | 15.87 |

| n7-Power Level B1 | | | | | | | |
|---|---|---|---|---|---|---|---|
| SCS (kHz) | NR BW (MHz) | Modulation | RB allocation | | NR Test Freq. (MHz) | QRCT Test CH. | Power Results (dBm) |
| 15 | 5 | DFT-s-OFDM QPSK | Inner_Full | 12@6 | 2502.5 | 500500 | 24.11 |
| 15 | 5 | DFT-s-OFDM QPSK | Inner_Full | 12@6 | 2535 | 507000 | 24.13 |
| 15 | 5 | DFT-s-OFDM QPSK | Inner_Full | 12@6 | 2567.5 | 513500 | 24.38 |
| 15 | 20 | DFT-s-OFDM QPSK | Inner_Full | 50@25 | 2510 | 502000 | 24.03 |
| 15 | 20 | DFT-s-OFDM QPSK | Inner_Full | 50@25 | 2535 | 507000 | 24.05 |
| 15 | 20 | DFT-s-OFDM QPSK | Inner_Full | 50@25 | 2560 | 512000 | 24.30 |
| 15 | 5 | DFT-s-OFDM PI/2 BPSK1 | Inner_Full | 12@6 | 2567.5 | 513500 | 24.15 |
| 15 | 5 | DFT-s-OFDM 16QAM | Inner_Full | 12@6 | 2567.5 | 513500 | 23.61 |
| 15 | 5 | DFT-s-OFDM 64QAM | Inner_Full | 12@6 | 2567.5 | 513500 | 22.15 |
| 15 | 5 | DFT-s-OFDM 256QAM | Inner_Full | 12@6 | 2567.5 | 513500 | 19.95 |
| 15 | 5 | CP-OFDM QPSK | Inner_Full | 13@6 | 2567.5 | 513500 | 23.87 |
| 15 | 5 | CP-OFDM 16QAM | Inner_Full | 13@6 | 2567.5 | 513500 | 23.41 |
| 15 | 5 | CP-OFDM 64QAM | Inner_Full | 13@6 | 2567.5 | 513500 | 21.67 |
| 15 | 5 | CP-OFDM 256QAM | Inner_Full | 13@6 | 2567.5 | 513500 | 18.21 |
| 15 | 5 | DFT-s-OFDM QPSK | Edge_Full_Right | 2@23 | 2567.5 | 513500 | 23.24 |
| 15 | 5 | DFT-s-OFDM QPSK | Edge_Full_Left | 2@0 | 2567.5 | 513500 | 23.17 |
| 15 | 5 | DFT-s-OFDM QPSK | Inner_1RB_Right | 1@23 | 2567.5 | 513500 | 24.34 |
| 15 | 5 | DFT-s-OFDM QPSK | Inner_1RB_Left | 1@1 | 2567.5 | 513500 | 24.26 |
| 15 | 5 | DFT-s-OFDM QPSK | Outer_Full | 25@0 | 2567.5 | 513500 | 23.21 |
| 15 | 10 | DFT-s-OFDM QPSK | Inner_Full | 25@12 | 2565 | 512064 | 24.04 |
| 15 | 15 | DFT-s-OFDM QPSK | Inner_Full | 36@18 | 2562.5 | 511078 | 24.26 |

| n7-Power Level C1 | | | | | | | |
|---|---|---|---|---|---|---|---|
| SCS (kHz) | NR BW (MHz) | Modulation | RB allocation | | NR Test Freq. (MHz) | QRCT Test CH. | Power Results (dBm) |
| 15 | 5 | DFT-s-OFDM QPSK | Inner_Full | 12@6 | 2502.5 | 500500 | 19.08 |
| 15 | 5 | DFT-s-OFDM QPSK | Inner_Full | 12@6 | 2535 | 507000 | 19.36 |
| 15 | 5 | DFT-s-OFDM QPSK | Inner_Full | 12@6 | 2567.5 | 513500 | 19.74 |
| 15 | 20 | DFT-s-OFDM QPSK | Inner_Full | 50@25 | 2510 | 502000 | 19.14 |
| 15 | 20 | DFT-s-OFDM QPSK | Inner_Full | 50@25 | 2535 | 507000 | 19.34 |
| 15 | 20 | DFT-s-OFDM QPSK | Inner_Full | 50@25 | 2560 | 512000 | 19.57 |
| 15 | 5 | DFT-s-OFDM PI/2 BPSK1 | Inner_Full | 12@6 | 2567.5 | 513500 | 19.54 |
| 15 | 5 | DFT-s-OFDM 16QAM | Inner_Full | 12@6 | 2567.5 | 513500 | 20.02 |
| 15 | 5 | DFT-s-OFDM 64QAM | Inner_Full | 12@6 | 2567.5 | 513500 | 20.02 |
| 15 | 5 | DFT-s-OFDM 256QAM | Inner_Full | 12@6 | 2567.5 | 513500 | 19.57 |
| 15 | 5 | CP-OFDM QPSK | Inner_Full | 13@6 | 2567.5 | 513500 | 20.45 |
| 15 | 5 | CP-OFDM 16QAM | Inner_Full | 13@6 | 2567.5 | 513500 | 20.48 |
| 15 | 5 | CP-OFDM 64QAM | Inner_Full | 13@6 | 2567.5 | 513500 | 20.47 |
| 15 | 5 | CP-OFDM 256QAM | Inner_Full | 13@6 | 2567.5 | 513500 | 17.50 |
| 15 | 5 | CP-OFDM 16QAM | Edge_Full_Right | 2@23 | 2567.5 | 513500 | 20.33 |
| 15 | 5 | CP-OFDM 16QAM | Edge_Full_Left | 2@0 | 2567.5 | 513500 | 20.34 |
| 15 | 5 | CP-OFDM 16QAM | Inner_1RB_Right | 1@23 | 2567.5 | 513500 | 20.33 |
| 15 | 5 | CP-OFDM 16QAM | Inner_1RB_Left | 1@1 | 2567.5 | 513500 | 20.25 |
| 15 | 5 | CP-OFDM 16QAM | Outer_Full | 25@0 | 2567.5 | 513500 | 20.47 |
| 15 | 10 | CP-OFDM 16QAM | Inner_Full | 25@12 | 2565 | 512064 | 20.32 |
| 15 | 15 | CP-OFDM 16QAM | Inner_Full | 36@18 | 2562.5 | 511078 | 20.44 |

# 12 Simultaneous TX SAR Considerations

## 12.1 Introduction

The following procedures adopted from “FCC SAR Considerations for Cell Phones with Multiple Transmitters” are applicable to handsets with built-in unlicensed transmitters such as 802.11 a/b/g and Bluetooth devices which may simultaneously transmit with the licensed transmitter.
For this device, the BT and Wi-Fi can transmit simultaneous with other transmitters.

## 12.2 Transmit Antenna Separation Distances

**Please refer to the picture of antenna locations in the document: ”The photos of SAR test-I21Z70218”.**

## 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 | Right | Top | Bottom |
| Main Antenna-ANT0 | Yes | Yes | Yes | Yes | No | Yes |
| Main Antenna-ANT1 | Yes | Yes | Yes | No | No | Yes |
| Main Antenna-ANT4 | Yes | Yes | Yes | No | Yes | No |
| WiFi Antenna-ANT6 | Yes | Yes | No | Yes | Yes | No |

## 12.4 Standalone SAR Test Exclusion Considerations

Standalone 1-g head or body SAR evaluation by measurement or numerical simulation is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied. The 1-g SAR test exclusion threshold for 100 MHz to 6 GHz at test separation distances≤ 50 mm are determined by:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√f(GHz)] ≤ 3.0 for 1-g SAR, where

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

**Table 12.1: Standalone SAR test exclusion considerations**

| Band/Mode | F(GHz) | Position | SAR test exclusion threshold(mW) | RF output power | | SAR test exclusion |
|---|---|---|---|---|---|---|
| | | | | dBm | mW | |
| Bluetooth | 2.441 | Head | 9.60 | 11 | 12.59 | No |
| | | Body | 19.20 | 11 | 12.59 | Yes |
| 2.4GHz WLAN | 2.45 | Head | 9.58 | 19.5 | 89.13 | No |
| | | Body | 19.17 | 19.5 | 89.13 | No |
| 5GHz WLAN | 5.2 | Head | 6.58 | 18 | 63.10 | No |
| | | Body | 13.16 | 18 | 63.10 | No |
| | 5.3 | Head | 6.52 | 18 | 63.10 | No |
| | | Body | 13.03 | 18 | 63.10 | No |
| | 5.6 | Head | 6.34 | 18 | 63.10 | No |
| | | Body | 12.68 | 18 | 63.10 | No |
| | 5.8 | Head | 6.23 | 18 | 63.10 | No |
| | | Body | 12.46 | 18 | 63.10 | No |

# 13 Evaluation of Simultaneous

**Table 13.1: The sum of SAR values for Main antenna + WiFi-2.4G**

| | Position | Main antenna | WiFi-2.4G | Sum |
|---|---|---|---|---|
| **Highest SAR value for Head** | Left head, Tilt (ENDC 66A-n5A) | 0.76 | 0.29 | **1.05** |
| **Highest SAR value for Body** | Rear 10mm (GSM1900) | 1.18 | 0.27 | **1.45** |

**Table 13.2: The sum of SAR values for Main antenna + WiFi-5G**

| | Position | Main antenna | WiFi-5G | Sum |
|---|---|---|---|---|
| **Highest SAR value for Head** | Right head, Tilt (ENDC 66A-n5A) | 0.94 | 0.29 | **1.23** |
| **Highest SAR value for Body** | Rear 10mm (GSM1900) | 1.18 | 0.12 | **1.30** |

**Table 13.3: The sum of reported SAR values for main antenna and BT**

| | Position | Main antenna | BT | Sum |
|---|---|---|---|---|
| **Maximum reported SAR value for Head** | Right head, Tilt (ENDC 66A-n5A) | 0.94 | <0.01 | **0.94** |
| **Maximum reported SAR value for Body** | Rear 10mm (GSM1900) | 1.18 | <0.01 | **1.18** |

**Table 13.4: The sum of SAR values for ENDC**

| | LTE | NR | Mode | Position | Reported SAR 1g(W/kg) |
|---|---|---|---|---|---|
| ENDC | LTE B7-ANT4 | n5 | Head | Right Tilt | **0.65 (0.50+0.15)** |
| | | | Body | Rear 10mm | **0.68 (0.25+0.43)** |
| | LTE B5 | n7 | Head | Right Tilt | **0.54 (0.13+0.41)** |
| | | | Body | Rear 10mm | **0.46 (0.34+0.12)** |
| | LTE B66-ANT1 | n7 | Head | Right Tilt | **0.76 (0.35+0.41)** |
| | | | Body | Rear 10mm | **0.80 (0.68+0.12)** |
| | LTE B66-ANT4 | n5 | Head | Right Tilt | **0.94 (0.79+0.15)** |
| | | | Body | Rear 10mm | **1.13 (0.57+0.43)** |

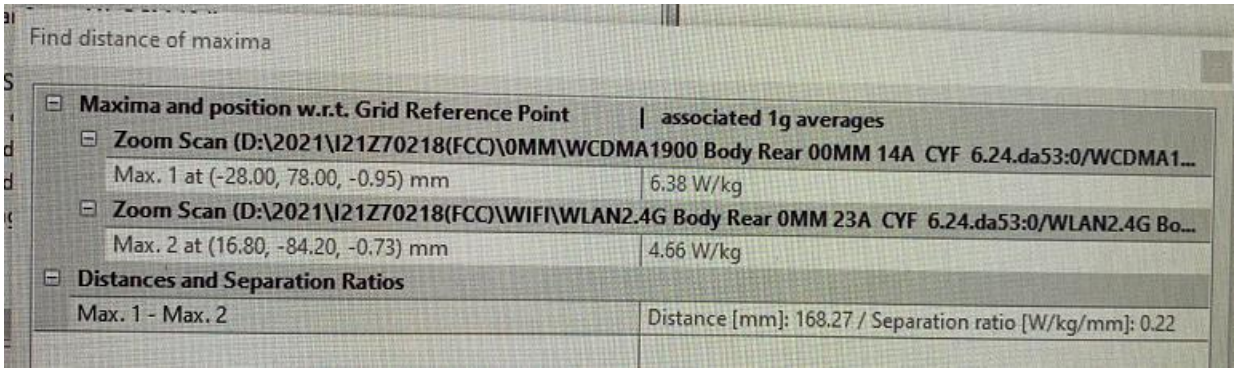
**Conclusion:**

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.

**Table 13.5: The sum of reported SAR values for main antenna and WiFi (Extremity SAR)**

| | band | Position | Main antenna | WiFi | Sum (10g) | Distance (mm) | Ratio |
|---|---|---|---|---|---|---|---|
| **Highest reported SAR value for Phablet** | WCDMA B2 | Rear 0mm | 3.60 | 1.62 | **4.65** | 168.27 | 0.07 |
| | LTE B2 | Rear 0mm | 2.32 | 1.62 | **3.94** | / | / |

According to the KDB 447498 D01, when the sum of SAR is larger than the limit, SAR test exclusion is determined by the SAR to peak location separation ratio. The ratio is determined by $(SAR1 + SAR2)^{1.5}/Ri$, rounded to two decimal digits, and must be ≤ 0.1 for all antenna pairs in the configuration to qualify for 10-g SAR test exclusion.




**Picture 13.1 Distance evaluation for WCDMA1900 and WiFi 2.4G Body**

# 14 SAR Test Result

It is determined by user manual for the distance between the EUT and the phantom bottom. The distance is 10 mm and just applied to the condition of body worn accessory.

It is performed for all SAR measurements with area scan based 1-g SAR estimation (Fast SAR). A zoom scan measurement is added when the estimated 1-g SAR is the highest measured SAR in each exposure configuration, wireless mode and frequency band combination or more than 1.2W/kg.

The calculated SAR is obtained by the following formula:

$$\text{Reported SAR} = \text{Measured SAR} \times 10^{(P_{Target}-P_{Measured})/10}$$

Where $P_{Target}$ is the power of manufacturing upper limit;

$P_{Measured}$ is the measured power in chapter 11.

**Table 14.1: Duty Cycle**

| Mode | Duty Cycle |
|---|---|
| Speech for GSM850/1900 | 1:8.3 |
| GPRS&EGPRS for GSM 850/1900 | 1:2 |
| WCDMA&LTE FDD&5G NR | 1:1 |
| LTE TDD | 1:1.58 |

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

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

| Frequency | | Side | Test Position | SIM cards | SAR(1g) (W/kg) | Power Drift(dB) |
|---|---|---|---|---|---|---|
| MHz | Ch. | | | | | |
| 836.6 | 190 | Left | Cheek | S1 | 0.138 | 0.03 |
| 836.6 | 190 | Left | Cheek | S2 | 0.131 | 0.01 |

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

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

| requency | | Test Position | Spacing (mm) | SIM cards | SAR(1g) (W/kg) | Power Drift(dB) |
|---|---|---|---|---|---|---|
| MHz | Ch. | | | | | |
| 836.6 | 190 | Rear | 10 | S1 | 0.649 | -0.08 |
| 836.6 | 190 | Rear | 10 | S2 | 0.631 | 0.06 |

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

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

**Note**

**S1: SIM1**

**S2: SIM2**

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

**Table 14.1-1: SAR Values (GSM 850 MHz Band - Head)**

| Ambient Temperature: 22.9 ºC Liquid Temperature: 22.5ºC | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Side | Test Position | Figure No. | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | | |
| 251 | 848.8 | Left | Cheek | / | 31.71 | 33.5 | 0.071 | **0.11** | 0.091 | **0.14** | -0.03 |
| 190 | 836.6 | Left | Cheek | Fig.1 | 31.85 | 33.5 | 0.107 | **0.16** | 0.138 | **0.20** | 0.03 |
| 128 | 824.2 | Left | Cheek | / | 31.77 | 33.5 | 0.087 | **0.13** | 0.113 | **0.17** | 0.04 |
| 190 | 836.6 | Left | Tilt | / | 31.85 | 33.5 | 0.060 | **0.09** | 0.076 | **0.11** | 0.02 |
| 190 | 836.6 | Right | Cheek | / | 31.85 | 33.5 | 0.103 | **0.15** | 0.131 | **0.19** | 0.01 |
| 190 | 836.6 | Right | Tilt | / | 31.85 | 33.5 | 0.055 | **0.08** | 0.072 | **0.11** | -0.12 |
| 190 | 836.6 | Left | Cheek | S2 | 31.85 | 33.5 | 0.102 | **0.15** | 0.131 | **0.19** | 0.01 |

**Table 14.1-2: SAR Values (GSM 850 MHz Band - Body)**

| Ambient Temperature: 22.9 ºC Liquid Temperature: 22.5ºC | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Mode (number of timeslots) | Test Position | Figure No. | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | | |
| 190 | 836.6 | GPRS (4) | Front | / | 28.07 | 30 | 0.276 | **0.43** | 0.483 | **0.75** | -0.14 |
| 251 | 848.8 | GPRS (4) | Rear | / | 28 | 30 | 0.354 | **0.56** | 0.593 | **0.94** | 0.17 |
| 190 | 836.6 | GPRS (4) | Rear | Fig.2 | 28.07 | 30 | 0.379 | **0.59** | 0.649 | **1.01** | -0.08 |
| 128 | 824.2 | GPRS (4) | Rear | / | 28.02 | 30 | 0.338 | **0.53** | 0.564 | **0.89** | -0.09 |
| 190 | 836.6 | GPRS (4) | Left | / | 28.07 | 30 | 0.074 | **0.12** | 0.108 | **0.17** | 0.18 |
| 190 | 836.6 | GPRS (4) | Right | / | 28.07 | 30 | 0.124 | **0.19** | 0.187 | **0.29** | -0.16 |
| 190 | 836.6 | GPRS (4) | Bottom | / | 28.07 | 30 | 0.217 | **0.34** | 0.444 | **0.69** | -0.20 |
| 190 | 836.6 | EGPRS (4) | Rear | / | 28.07 | 30 | 0.367 | **0.57** | 0.632 | **0.99** | 0.10 |
| 251 | 848.8 | GPRS (4) | Rear | S2 | 28.07 | 30 | 0.368 | **0.57** | 0.631 | **0.98** | 0.06 |

Note: The distance between the EUT and the phantom bottom is 10mm.

**Table 14.1-3: SAR Values (GSM 1900 MHz Band - Head)**

| Ambient Temperature: 22.9 ºC Liquid Temperature: 22.5ºC | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Side | Test Position | Figure No. | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | | |
| 810 | 1909.8 | Left | Cheek | / | 28.35 | 30 | 0.078 | **0.11** | 0.124 | **0.18** | -0.18 |
| 661 | 1880 | Left | Cheek | / | 28.41 | 30 | 0.064 | **0.09** | 0.100 | **0.14** | 0.07 |
| 512 | 1850.2 | Left | Cheek | Fig.3 | 28.37 | 30 | 0.079 | **0.11** | 0.125 | **0.18** | 0.05 |
| 661 | 1880 | Left | Tilt | / | 28.41 | 30 | <0.01 | <0.01 | <0.01 | <0.01 | / |
| 661 | 1880 | Right | Cheek | / | 28.41 | 30 | 0.035 | **0.05** | 0.052 | **0.07** | 0.16 |
| 661 | 1880 | Right | Tilt | / | 28.41 | 30 | 0.029 | **0.04** | 0.049 | **0.07** | 0.01 |
| 512 | 1850.2 | Left | Cheek | S2 | 28.37 | 30 | 0.069 | **0.10** | 0.113 | **0.16** | 0.02 |

**Table 14.1-4: SAR Values (GSM 1900 MHz Band – Body)**

| Ambient Temperature: 22.9 ºC Liquid Temperature: 22.5ºC | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Mode (number of timeslots) | Test Position | Figure No. | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g)(W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | | |
| 661 | 1880 | GPRS (4) | Front | / | 25.26 | 27 | 0.279 | **0.42** | 0.502 | **0.75** | 0.18 |
| 810 | 1909.8 | GPRS (4) | Rear | Fig.4 | 25.22 | 27 | 0.440 | **0.66** | 0.783 | **1.18** | -0.06 |
| 661 | 1880 | GPRS (4) | Rear | / | 25.26 | 27 | 0.403 | **0.60** | 0.739 | **1.10** | -0.16 |
| 512 | 1850.2 | GPRS (4) | Rear | / | 25.28 | 27 | 0.411 | **0.61** | 0.734 | **1.09** | 0.19 |
| 661 | 1880 | GPRS (4) | Left | / | 25.26 | 27 | 0.206 | **0.31** | 0.406 | **0.61** | -0.19 |
| 661 | 1880 | GPRS (4) | Bottom | / | 25.26 | 27 | 0.401 | **0.60** | 0.730 | **1.09** | -0.12 |
| 810 | 1909.8 | EGPRS (4) | Rear | / | 25.32 | 27 | 0.415 | **0.61** | 0.756 | **1.11** | 0.15 |
| 810 | 1909.8 | GPRS (4) | Rear | S2 | 25.22 | 27 | 0.420 | **0.63** | 0.774 | **1.17** | 0.01 |
| 810 | 1909.8 | GPRS (4) | Rear | Single SIM | 25.22 | 27 | 0.423 | **0.64** | 0.765 | **1.15** | 0.16 |

Note: The distance between the EUT and the phantom bottom is 10mm

**Table 14.1-5: SAR Values (WCDMA 1900 MHz Band - Head)**

| Ambient Temperature: 22.9 ºC Liquid Temperature: 22.5ºC | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Side | Test Position | Figure No. | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g)(W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | | |
| 9538 | 1907.6 | Left | Cheek | Fig.5 | 23.6 | 24.5 | 0.234 | **0.29** | 0.378 | **0.47** | -0.15 |
| 9400 | 1880 | Left | Cheek | / | 23.49 | 24.5 | 0.214 | **0.27** | 0.348 | **0.44** | -0.16 |
| 9262 | 1852.4 | Left | Cheek | / | 23.52 | 24.5 | 0.202 | **0.25** | 0.321 | **0.40** | 0.15 |
| 9400 | 1880 | Left | Tilt | / | 23.49 | 24.5 | 0.129 | **0.16** | 0.214 | **0.27** | -0.04 |
| 9400 | 1880 | Right | Cheek | / | 23.49 | 24.5 | 0.128 | **0.16** | 0.212 | **0.27** | -0.06 |
| 9400 | 1880 | Right | Tilt | / | 23.49 | 24.5 | 0.099 | **0.12** | 0.171 | **0.22** | 0.02 |
| 9400 | 1880 | Left | Cheek | S2 | 23.6 | 24.5 | 0.213 | **0.26** | 0.356 | **0.44** | 0.12 |

**Table 14.1-6: SAR Values (WCDMA 1900 MHz Band – Body Worn)**

| Ambient Temperature: 22.9 °C Liquid Temperature: 22.5°C | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Test Position | Figure No. | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | |
| 9400 | 1880 | Front | / | 23.9 | 24.5 | 0.237 | **0.27** | 0.403 | **0.46** | 0.17 |
| 9538 | 1907.6 | Rear | Fig.6 | 23.88 | 24.5 | 0.307 | **0.35** | 0.527 | **0.61** | 0.08 |
| 9400 | 1880 | Rear | / | 23.9 | 24.5 | 0.289 | **0.33** | 0.501 | **0.58** | -0.07 |
| 9262 | 1852.4 | Rear | / | 23.91 | 24.5 | 0.274 | **0.31** | 0.470 | **0.54** | 0.17 |
| 9538 | 1907.6 | Rear | S2 | 23.88 | 24.5 | 0.289 | **0.33** | 0.511 | **0.59** | 0.01 |

Note: The distance between the EUT and the phantom bottom is 15mm

**Table 14.1-7: SAR Values (WCDMA 1900 MHz Band – Hotspot)**

| Ambient Temperature: 22.9 °C Liquid Temperature: 22.5°C | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Test Position | Figure No. | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | |
| 9400 | 1880 | Front | / | 22.06 | 22.5 | 0.306 | **0.34** | 0.558 | **0.62** | 0.02 |
| 9538 | 1907.6 | Rear | Fig.7 | 22.11 | 22.5 | 0.461 | **0.50** | 0.810 | **0.89** | -0.03 |
| 9400 | 1880 | Rear | / | 22.06 | 22.5 | 0.440 | **0.49** | 0.774 | **0.86** | 0.06 |
| 9262 | 1852.4 | Rear | / | 22.1 | 22.5 | 0.397 | **0.44** | 0.701 | **0.77** | -0.02 |
| 9400 | 1880 | Left | / | 22.06 | 22.5 | 0.223 | **0.25** | 0.448 | **0.50** | -0.16 |
| 9400 | 1880 | Bottom | / | 22.06 | 22.5 | 0.321 | **0.36** | 0.629 | **0.70** | 0.12 |
| 9400 | 1880 | Rear | S2 | 22.11 | 22.5 | 0.455 | **0.50** | 0.790 | **0.86** | 0.02 |

Note: The distance between the EUT and the phantom bottom is 10mm

**Table 14.1-8: SAR Values (WCDMA 1700 MHz Band - Head)**

| Ambient Temperature: 22.9 °C Liquid Temperature: 22.5°C | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Side | Test Position | Figure No. | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g)(W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | | |
| 1513 | 1752.6 | Left | Cheek | Fig.8 | 23.79 | 24.5 | 0.195 | **0.23** | 0.304 | **0.36** | 0.18 |
| 1412 | 1732.4 | Left | Cheek | / | 23.77 | 24.5 | 0.184 | **0.22** | 0.281 | **0.33** | 0.01 |
| 1312 | 1712.4 | Left | Cheek | / | 23.72 | 24.5 | 0.160 | **0.19** | 0.246 | **0.29** | -0.17 |
| 1412 | 1732.4 | Left | Tilt | / | 23.77 | 24.5 | 0.083 | **0.10** | 0.137 | **0.16** | 0.05 |
| 1412 | 1732.4 | Right | Cheek | / | 23.77 | 24.5 | 0.113 | **0.13** | 0.180 | **0.21** | -0.09 |
| 1412 | 1732.4 | Right | Tilt | / | 23.77 | 24.5 | 0.058 | **0.07** | 0.100 | **0.12** | -0.15 |
| 1513 | 1752.6 | Left | Cheek | S2 | 23.79 | 24.5 | 0.188 | **0.22** | 0.289 | **0.34** | 0.12 |

**Table 14.1-9: SAR Values (WCDMA 1900 MHz Band – Body Worn)**

| Ambient Temperature: 22.9 °C Liquid Temperature: 22.5°C | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Test Position | Figure No. | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | |
| 1412 | 1732.4 | Front | / | 23.77 | 24.5 | 0.246 | **0.29** | 0.374 | **0.44** | 0.02 |
| 1513 | 1752.6 | Rear | Fig.9 | 23.79 | 24.5 | 0.341 | **0.40** | 0.525 | **0.62** | -0.08 |
| 1412 | 1732.4 | Rear | / | 23.77 | 24.5 | 0.306 | **0.36** | 0.469 | **0.55** | -0.19 |
| 1312 | 1712.4 | Rear | / | 23.72 | 24.5 | 0.282 | **0.34** | 0.424 | **0.51** | 0.11 |
| 1513 | 1752.6 | Front | S2 | 23.79 | 24.5 | 0.323 | **0.38** | 0.512 | **0.60** | 0.02 |

Note: The distance between the EUT and the phantom bottom is 15mm

**Table 14.1-10: SAR Values (WCDMA 1700 MHz Band – Hotspot)**

| Ambient Temperature: 22.9 °C Liquid Temperature: 22.5°C | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Test Position | Figure No. | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | |
| 1412 | 1732.4 | Front | / | 22.17 | 22.5 | 0.256 | **0.28** | 0.374 | **0.40** | -0.07 |
| 1513 | 1752.6 | Rear | Fig.10 | 22.22 | 22.5 | 0.412 | **0.44** | 0.632 | **0.67** | -0.07 |
| 1412 | 1732.4 | Rear | / | 22.17 | 22.5 | 0.383 | **0.41** | 0.587 | **0.63** | 0.18 |
| 1312 | 1712.4 | Rear | / | 22.14 | 22.5 | 0.357 | **0.39** | 0.536 | **0.58** | 0.20 |
| 1412 | 1732.4 | Left | / | 22.17 | 22.5 | 0.205 | **0.22** | 0.338 | **0.36** | -0.13 |
| 1412 | 1732.4 | Bottom | / | 22.17 | 22.5 | 0.313 | **0.34** | 0.519 | **0.56** | 0.06 |
| 1513 | 1752.6 | Rear | S2 | 22.22 | 22.5 | 0.398 | **0.42** | 0.612 | **0.65** | 0.02 |

Note: The distance between the EUT and the phantom bottom is 10mm

**Table 14.1-11: SAR Values (WCDMA 850 MHz Band - Head)**

| Ambient Temperature: 22.9 °C Liquid Temperature: 22.5°C | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Side | Test Position | Figure No. | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | | |
| 4183 | 836.6 | Left | Cheek | / | 23.75 | 25 | 0.124 | **0.17** | 0.160 | **0.21** | -0.20 |
| 4183 | 836.6 | Left | Tilt | / | 23.75 | 25 | 0.079 | **0.11** | 0.099 | **0.13** | 0.02 |
| 4233 | 846.6 | Right | Cheek | / | 23.63 | 25 | 0.124 | **0.17** | 0.162 | **0.22** | 0.20 |
| 4183 | 836.6 | Right | Cheek | / | 23.75 | 25 | 0.157 | **0.21** | 0.204 | **0.27** | 0.07 |
| 4132 | 826.4 | Right | Cheek | Fig.11 | 23.86 | 25 | 0.172 | **0.22** | 0.221 | **0.29** | -0.19 |
| 4183 | 836.6 | Right | Tilt | / | 23.75 | 25 | 0.088 | **0.12** | 0.112 | **0.15** | 0.20 |
| 4233 | 846.6 | Right | Cheek | S2 | 23.86 | 25 | 0.168 | **0.22** | 0.212 | **0.28** | 0.16 |

**Table 14.1-12: SAR Values (WCDMA 850 MHz Band - Body)**

| Ambient Temperature: 22.9 ºC Liquid Temperature: 22.5ºC | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Test Position | Figure No. | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | |
| 4183 | 836.6 | Front | / | 23.75 | 25 | 0.183 | **0.24** | 0.320 | **0.43** | 0.04 |
| 4233 | 846.6 | Rear | / | 23.75 | 25 | 0.207 | **0.28** | 0.365 | **0.49** | 0.20 |
| 4183 | 836.6 | Rear | / | 23.63 | 25 | 0.221 | **0.30** | 0.394 | **0.54** | -0.17 |
| 4132 | 826.4 | Rear | Fig.12 | 23.75 | 25 | 0.243 | **0.32** | 0.418 | **0.56** | -0.05 |
| 4183 | 836.6 | Left | / | 23.75 | 25 | <0.01 | <0.01 | <0.01 | <0.01 | / |
| 4183 | 836.6 | Right | / | 23.75 | 25 | 0.048 | **0.06** | 0.075 | **0.10** | 0.20 |
| 4183 | 836.6 | Bottom | / | 23.75 | 25 | 0.155 | **0.21** | 0.312 | **0.42** | 0.05 |
| 4132 | 826.4 | Rear | S2 | 23.75 | 25 | 0.234 | **0.31** | 0.398 | **0.53** | 0.02 |

Note: The distance between the EUT and the phantom bottom is 10mm.

**Table 14.1-13: SAR Values (LTE Band2 - Head)**

| Ambient Temperature: 22.9 ºC Liquid Temperature: 22.5ºC | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Mode | Side | Test Position | Figure No. | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | | | |
| 18700 | 1860 | 1RB_Mid | Left | Cheek | Fig.13 | 24 | 24.5 | 0.260 | **0.29** | 0.422 | **0.47** | -0.07 |
| 18700 | 1860 | 1RB_Mid | Left | Tilt | / | 24 | 24.5 | 0.100 | **0.11** | 0.155 | **0.17** | -0.08 |
| 18700 | 1860 | 1RB_Mid | Right | Cheek | / | 24 | 24.5 | 0.150 | **0.17** | 0.225 | **0.25** | 0.15 |
| 18700 | 1860 | 1RB_Mid | Right | Tilt | / | 24 | 24.5 | 0.119 | **0.13** | 0.205 | **0.23** | -0.07 |
| 18700 | 1860 | 50RB-Mid | Left | Cheek | / | 22.9 | 23.5 | 0.199 | **0.23** | 0.318 | **0.37** | -0.20 |
| 18700 | 1860 | 50RB-Mid | Left | Tilt | / | 22.9 | 23.5 | 0.073 | **0.08** | 0.112 | **0.13** | -0.17 |
| 18700 | 1860 | 50RB-Mid | Right | Cheek | / | 22.9 | 23.5 | 0.133 | **0.15** | 0.202 | **0.23** | -0.05 |
| 18700 | 1860 | 50RB-Mid | Right | Tilt | / | 22.9 | 23.5 | 0.101 | **0.12** | 0.171 | **0.20** | -0.03 |
| 18700 | 1860 | 1RB_Mid | Left | Cheek | S2 | 24 | 24.5 | 0.246 | **0.28** | 0.399 | **0.45** | 0.02 |

Note1: The LTE mode is QPSK_20MHz.

**Table 14.1-14: SAR Values (LTE Band2 – Body worn)**

| Ambient Temperature: 22.9 °C Liquid Temperature: 22.5°C | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Mode | Figure No. | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | |
| 18700 | 1860 | 1RB-Mid Front | Fig.14 | 24 | 24.5 | 0.246 | **0.28** | 0.379 | **0.43** | 0.01 |
| 18700 | 1860 | 1RB-Mid Rear | / | 24 | 24.5 | 0.245 | **0.27** | 0.355 | **0.40** | 0.01 |
| 18700 | 1860 | 50RB-Low Front | / | 22.9 | 23.5 | 0.195 | **0.22** | 0.300 | **0.34** | 0.14 |
| 18700 | 1860 | 50RB-Low Rear | / | 22.9 | 23.5 | 0.187 | **0.21** | 0.127 | **0.15** | -0.03 |
| 18700 | 1860 | 1RB-Mid Rear | S2 | 24 | 24.5 | 0.239 | **0.27** | 0.366 | **0.41** | 0.02 |

Note: The distance between the EUT and the phantom bottom is 15mm. The LTE mode is QPSK_20MHz.

**Table 14.1-15: SAR Values (LTE Band2 – Hotspot)**

| Ambient Temperature: 22.9 °C Liquid Temperature: 22.5°C | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Mode | Figure No. | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | |
| 18700 | 1860 | 1RB-Mid Front | / | 21.67 | 22.5 | 0.315 | **0.38** | 0.550 | **0.67** | 0.08 |
| 19100 | 1900 | 1RB-Mid Rear | / | 21.63 | 22.5 | 0.317 | **0.39** | 0.532 | **0.65** | -0.11 |
| 18900 | 1880 | 1RB-Mid Rear | / | 21.62 | 22.5 | 0.421 | **0.52** | 0.733 | **0.90** | 0.07 |
| 18700 | 1860 | 1RB-Mid Rear | Fig.15 | 21.67 | 22.5 | 0.435 | **0.53** | 0.759 | **0.92** | 0.02 |
| 18700 | 1860 | 100RB Rear | / | 21.67 | 22.5 | 0.403 | **0.49** | 0.702 | **0.85** | 0.16 |
| 18700 | 1860 | 1RB-Mid Left | / | 21.67 | 22.5 | 0.253 | **0.31** | 0.466 | **0.56** | 0.08 |
| 18700 | 1860 | 1RB-Mid Bottom | / | 21.67 | 22.5 | 0.311 | **0.38** | 0.543 | **0.66** | 0.20 |
| 18900 | 1880 | 50RB-Low Front | / | 21.19 | 22.5 | 0.289 | **0.39** | 0.505 | **0.68** | 0.12 |
| 19100 | 1900 | 50RB-Low Rear | / | 21.15 | 22.5 | 0.354 | **0.48** | 0.623 | **0.85** | 0.14 |
| 18900 | 1880 | 50RB-Low Rear | / | 21.19 | 22.5 | 0.342 | **0.46** | 0.611 | **0.83** | -0.09 |
| 18700 | 1860 | 50RB-Low Rear | / | 21.18 | 22.5 | 0.383 | **0.52** | 0.654 | **0.89** | 0.06 |
| 18900 | 1880 | 50RB-Low Left | / | 21.19 | 22.5 | 0.237 | **0.32** | 0.456 | **0.62** | 0.03 |
| 18900 | 1880 | 50RB-Low Bottom | / | 21.19 | 22.5 | 0.275 | **0.37** | 0.479 | **0.65** | 0.00 |
| 18700 | 1860 | 1RB-Mid Rear | S2 | 21.67 | 22.5 | 0.415 | **0.50** | 0.729 | **0.88** | 0.01 |

Note: The distance between the EUT and the phantom bottom is 10mm. The LTE mode is QPSK_20MHz.

**Table 14.1-16: SAR Values (LTE Band5 - Head)**

| Ambient Temperature: 22.9 °C Liquid Temperature: 22.5°C | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Mode | Side | Test Position | Figure No. | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | | | |
| 20450 | 829 | 1RB_Low | Left | Cheek | / | 23.92 | 24.5 | 0.116 | **0.13** | 0.145 | **0.17** | -0.16 |
| 20450 | 829 | 1RB_Low | Left | Tilt | / | 23.92 | 24.5 | 0.081 | **0.09** | 0.100 | **0.11** | -0.05 |
| 20450 | 829 | 1RB_Low | Right | Cheek | Fig.16 | 23.92 | 24.5 | 0.141 | **0.16** | 0.183 | **0.21** | -0.09 |
| 20450 | 829 | 1RB_Low | Right | Tilt | / | 23.92 | 24.5 | 0.091 | **0.10** | 0.114 | **0.13** | 0.06 |
| 20525 | 836.5 | 25RB-Low | Left | Cheek | / | 22.87 | 23.5 | 0.092 | **0.11** | 0.119 | **0.14** | -0.16 |
| 20525 | 836.5 | 25RB-Low | Left | Tilt | / | 22.87 | 23.5 | 0.068 | **0.08** | 0.085 | **0.10** | -0.12 |
| 20525 | 836.5 | 25RB-Low | Right | Cheek | / | 22.87 | 23.5 | 0.104 | **0.12** | 0.133 | **0.15** | 0.01 |
| 20525 | 836.5 | 25RB-Low | Right | Tilt | / | 22.87 | 23.5 | 0.072 | **0.08** | 0.087 | **0.10** | -0.05 |
| 20450 | 829 | 1RB_Low | Right | Cheek | S2 | 23.92 | 24.5 | 0.138 | **0.16** | 0.169 | **0.19** | 0.09 |

Note1: The LTE mode is QPSK_10MHz.

**Table 14.1-17: SAR Values (LTE Band5 – Body)**

| Ambient Temperature: 22.9 °C Liquid Temperature: 22.5°C | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Mode | Figure No. | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | |
| 20450 | 829 | 1RB-Low Front | / | 23.92 | 24.5 | 0.140 | **0.16** | 0.208 | **0.24** | -0.19 |
| 20450 | 829 | 1RB-Low Rear | / | 23.92 | 24.5 | 0.199 | **0.23** | 0.301 | **0.34** | 0.02 |
| 20450 | 829 | 1RB-Low Left | / | 23.92 | 24.5 | 0.056 | **0.06** | 0.073 | **0.08** | 0.09 |
| 20450 | 829 | 1RB-Low Right | / | 23.92 | 24.5 | 0.142 | **0.16** | 0.185 | **0.21** | -0.12 |
| 20450 | 829 | 1RB-Low Bottom | Fig.17 | 23.92 | 24.5 | 0.158 | **0.18** | 0.302 | **0.35** | -0.11 |
| 20525 | 836.5 | 25RB-Low Front | / | 22.87 | 23.5 | 0.096 | **0.11** | 0.150 | **0.17** | -0.14 |
| 20525 | 836.5 | 25RB-Low Left | / | 22.87 | 23.5 | 0.143 | **0.17** | 0.209 | **0.24** | 0.04 |
| 20525 | 836.5 | 25RB-Low Right | / | 22.87 | 23.5 | 0.048 | **0.06** | 0.053 | **0.06** | -0.14 |
| 20525 | 836.5 | 25RB-Low Bottom | / | 22.87 | 23.5 | 0.108 | **0.12** | 0.142 | **0.16** | -0.08 |
| 20525 | 836.5 | 1RB-Low Rear | S2 | 22.87 | 23.5 | 0.122 | **0.14** | 0.233 | **0.27** | 0.2 |

Note: The distance between the EUT and the phantom bottom is 10mm. The LTE mode is QPSK_10MHz.

**Table 14.1-18: SAR Values (LTE Band7 ANT0 - Head)**

| Ambient Temperature: 22.2 ℃ Liquid Temperature: 22 ℃ | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Mode | Side | Test Position | Figure No./Note | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g)(W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | | | |
| 20850 | 2510 | 1RB_Mid | Left | Cheek | / | 23.74 | 24.5 | 0.074 | **0.09** | 0.145 | **0.17** | -0.05 |
| 20850 | 2510 | 1RB_Mid | Left | Tilt | / | 23.74 | 24.5 | 0.063 | **0.08** | 0.129 | **0.15** | 0.05 |
| 20850 | 2510 | 1RB_Mid | Right | Cheek | Fig.18 | 23.74 | 24.5 | 0.079 | **0.09** | 0.158 | **0.19** | 0.02 |
| 20850 | 2510 | 1RB_Mid | Right | Tilt | / | 23.74 | 24.5 | 0.030 | **0.04** | 0.057 | **0.07** | -0.08 |
| 20850 | 2510 | 50RB_Mid | Left | Cheek | / | 22.68 | 23.5 | 0.061 | **0.07** | 0.118 | **0.14** | 0.01 |
| 20850 | 2510 | 50RB_Mid | Left | Tilt | / | 22.68 | 23.5 | 0.055 | **0.07** | 0.111 | **0.13** | 0.04 |
| 20850 | 2510 | 50RB_Mid | Right | Cheek | / | 22.68 | 23.5 | 0.068 | **0.08** | 0.134 | **0.16** | -0.20 |
| 20850 | 2510 | 50RB_Mid | Right | Tilt | / | 22.68 | 23.5 | 0.027 | **0.03** | 0.051 | **0.06** | -0.15 |
| 20850 | 2510 | 1RB_Mid | Left | Cheek | S2 | 23.74 | 24.5 | 0.071 | **0.08** | 0.149 | **0.18** | 0.03 |

Note: The LTE mode is QPSK_20MHz.

**Table 14.1-19: SAR Values (LTE Band7 ANT0 – Body worn)**

| Ambient Temperature: 22.9 ℃ Liquid Temperature: 22.5℃ | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Mode | Figure No. | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | |
| 20850 | 2510 | 1RB-Mid Front | / | 23.74 | 24.5 | 0.091 | **0.11** | 0.168 | **0.20** | 0.06 |
| 20850 | 2510 | 1RB-Mid Rear | Fig.19 | 23.74 | 24.5 | 0.237 | **0.28** | 0.447 | **0.53** | -0.01 |
| 20850 | 2510 | 50RB-Mid Front | / | 22.68 | 23.5 | 0.071 | **0.09** | 0.132 | **0.16** | 0.17 |
| 20850 | 2510 | 50RB-Mid Rear | / | 22.68 | 23.5 | 0.188 | **0.23** | 0.353 | **0.43** | -0.03 |
| 20850 | 2510 | 1RB-Mid Rear | S2 | 23.74 | 24.5 | 0.213 | **0.25** | 0.412 | **0.49** | 0.03 |

Note: The distance between the EUT and the phantom bottom is 15mm. The LTE mode is QPSK_20MHz.

**Table 14.1-20: SAR Values (LTE Band7 ANT0 –Hotspot)**

| Ambient Temperature: 22.9 °C Liquid Temperature: 22.5°C | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Mode | Figure No. | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | |
| 21100 | 2535 | 1RB-High Front | / | 19.82 | 21 | 0.099 | **0.13** | 0.207 | **0.27** | -0.13 |
| 21100 | 2535 | 1RB-Mid Rear | / | 19.82 | 21 | 0.260 | **0.34** | 0.539 | **0.71** | -0.05 |
| 21100 | 2535 | 1RB-High Left | / | 19.82 | 21 | 0.058 | **0.08** | 0.110 | **0.14** | -0.04 |
| 21100 | 2535 | 1RB-High Right | / | 19.82 | 21 | 0.069 | **0.09** | 0.132 | **0.17** | -0.01 |
| 21350 | 2560 | 1RB-Mid Bottom | / | 19.78 | 21 | 0.284 | **0.38** | 0.623 | **0.83** | 0.06 |
| 21100 | 2535 | 1RB-Mid Bottom | Fig.20 | 19.82 | 21 | 0.308 | **0.40** | 0.664 | **0.87** | 0.05 |
| 20850 | 2510 | 1RB-Mid Bottom | / | 19.79 | 21 | 0.272 | **0.36** | 0.611 | **0.81** | -0.11 |
| 21100 | 2535 | 100RB Bottom | / | 19.28 | 21 | 0.218 | **0.32** | 0.534 | **0.79** | 0.09 |
| 21100 | 2535 | 50RB-High Front | / | 19.32 | 21 | 0.094 | **0.14** | 0.195 | **0.29** | -0.08 |
| 21100 | 2535 | 50RB-High Rear | / | 19.32 | 21 | 0.233 | **0.34** | 0.488 | **0.72** | -0.09 |
| 21100 | 2535 | 50RB-High Left | / | 19.32 | 21 | 0.050 | **0.07** | 0.091 | **0.13** | 0.15 |
| 21100 | 2535 | 50RB-High Right | / | 19.32 | 21 | 0.069 | **0.10** | 0.133 | **0.20** | -0.14 |
| 21350 | 2560 | 50RB-High Bottom | / | 19.3 | 21 | 0.257 | **0.38** | 0.561 | **0.83** | 0.19 |
| 21100 | 2535 | 50RB-High Bottom | / | 19.32 | 21 | 0.271 | **0.40** | 0.585 | **0.86** | -0.07 |
| 20850 | 2510 | 50RB-High Bottom | / | 19.28 | 21 | 0.224 | **0.33** | 0.534 | **0.79** | 0.08 |
| 21100 | 2535 | 1RB-Mid Bottom | S2 | 19.82 | 21 | 0.298 | **0.39** | 0.651 | **0.85** | 0.01 |

Note: The distance between the EUT and the phantom bottom is 10mm. The LTE mode is QPSK_20MHz.

**Table 14.1-21: SAR Values (LTE Band7 ANT4 – Head for ENDC)**

| Ambient Temperature: 22.2 °C Liquid Temperature: 22 °C | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Mode | Side | Test Position | Figure No./Note | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g)(W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | | | |
| 21350 | 2560 | 1RB_Mid | Left | Cheek | / | 15.89 | 16.5 | 0.059 | **0.07** | 0.125 | **0.14** | -0.17 |
| 21350 | 2560 | 1RB_Mid | Left | Tilt | / | 15.89 | 16.5 | 0.089 | **0.10** | 0.194 | **0.22** | 0.06 |
| 21350 | 2560 | 1RB_Mid | Right | Cheek | / | 15.89 | 16.5 | 0.128 | **0.15** | 0.289 | **0.33** | 0.09 |
| 21350 | 2560 | 1RB_Mid | Right | Tilt | Fig.21 | 15.89 | 16.5 | 0.179 | **0.21** | 0.437 | **0.50** | 0.05 |
| 21350 | 2560 | 50RB_Mid | Left | Cheek | / | 15.85 | 16.5 | 0.059 | **0.07** | 0.125 | **0.15** | -0.19 |
| 21350 | 2560 | 50RB_Mid | Left | Tilt | / | 15.85 | 16.5 | 0.088 | **0.10** | 0.198 | **0.23** | 0.13 |
| 21350 | 2560 | 50RB_Mid | Right | Cheek | / | 15.85 | 16.5 | 0.101 | **0.12** | 0.214 | **0.25** | -0.05 |
| 21350 | 2560 | 50RB_Mid | Right | Tilt | / | 15.85 | 16.5 | 0.175 | **0.20** | 0.418 | **0.49** | 0.06 |
| 21350 | 2560 | 50RB_Mid | Left | Cheek | S2 | 15.89 | 16.5 | 0.165 | **0.19** | 0.418 | **0.48** | 0.02 |

Note: The LTE mode is QPSK_20MHz.

**Table 14.1-22: SAR Values (LTE Band7 ANT4 – Body worn for ENDC)**

| Ambient Temperature: 22.9 °C Liquid Temperature: 22.5°C | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Mode | Figure No. | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | |
| 21350 | 2560 | 1RB-Mid Front | Fig.22 | 23.55 | 24.5 | 0.119 | **0.15** | 0.235 | **0.29** | 0.02 |
| 21350 | 2560 | 1RB-Mid Rear | / | 23.55 | 24.5 | 0.103 | **0.13** | 0.201 | **0.25** | -0.11 |
| 21350 | 2560 | 50RB-Mid Front | / | 22.52 | 23.5 | 0.112 | **0.14** | 0.224 | **0.28** | -0.16 |
| 21350 | 2560 | 50RB-Mid Rear | / | 22.52 | 23.5 | 0.094 | **0.12** | 0.189 | **0.24** | 0.19 |
| 21350 | 2560 | 1RB-Mid Front | S2 | 23.55 | 24.5 | 0.109 | **0.14** | 0.221 | **0.28** | 0.04 |

Note: The distance between the EUT and the phantom bottom is 15mm. The LTE mode is QPSK_20MHz.

**Table 14.1-23: SAR Values (LTE Band7 ANT4 –Hotspot for ENDC)**

| Ambient Temperature: 22.9 °C Liquid Temperature: 22.5°C | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Mode | Figure No. | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | |
| 21350 | 2560 | 1RB-Mid Front | / | 20.22 | 20.5 | 0.116 | **0.12** | 0.230 | **0.25** | 0.15 |
| 21350 | 2560 | 1RB-Mid Rear | / | 20.22 | 20.5 | 0.119 | **0.13** | 0.234 | **0.25** | 0.12 |
| 21350 | 2560 | 1RB-Mid Left | / | 20.22 | 20.5 | 0.084 | **0.09** | 0.153 | **0.16** | -0.18 |
| 21350 | 2560 | 1RB-Mid Top | / | 20.22 | 20.5 | 0.197 | **0.21** | 0.459 | **0.49** | 0.05 |
| 21350 | 2560 | 50RB-Mid Front | / | 20.17 | 20.5 | 0.116 | **0.13** | 0.221 | **0.24** | 0.13 |
| 21350 | 2560 | 50RB-Mid Rear | / | 20.17 | 20.5 | 0.099 | **0.11** | 0.193 | **0.21** | -0.09 |
| 21350 | 2560 | 50RB-Mid Left | / | 20.17 | 20.5 | 0.088 | **0.09** | 0.164 | **0.18** | 0.16 |
| 21350 | 2560 | 50RB-Mid Top | Fig.23 | 20.17 | 20.5 | 0.195 | **0.21** | 0.475 | **0.51** | 0.14 |
| 21350 | 2560 | 50RB-Mid Top | S2 | 20.17 | 20.5 | 0.189 | **0.20** | 0.464 | **0.50** | 0.02 |

Note: The distance between the EUT and the phantom bottom is 10mm. The LTE mode is QPSK_20MHz.

**Table 14.1-24: SAR Values (LTE Band12 - Head)**

| Ambient Temperature: 22.9 ºC Liquid Temperature: 22.5ºC | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Mode | Side | Test Position | Figure No. | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | | | |
| 23060 | 704 | 1RB_Low | Left | Cheek | / | 23.92 | 24.5 | 0.103 | **0.12** | 0.128 | **0.15** | 0.06 |
| 23060 | 704 | 1RB_Low | Left | Tilt | / | 23.92 | 24.5 | 0.062 | **0.07** | 0.076 | **0.09** | -0.02 |
| 23060 | 704 | 1RB_Low | Right | Cheek | Fig.24 | 23.92 | 24.5 | 0.111 | **0.13** | 0.140 | **0.16** | 0.08 |
| 23060 | 704 | 1RB_Low | Right | Tilt | / | 23.92 | 24.5 | 0.050 | **0.06** | 0.062 | **0.07** | -0.08 |
| 23060 | 704 | 25RB-Low | Left | Cheek | / | 22.93 | 23.5 | 0.075 | **0.09** | 0.090 | **0.10** | 0.19 |
| 23060 | 704 | 25RB-Low | Left | Tilt | / | 22.93 | 23.5 | 0.061 | **0.07** | 0.073 | **0.08** | -0.11 |
| 23060 | 704 | 25RB-Low | Right | Cheek | / | 22.93 | 23.5 | 0.078 | **0.09** | 0.099 | **0.11** | -0.06 |
| 23060 | 704 | 25RB-Low | Right | Tilt | / | 22.93 | 23.5 | 0.085 | **0.10** | 0.102 | **0.12** | 0.12 |
| 23060 | 704 | 1RB_Low | Right | Cheek | S2 | 23.92 | 24.5 | 0.103 | **0.12** | 0.126 | **0.14** | 0.01 |

Note1: The LTE mode is QPSK_10MHz.

**Table 14.1-25: SAR Values (LTE Band12 – Body)**

| Ambient Temperature: 22.9 ºC Liquid Temperature: 22.5ºC | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Mode | Figure No. | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | |
| 23060 | 704 | 1RB-Low Front | / | 23.92 | 24.5 | 0.092 | **0.11** | 0.120 | **0.14** | 0.04 |
| 23060 | 704 | 1RB-Low Rear | / | 23.92 | 24.5 | 0.156 | **0.18** | 0.207 | **0.24** | -0.11 |
| 23060 | 704 | 1RB-Low Left | / | 23.92 | 24.5 | 0.077 | **0.09** | 0.110 | **0.13** | 0.03 |
| 23060 | 704 | 1RB-Low Right | Fig.24 | 23.92 | 24.5 | 0.149 | **0.17** | 0.213 | **0.24** | -0.07 |
| 23060 | 704 | 1RB-Low Bottom | / | 23.92 | 24.5 | 0.092 | **0.11** | 0.190 | **0.22** | 0.1 |
| 23060 | 704 | 25RB-Low Front | / | 22.93 | 23.5 | 0.065 | **0.07** | 0.100 | **0.11** | -0.08 |
| 23060 | 704 | 25RB-Low Left | / | 22.93 | 23.5 | 0.089 | **0.10** | 0.140 | **0.16** | 0.17 |
| 23060 | 704 | 25RB-Low Right | / | 22.93 | 23.5 | 0.063 | **0.07** | 0.088 | **0.10** | -0.13 |
| 23060 | 704 | 25RB-Low Bottom | / | 22.93 | 23.5 | 0.117 | **0.13** | 0.164 | **0.19** | 0.16 |
| 23060 | 704 | 1RB-Low Rear | S2 | 22.93 | 23.5 | 0.069 | **0.08** | 0.131 | **0.15** | 0.19 |

Note: The distance between the EUT and the phantom bottom is 10mm. The LTE mode is QPSK_10MHz.

**Table 14.1-26: SAR Values (LTE Band26 - Head)**

| Ambient Temperature: 22.9 °C Liquid Temperature: 22.5°C | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Mode | Side | Test Position | Figure No. | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | | | |
| 26775 | 822.5 | 1RB_Mid | Left | Cheek | / | 23.78 | 24.5 | 0.128 | **0.15** | 0.165 | **0.19** | 0.11 |
| 26775 | 822.5 | 1RB_Mid | Left | Tilt | / | 23.78 | 24.5 | 0.095 | **0.11** | 0.119 | **0.14** | 0.06 |
| 26775 | 822.5 | 1RB_Mid | Right | Cheek | Fig.26 | 23.78 | 24.5 | 0.142 | **0.17** | 0.184 | **0.22** | 0.04 |
| 26775 | 822.5 | 1RB_Mid | Right | Tilt | / | 23.78 | 24.5 | 0.087 | **0.10** | 0.109 | **0.13** | 0.12 |
| 26965 | 841.5 | 36RB-Low | Left | Cheek | / | 22.77 | 23.5 | 0.100 | **0.12** | 0.128 | **0.15** | 0.06 |
| 26965 | 841.5 | 36RB-Low | Left | Tilt | / | 22.77 | 23.5 | 0.066 | **0.08** | 0.083 | **0.10** | -0.11 |
| 26965 | 841.5 | 36RB-Low | Right | Cheek | / | 22.77 | 23.5 | 0.106 | **0.13** | 0.137 | **0.16** | -0.02 |
| 26965 | 841.5 | 36RB-Low | Right | Tilt | / | 22.77 | 23.5 | 0.063 | **0.07** | 0.096 | **0.11** | -0.07 |
| 26775 | 822.5 | 1RB_Mid | Right | Cheek | S2 | 23.78 | 24.5 | 0.138 | **0.16** | 0.179 | **0.21** | 0.02 |

Note1: The LTE mode is QPSK_15MHz.

**Table 14.1-27: SAR Values (LTE Band26 – Body)**

| Ambient Temperature: 22.9 °C Liquid Temperature: 22.5°C | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Mode | Figure No. | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | |
| 26775 | 822.5 | 1RB-Mid Front | / | 23.78 | 24.5 | 0.161 | **0.19** | 0.309 | **0.36** | -0.09 |
| 26775 | 822.5 | 1RB-Mid Rear | Fig.27 | 23.78 | 24.5 | 0.227 | **0.27** | 0.438 | **0.52** | 0.09 |
| 26775 | 822.5 | 1RB-Mid Left | / | 23.78 | 24.5 | 0.066 | **0.08** | 0.115 | **0.14** | -0.07 |
| 26775 | 822.5 | 1RB-Mid Right | / | 23.78 | 24.5 | 0.155 | **0.18** | 0.268 | **0.32** | 0.02 |
| 26775 | 822.5 | 1RB-Mid Bottom | / | 23.78 | 24.5 | 0.164 | **0.19** | 0.385 | **0.45** | 0.11 |
| 26965 | 841.5 | 36RB-Low Front | / | 22.77 | 23.5 | 0.124 | **0.15** | 0.240 | **0.28** | 0.09 |
| 26965 | 841.5 | 36RB-Low Left | / | 22.77 | 23.5 | 0.173 | **0.20** | 0.338 | **0.40** | -0.19 |
| 26965 | 841.5 | 36RB-Low Right | / | 22.77 | 23.5 | 0.051 | **0.06** | 0.090 | **0.11** | 0.17 |
| 26965 | 841.5 | 36RB-Low Bottom | / | 22.77 | 23.5 | 0.122 | **0.14** | 0.210 | **0.25** | 0.12 |
| 26965 | 841.5 | 1RB-Low Rear | S2 | 22.77 | 23.5 | 0.143 | **0.17** | 0.373 | **0.44** | 0.02 |

Note: The distance between the EUT and the phantom bottom is 10mm. The LTE mode is QPSK_15MHz.

**Table 14.1-28: SAR Values (LTE Band41 - Head)**

| Ambient Temperature: 22.9 ℃ Liquid Temperature: 22.5℃ | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Mode | Side | Test Position | Figure No. | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g)(W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | | | |
| 41490 | 2680 | 1RB-Mid | Left | Cheek | Fig.28 | 24.01 | 24.5 | 0.040 | **0.04** | 0.090 | **0.10** | 0.03 |
| 41490 | 2680 | 1RB-Mid | Left | Tilt | / | 24.01 | 24.5 | 0.027 | **0.03** | 0.060 | **0.07** | 0.09 |
| 41490 | 2680 | 1RB-Mid | Right | Cheek | / | 24.01 | 24.5 | <0.01 | <0.01 | <0.01 | <0.01 | / |
| 41490 | 2680 | 1RB-Mid | Right | Tilt | / | 24.01 | 24.5 | <0.01 | <0.01 | <0.01 | <0.01 | / |
| 41490 | 2680 | 50RB-Mid | Left | Cheek | / | 23.1 | 23.5 | 0.031 | **0.03** | 0.069 | **0.08** | 0.04 |
| 41490 | 2680 | 50RB-Mid | Left | Tilt | / | 23.1 | 23.5 | 0.025 | **0.03** | 0.056 | **0.06** | 0.20 |
| 41490 | 2680 | 50RB-Mid | Right | Cheek | / | 23.1 | 23.5 | <0.01 | <0.01 | <0.01 | <0.01 | / |
| 41490 | 2680 | 50RB-Mid | Right | Tilt | / | 23.1 | 23.5 | <0.01 | <0.01 | <0.01 | <0.01 | / |
| 41490 | 2680 | 1RB-Mid | Left | Cheek | S2 | 24.01 | 24.5 | 0.032 | **0.04** | 0.089 | **0.10** | 0.01 |

Note1: The LTE mode is QPSK_20MHz.

**Table 14.1-29: SAR Values (LTE Band41 - Body)**

| Ambient Temperature: 22.9 ℃ Liquid Temperature: 22.5℃ | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Mode | Figure No. | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | |
| 41490 | 2680 | 1RB-Mid Front | / | 24.01 | 24.5 | 0.081 | **0.09** | 0.158 | **0.18** | 0.00 |
| 41490 | 2680 | 1RB-Mid Rear | / | 24.01 | 24.5 | 0.119 | **0.13** | 0.239 | **0.27** | -0.03 |
| 41490 | 2680 | 1RB-Mid Left | / | 24.01 | 24.5 | 0.050 | **0.06** | 0.091 | **0.10** | -0.16 |
| 41490 | 2680 | 1RB-Mid Right | / | 24.01 | 24.5 | 0.030 | **0.03** | 0.056 | **0.06** | 0.04 |
| 41490 | 2680 | 1RB-Mid Bottom | Fig.29 | 24.01 | 24.5 | 0.147 | **0.16** | 0.304 | **0.34** | -0.16 |
| 41490 | 2680 | 50RB-Mid Front | / | 23.1 | 23.5 | 0.066 | **0.07** | 0.125 | **0.14** | 0.09 |
| 41490 | 2680 | 50RB-Mid Rear | / | 23.1 | 23.5 | 0.108 | **0.12** | 0.215 | **0.24** | -0.16 |
| 41490 | 2680 | 50RB-Mid Left | / | 23.1 | 23.5 | 0.038 | **0.04** | 0.073 | **0.08** | 0.15 |
| 41490 | 2680 | 50RB-Low Right | / | 23.1 | 23.5 | 0.028 | **0.03** | 0.050 | **0.05** | 0.08 |
| 41490 | 2680 | 50RB-Mid Bottom | / | 23.1 | 23.5 | 0.119 | **0.13** | 0.244 | **0.27** | 0.00 |
| 41490 | 2680 | 1RB-Mid Bottom | S2 | 24.01 | 24.5 | 0.138 | **0.15** | 0.287 | **0.32** | 0.02 |

Note: The distance between the EUT and the phantom bottom is 10mm. The LTE mode is QPSK_20MHz.

**Table 14.1-30: SAR Values (LTE Band66 ANT1 - Head)**

| Ambient Temperature: 22.2 ℃ Liquid Temperature: 22 ℃ | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Mode | Side | Test Position | Figure No./Note | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g)(W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | | | |
| 132322 | 1745 | 1RB_Mid | Left | Cheek | Fig.30 | 22.85 | 24.5 | 0.206 | **0.30** | 0.326 | **0.48** | -0.10 |
| 132322 | 1745 | 1RB_Mid | Left | Tilt | / | 22.85 | 24.5 | 0.114 | **0.17** | 0.186 | **0.27** | 0.02 |
| 132322 | 1745 | 1RB_Mid | Right | Cheek | / | 22.85 | 24.5 | 0.189 | **0.28** | 0.305 | **0.45** | 0.05 |
| 132322 | 1745 | 1RB_Mid | Right | Tilt | / | 22.85 | 24.5 | 0.138 | **0.20** | 0.236 | **0.35** | 0.00 |
| 132322 | 1745 | 50RB_Low | Left | Cheek | / | 21.81 | 23.5 | 0.170 | **0.25** | 0.270 | **0.40** | -0.12 |
| 132322 | 1745 | 50RB_Low | Left | Tilt | / | 21.81 | 23.5 | 0.083 | **0.12** | 0.135 | **0.20** | 0.01 |
| 132322 | 1745 | 50RB_Low | Right | Cheek | / | 21.81 | 23.5 | 0.109 | **0.16** | 0.174 | **0.26** | 0.04 |
| 132322 | 1745 | 50RB_Low | Right | Tilt | / | 21.81 | 23.5 | 0.050 | **0.07** | 0.083 | **0.12** | -0.05 |
| 132322 | 1745 | 1RB_Mid | Left | Cheek | S2 | 22.85 | 24.5 | 0.197 | **0.29** | 0.316 | **0.46** | 0.02 |

Note: The LTE mode is QPSK_20MHz.

**Table 14.1-31: SAR Values (LTE Band66 ANT1 – Body worn)**

| Ambient Temperature: 22.9 ℃ Liquid Temperature: 22.5℃ | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Mode | Figure No. | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | |
| 132322 | 1745 | 1RB-Mid Front | / | 22.85 | 24.5 | 0.200 | **0.29** | 0.421 | **0.62** | 0.10 |
| 132572 | 1770 | 1RB-Mid Rear | / | 22.74 | 24.5 | 0.243 | **0.36** | 0.532 | **0.80** | 0.07 |
| 132322 | 1745 | 1RB-Mid Rear | Fig.31 | 22.85 | 24.5 | 0.273 | **0.40** | 0.579 | **0.85** | 0.12 |
| 132072 | 1720 | 1RB-Mid Rear | / | 22.77 | 24.5 | 0.257 | **0.38** | 0.551 | **0.82** | -0.12 |
| 132322 | 1745 | 100RB Rear | / | 21.78 | 23.5 | 0.211 | **0.31** | 0.476 | **0.71** | 0.09 |
| 132322 | 1745 | 50RB-Low Front | / | 21.81 | 23.5 | 0.139 | **0.21** | 0.303 | **0.45** | -0.18 |
| 132322 | 1745 | 50RB-Low Rear | / | 21.81 | 23.5 | 0.208 | **0.31** | 0.460 | **0.68** | -0.09 |
| 132322 | 1745 | 1RB-Mid Rear | S2 | 22.85 | 24.5 | 0.268 | **0.39** | 0.566 | **0.83** | 0.02 |

Note: The distance between the EUT and the phantom bottom is 15mm. The LTE mode is QPSK_20MHz.

**Table 14.1-32: SAR Values (LTE Band66 ANT1 –Hotspot)**

| Ambient Temperature: 22.9 ºC Liquid Temperature: 22.5ºC | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Mode | Figure No. | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | |
| 132572 | 1770 | 1RB-Mid Front | / | 21.59 | 22.5 | 0.244 | **0.30** | 0.381 | **0.47** | -0.05 |
| 132572 | 1770 | 1RB-Mid Rear | / | 21.59 | 22.5 | 0.349 | **0.43** | 0.540 | **0.67** | -0.03 |
| 132572 | 1770 | 1RB-Mid Left | / | 21.59 | 22.5 | 0.174 | **0.21** | 0.306 | **0.38** | 0.17 |
| 132572 | 1770 | 1RB-Mid Top | Fig.32 | 21.59 | 22.5 | 0.343 | **0.42** | 0.576 | **0.71** | 0.13 |
| 132572 | 1770 | 50RB-Low Front | / | 21.07 | 22.5 | 0.192 | **0.27** | 0.296 | **0.41** | 0.02 |
| 132572 | 1770 | 50RB-Low Rear | / | 21.07 | 22.5 | 0.208 | **0.29** | 0.487 | **0.68** | 0.06 |
| 132572 | 1770 | 50RB-Low Left | / | 21.07 | 22.5 | 0.192 | **0.27** | 0.296 | **0.41** | -0.17 |
| 132572 | 1770 | 50RB-Low Top | / | 21.07 | 22.5 | 0.293 | **0.41** | 0.490 | **0.68** | -0.20 |
| 132572 | 1770 | 1RB-Mid Top | S2 | 21.59 | 22.5 | 0.321 | **0.40** | 0.563 | **0.69** | 0.02 |
| 132572 | 1770 | 1RB-Mid Front | Note2 | 18.51 | 20 | 0.095 | **0.13** | 0.139 | **0.20** | 0.09 |
| 132572 | 1770 | 1RB-Mid Rear | Note2 | 18.51 | 20 | 0.138 | **0.19** | 0.213 | **0.30** | 0.06 |
| 132572 | 1770 | 1RB-Mid Left | Note2 | 18.51 | 20 | 0.071 | **0.10** | 0.123 | **0.17** | 0.01 |
| 132572 | 1770 | 1RB-Mid Top | Note2 | 18.51 | 20 | 0.128 | **0.18** | 0.212 | **0.30** | 0.03 |
| 122322 | 1745 | 50RB-Low Front | Note2 | 17.97 | 20 | 0.100 | **0.16** | 0.157 | **0.25** | 0.04 |
| 122322 | 1745 | 50RB-Low Rear | Note2 | 17.97 | 20 | 0.143 | **0.23** | 0.221 | **0.35** | -0.04 |
| 122322 | 1745 | 50RB-Low Left | Note2 | 17.97 | 20 | 0.072 | **0.11** | 0.126 | **0.20** | -0.13 |
| 122322 | 1745 | 50RB-Low Top | Note2 | 17.97 | 20 | 0.132 | **0.21** | 0.216 | **0.34** | 0.07 |

Note1: The distance between the EUT and the phantom bottom is 10mm. The LTE mode is QPSK_20MHz.

Note2: The results are only for ENDC.

**Table 14.1-33: SAR Values (LTE Band66 ANT4 – Head for ENDC)**

| Ambient Temperature: 22.2 °C | | | | | | | | Liquid Temperature: 22 °C | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Mode | Side | Test Position | Figure No./Note | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g)(W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | | | |
| 132072 | 1720 | 1RB_Mid | Left | Cheek | / | 16.35 | 16.5 | 0.228 | **0.24** | 0.421 | **0.44** | -0.16 |
| 132072 | 1720 | 1RB_Mid | Left | Tilt | / | 16.35 | 16.5 | 0.313 | **0.32** | 0.621 | **0.64** | 0.01 |
| 132072 | 1720 | 1RB_Mid | Right | Cheek | / | 16.35 | 16.5 | 0.276 | **0.29** | 0.560 | **0.58** | -0.02 |
| 132072 | 1720 | 1RB_Mid | Right | Tilt | Fig.33 | 16.35 | 16.5 | 0.355 | **0.37** | 0.768 | **0.79** | 0.16 |
| 132072 | 1720 | 50RB_High | Left | Cheek | / | 16.14 | 16.5 | 0.231 | **0.25** | 0.431 | **0.47** | 0.04 |
| 132072 | 1720 | 50RB_High | Left | Tilt | / | 16.14 | 16.5 | 0.316 | **0.34** | 0.624 | **0.68** | 0.01 |
| 132072 | 1720 | 50RB_High | Right | Cheek | / | 16.14 | 16.5 | 0.245 | **0.27** | 0.479 | **0.52** | -0.15 |
| 132072 | 1720 | 50RB_High | Right | Tilt | / | 16.14 | 16.5 | 0.354 | **0.38** | 0.712 | **0.77** | 0.04 |
| 132072 | 1720 | 1RB_Mid | Right | Tilt | S2 | 16.35 | 16.5 | 0.332 | **0.34** | 0.754 | **0.78** | 0.02 |
| 132072 | 1720 | 1RB_Mid | Right | Tilt | Singel SIM | 16.35 | 16.5 | 0.342 | **0.35** | 0.748 | **0.77** | -0.03 |

Note: The LTE mode is QPSK_20MHz.

**Table 14.1-34: SAR Values (LTE Band66 ANT4 – Body worn for ENDC)**

| Ambient Temperature: 22.9 °C | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Mode | Figure No. | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | |
| 132072 | 1720 | 1RB-Mid Front | / | 23.65 | 24.5 | 0.275 | **0.33** | 0.455 | **0.55** | 0.01 |
| 132072 | 1720 | 1RB-Mid Rear | Fig.34 | 23.65 | 24.5 | 0.287 | **0.35** | 0.489 | **0.59** | 0.03 |
| 132072 | 1720 | 50RB-High Front | / | 23.65 | 24.5 | 0.254 | **0.31** | 0.425 | **0.52** | -0.1 |
| 132072 | 1720 | 50RB-High Rear | / | 23.65 | 24.5 | 0.254 | **0.31** | 0.420 | **0.51** | 0.17 |
| 132072 | 1720 | 1RB-Mid Rear | S2 | 23.65 | 24.5 | 0.268 | **0.33** | 0.478 | **0.58** | 0.02 |

Note: The distance between the EUT and the phantom bottom is 15mm. The LTE mode is QPSK_20MHz.

**Table 14.1-35: SAR Values (LTE Band66 ANT4 –Hotspot for ENDC)**

| Ambient Temperature: 22.9 ℃ Liquid Temperature: 22.5℃ | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Mode | Figure No. | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | |
| 132072 | 1720 | 1RB-Mid Front | / | 20.05 | 21 | 0.266 | **0.33** | 0.487 | **0.61** | -0.15 |
| 132072 | 1720 | 1RB-Mid Rear | / | 20.05 | 21 | 0.268 | **0.33** | 0.488 | **0.61** | 0.16 |
| 132072 | 1720 | 1RB-Mid Left | / | 20.05 | 21 | 0.072 | **0.09** | 0.121 | **0.15** | 0.19 |
| 132072 | 1720 | 1RB-Mid Top | / | 20.05 | 21 | 0.291 | **0.36** | 0.552 | **0.69** | -0.12 |
| 132072 | 1720 | 50RB-High Front | / | 20.11 | 21 | 0.272 | **0.33** | 0.489 | **0.60** | -0.13 |
| 132072 | 1720 | 50RB-High Rear | / | 20.11 | 21 | 0.315 | **0.39** | 0.570 | **0.70** | 0.06 |
| 132072 | 1720 | 50RB-High Left | / | 20.11 | 21 | 0.076 | **0.09** | 0.128 | **0.16** | 0.17 |
| 132072 | 1720 | 50RB-High Top | Fig.35 | 20.11 | 21 | 0.337 | **0.41** | 0.642 | **0.79** | 0.16 |
| 132072 | 1720 | 1RB-Mid Top | S2 | 20.11 | 21 | 0.318 | **0.39** | 0.621 | **0.76** | 0.02 |

Note1: The distance between the EUT and the phantom bottom is 10mm. The LTE mode is QPSK_20MHz.

## 14.2 SAR results for 5G NR

**Table 14.2-1: SAR Values (5G NR n5-Head)**

| Ambient Temperature: 22.2 ℃ Liquid Temperature: 22 ℃ | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Side | Test Position | Figure No./Note | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | | |
| 167300 | 836.5 | Left | Cheek | / | 24.15 | 24.5 | 0.142 | **0.15** | 0.183 | **0.20** | -0.06 |
| 167300 | 836.5 | Left | Tilt | / | 24.15 | 24.5 | 0.091 | **0.10** | 0.113 | **0.12** | -0.14 |
| 167300 | 836.5 | Right | Cheek | Fig.36 | 24.15 | 24.5 | 0.186 | **0.20** | 0.242 | **0.26** | -0.06 |
| 167300 | 836.5 | Right | Tilt | / | 24.15 | 24.5 | 0.114 | **0.12** | 0.142 | **0.15** | -0.20 |
| 167300 | 836.5 | Right | Cheek | S2 | 24.15 | 24.5 | 0.172 | **0.19** | 0.213 | **0.23** | 0.02 |

**Table 14.2-2: SAR Values (5G NR n5-Body)**

| Ambient Temperature: 22.2 °C Liquid Temperature: 22 °C | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Test Position | Figure No./Note | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g)(W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | |
| 167300 | 836.5 | Front | / | 24.15 | 24.5 | 0.185 | **0.20** | 0.321 | **0.35** | -0.18 |
| 167300 | 836.5 | Rear | Fig.37 | 24.15 | 24.5 | 0.231 | **0.25** | 0.395 | **0.43** | -0.15 |
| 167300 | 836.5 | Left | / | 24.15 | 24.5 | <0.01 | <0.01 | <0.01 | <0.01 | / |
| 167300 | 836.5 | Right | / | 24.15 | 24.5 | 0.097 | **0.11** | 0.153 | **0.17** | 0.13 |
| 167300 | 836.5 | Bottom | / | 24.15 | 24.5 | 0.179 | **0.19** | 0.354 | **0.38** | -0.19 |
| 167300 | 836.5 | Rear | S2 | 24.15 | 24.5 | 0.215 | **0.23** | 0.378 | **0.41** | 0.06 |

Note: The distance between the EUT and the phantom bottom is 10mm.

**Table 14.2-3: SAR Values (5G NR n7-Head)**

| Ambient Temperature: 22.2 °C Liquid Temperature: 22 °C | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Side | Test Position | Figure No./Note | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | | |
| 513500 | 2567.5 | Left | Cheek | / | 16.01 | 16.5 | 0.054 | **0.06** | 0.128 | **0.14** | -0.11 |
| 513500 | 2567.5 | Left | Tilt | / | 16.01 | 16.5 | 0.075 | **0.08** | 0.174 | **0.19** | 0.00 |
| 513500 | 2567.5 | Right | Cheek | / | 16.01 | 16.5 | 0.164 | **0.18** | 0.247 | **0.28** | 0.03 |
| 513500 | 2567.5 | Right | Tilt | Fig.38 | 16.01 | 16.5 | 0.148 | **0.17** | 0.365 | **0.41** | 0.18 |
| 513500 | 2567.5 | Right | Cheek | S2 | 16.01 | 16.5 | 0.132 | **0.15** | 0.355 | **0.40** | 0.02 |

**Table 14.2-4: SAR Values (5G NR n7-Body worn)**

| Ambient Temperature: 22.2 °C Liquid Temperature: 22 °C | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Test Position | Figure No./Note | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g)(W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | |
| 513500 | 2567.5 | Front | Fig.39 | 24.38 | 24.5 | 0.120 | **0.12** | 0.239 | **0.25** | -0.09 |
| 513500 | 2567.5 | Rear | / | 24.38 | 24.5 | 0.102 | **0.10** | 0.199 | **0.20** | 0.17 |
| 513500 | 2567.5 | Front | S2 | 24.38 | 24.5 | 0.101 | **0.10** | 0.216 | **0.22** | 0.08 |

Note: The distance between the EUT and the phantom bottom is 15mm.

**Table 14.2-5: SAR Values (5G NR n7-Hotspot)**

| Ambient Temperature: 22.2 ℃ Liquid Temperature: 22 ℃ | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Test Position | Figure No./Note | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g)(W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | |
| 513500 | 2567.5 | Front | / | 20.48 | 20.5 | 0.071 | **0.07** | 0.143 | **0.14** | 0.05 |
| 513500 | 2567.5 | Rear | / | 20.48 | 20.5 | 0.058 | **0.06** | 0.117 | **0.12** | -0.13 |
| 513500 | 2567.5 | Left | / | 20.48 | 20.5 | 0.050 | **0.05** | 0.101 | **0.10** | -0.06 |
| 513500 | 2567.5 | Top | Fig.40 | 20.48 | 20.5 | 0.167 | **0.17** | 0.403 | **0.40** | -0.06 |
| 513500 | 2567.5 | Top | S2 | 20.48 | 20.5 | 0.156 | **0.16** | 0.389 | **0.39** | 0.02 |

Note: The distance between the EUT and the phantom bottom is 10mm.

## 14.3 WLAN Evaluation for 2.4G

According to the KDB248227 D01, SAR is measured for 2.4GHz 802.11b DSSS using the initial test position procedure.

**Head Evaluation**

**Table 14.3-1: SAR Values (WLAN - Head)– 802.11b (Fast SAR)**

| Ambient Temperature: 22.9 ℃ Liquid Temperature: 22.5℃ | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Frequency** | | **Side** | **Test Position** | **Figure No./ Note** | **Conducted Power (dBm)** | **Max. tune-up Power (dBm)** | **Measured SAR(10g) (W/kg)** | **Reported SAR(10g)(W/kg)** | **Measured SAR(1g) (W/kg)** | **Reported SAR(1g)(W/kg)** | **Power Drift (dB)** |
| Ch. | MHz | | | | | | | | | | |
| 1 | 2412 | Left | Cheek | / | 13.98 | 14 | 0.090 | **0.09** | 0.200 | **0.20** | 0.05 |
| 1 | 2412 | Left | Tilt | / | 13.98 | 14 | 0.116 | **0.12** | 0.285 | **0.29** | 0.04 |
| 1 | 2412 | Right | Cheek | / | 13.98 | 14 | 0.037 | **0.04** | 0.080 | **0.08** | -0.04 |
| 1 | 2412 | Right | Tilt | / | 13.98 | 14 | 0.039 | **0.04** | 0.077 | **0.08** | -0.04 |
| 1 | 2412 | Left | Tilt | S2 | 13.98 | 14 | 0.103 | **0.10** | 0.273 | **0.27** | 0.02 |

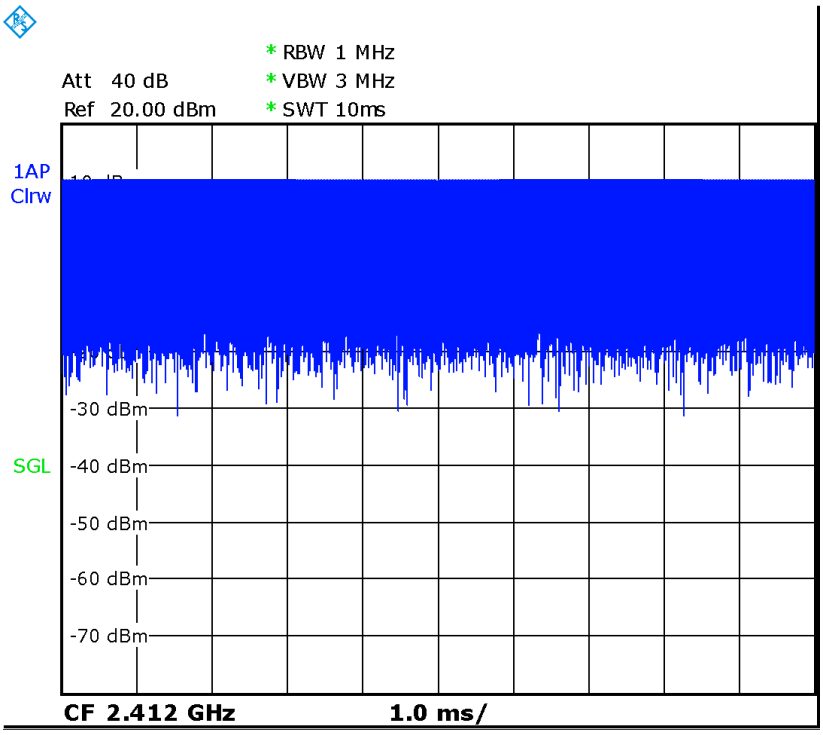
As shown above table, the initial test position for head is “Left Tilt”. So the head SAR of WLAN is presented as below:

**Table 14.3-2: SAR Values (WLAN - Head)– 802.11b (Full SAR)**

| Ambient Temperature: 22.9 ℃ Liquid Temperature: 22.5℃ | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Side | Test Position | Figure No./ Note | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g)(W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | | |
| 1 | 2412 | Left | Tilt | Fig.41 | 13.98 | 14 | 0.116 | **0.12** | 0.292 | **0.29** | 0.04 |

Note1: When the reported SAR of the initial test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position using subsequent highest estimated 1-g SAR conditions determined by area scans, on the highest maximum output power channel, until the reported SAR is ≤ 0.8 W/kg.
Note2: For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.

According to the KDB248227 D01, The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit. The scaled reported SAR is presented as below.




**Picture 14.3-1 Duty factor plot**

**Table 14.3-3: SAR Values (WLAN - Head) – 802.11b (Scaled Reported SAR)**

| Ambient Temperature: 22.9 ℃ Liquid Temperature: 22.5℃ | | | | | | | |
|---|---|---|---|---|---|---|---|
| Frequency | | Side | Test Position | Actual duty factor | maximum duty factor | Reported SAR (1g)(W/kg) | Scaled reported SAR (1g)(W/kg) |
| Ch. | MHz | | | | | | |
| 1 | 2412 | Left | Tilt | 100% | 100% | **0.29** | **0.29** |

SAR is not required for OFDM because the 802.11b adjusted SAR ≤ 1.2 W/kg.

**Body Evaluation**

**Table 14.3-4: SAR Values (WLAN - Body)– 802.11b (Fast SAR)**

| Ambient Temperature: 22.9 ℃ Liquid Temperature: 22.5℃ | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Frequency** | | **Test Position** | **Figure No./ Note** | **Conducted Power (dBm)** | **Max. tune-up Power (dBm)** | **Measured SAR(10g) (W/kg)** | **Reported SAR(10g)(W/kg)** | **Measured SAR(1g) (W/kg)** | **Reported SAR(1g)(W/kg)** | **Power Drift (dB)** |
| Ch. | MHz | | | | | | | | | |
| 6 | 2437 | Front | / | 19.33 | 19.5 | 0.064 | **0.07** | 0.142 | **0.15** | 0.17 |
| 6 | 2437 | Rear | / | 19.33 | 19.5 | 0.117 | **0.12** | 0.259 | **0.27** | -0.03 |
| 6 | 2437 | Right | / | 19.33 | 19.5 | 0.043 | **0.04** | 0.088 | **0.09** | -0.07 |
| 6 | 2437 | Top | / | 19.33 | 19.5 | 0.140 | **0.15** | 0.322 | **0.33** | 0.01 |
| 6 | 2437 | Top | S2 | 19.33 | 19.5 | 0.131 | **0.14** | 0.312 | **0.32** | 0.02 |

Note: The distance between the EUT and the phantom bottom is 10mm.

As shown above table, the initial test position for body is “Top 10mm”. So the body SAR of WLAN is presented as below:

**Table 14.3-5: SAR Values (WLAN - Body)– 802.11b (Full SAR)**

| Ambient Temperature: 22.9 ℃ Liquid Temperature: 22.5℃ | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Frequency | | Test Position | Figure No./ Note | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g)(W/kg) | Power Drift (dB) |
| Ch. | MHz | | | | | | | | | |
| 6 | 2437 | Rear | Fig.42 | 19.33 | 19.5 | 0.143 | **0.15** | 0.329 | **0.34** | 0.01 |

Note1: When the reported SAR of the initial test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position using subsequent highest estimated 1-g SAR conditions determined by area scans, on the highest maximum output power channel, until the reported SAR is ≤ 0.8 W/kg.

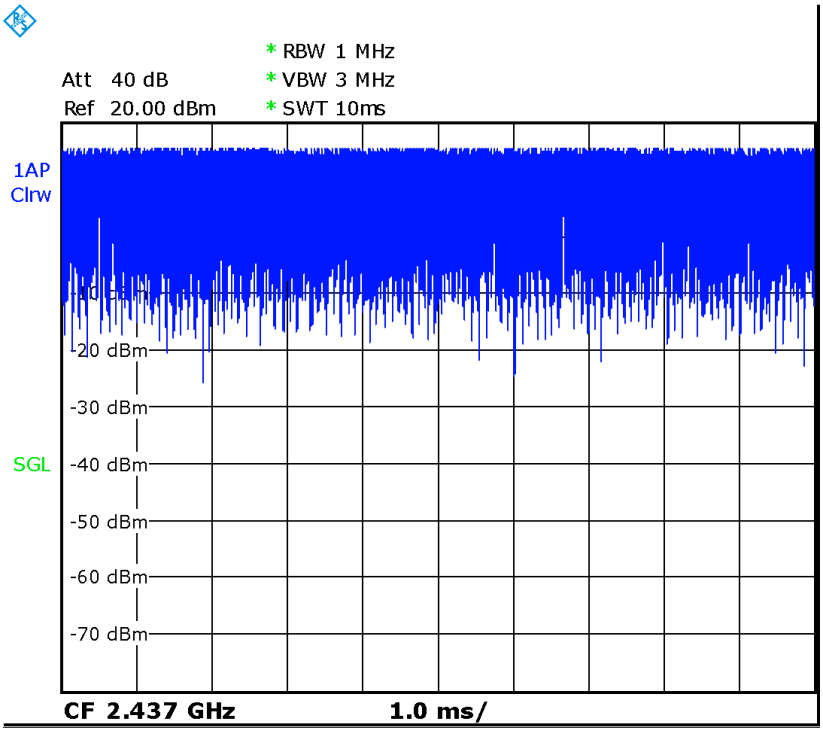
Note2: For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.

According to the KDB248227 D01, The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit. The scaled reported SAR is presented as below.

**Table 14.3-6: SAR Values (WLAN - Body) – 802.11b (Scaled Reported SAR)**

| Ambient Temperature: 22.9 ºC Liquid Temperature: 22.5ºC | | | | | | |
|---|---|---|---|---|---|---|
| Frequency | | Test Position | Actual duty factor | maximum duty factor | Reported SAR (1g)(W/kg) | Scaled reported SAR (1g)(W/kg) |
| Ch. | MHz | | | | | |
| 6 | 2437 | Top | 100% | 100% | **0.34** | **0.34** |

SAR is not required for OFDM because the 802.11b adjusted SAR ≤ 1.2 W/kg.




**Picture 14.3-2 Duty factor plot**

## 14.4 WLAN Evaluation For 5G

**Table 14.4-1: OFDM mode specified maximum output power of WLAN antenna**

| 802.11 mode | a | g | n | | ac | | | |
|---|---|---|---|---|---|---|---|---|
| Ch. BW(MHz) | 20 | 20 | 20 | 40 | 20 | 40 | 80 | 160 |
| U-NII-1 | X | X | X | X | X | X | X | |
| U-NII-2A | X | X | X | X | X | X | X | |
| U-NII-2C | X | X | X | X | X | X | X | |
| U-NII-3 | X | X | X | X | X | X | X | |
| § 15.247 (5.8 GHz) | | | | | | | | |
| X: maximum(conducted) output power(mW), including tolerance, specified for production units | | | | | | | | |

**Table 14.4-2: Maximum output power specified of WLAN antenna – Head**

| 802.11 mode | a | g | n | | ac | | | |
|---|---|---|---|---|---|---|---|---|
| Ch. BW(MHz) | 20 | 20 | 20 | 40 | 20 | 40 | 80 | 160 |
| U-NII-1 | 16 | | 16 | 16 | 18 | 16 | 16 | |
| U-NII-2A | 16 | | 16 | 16 | 18 | 16 | 16 | |
| U-NII-2C | 20 | | 20 | 20 | 20 | 20 | 20 | |
| U-NII-3 | 20 | | 20 | 20 | 20 | 20 | 20 | |
| § 15.247 (5.8 GHz) | | | | | | | | |

- The maximum output power specified for production units is the same for all channels, modulations and data rates in each channel bandwidth configuration of the 802.11a/g/n/ac modes.
- The blue highlighted cells represent highest output configurations in each standalone or aggregated frequency band, with tune-up tolerance included.

**Table 14.4-3: Maximum output power specified of WLAN antenna–Body**

| 802.11 mode | a | g | n | | ac | | | |
|---|---|---|---|---|---|---|---|---|
| Ch. BW(MHz) | 20 | 20 | 20 | 40 | 20 | 40 | 80 | 160 |
| U-NII-1 | 63 | | 50 | 40 | 50 | 35 | 40 | |
| U-NII-2A | 63 | | 50 | 40 | 50 | 35 | 40 | |
| U-NII-2C | 45 | | 40 | 50 | 45 | 50 | 45 | |
| U-NII-3 | 63 | | 63 | 63 | 63 | 63 | 63 | |
| § 15.247 (5.8 GHz) | | | | | | | | |

- The maximum output power specified for production units is the same for all channels, modulations and data rates in each channel bandwidth configuration of the 802.11a/g/n/ac modes.
- The blue highlighted cells represent highest output configurations in each standalone or aggregated frequency band, with tune-up tolerance included.

**Table 14.4-4: Maximum output power measured of WLAN antenna, for the applicable OFDM configurations according to the default power measurement procedures for selection initial test configurations – Head**

| 802.11 Mode | a | n | | ac | | |
|---|---|---|---|---|---|---|
| BW(MHz) | 20 | 20 | 40 | 20 | 40 | 80 |
| U-NII-1 | 36/40/44/48<br>Lower power | 36/40/44/48<br>Lower power | 38/46<br>Lower power | 36/40/44/48<br>**16/16/15/15** | 38/46<br>Lower power | 42<br>Lower power |
| U-NII-2A | 52/56/60/64<br>Lower power | 52/56/60/64<br>Lower power | 54/62<br>Lower power | 52/56/60/64<br>**16/16/16/17** | 54/62<br>Lower power | 58<br>Lower power |
| U-NII-2C | 100/104/108/112<br>116/120/124/128/<br>132/136/140/144<br>Lower power | 100/104/108/112<br>116/120/124/128/<br>132/136/140/144<br>Lower power | 102/110/118/<br>126/134/142<br>Lower power | 100/104/108/112<br>116/120/124/128/<br>132/136/140/144<br>Lower power | 102/110/118/<br>126/134/142<br>Lower power | 106/122<br>**16/16** |
| U-NII-3 | 149/153/157/161/<br>165<br>Lower power | 149/153/157/161/<br>165<br>Lower power | 151/159<br>Lower power | 149/153/157/161<br>/165<br>Lower power | 151/159<br>Lower power | 155<br>**18** |

- The **bold numbers** is the maximum output measured power (mW).
- Channels with measured maximum power within 0.25dB are considered to have the same measured output. Channels selected for initial test configuration are highlighted in yellow.

**Table 14.4-5: Maximum output power measured of WLAN antenna, for the applicable OFDM configurations according to the default power measurement procedures for selection initial test configurations – Body**

| 802.11 Mode | a | n | | ac | | |
|---|---|---|---|---|---|---|
| BW(MHz) | 20 | 20 | 40 | 20 | 40 | 80 |
| U-NII-1 | 36/40/44/48<br>**53/53/52/51** | 36/40/44/48<br>Lower power | 38/46<br>Lower power | 36/40/44/48<br>Lower power | 38/46<br>Lower power | 42<br>Lower power |
| U-NII-2A | 52/56/60/64<br>**54/57/58/52** | 52/56/60/64<br>Lower power | 54/62<br>Lower power | 52/56/60/64<br>Lower power | 54/62<br>Lower power | 58<br>Lower power |
| U-NII-2C | 100/104/108/112<br>116/120/124/128/<br>132/136/140/144<br>Lower power | 100/104/108/112<br>116/120/124/128/<br>132/136/140/144<br>Lower power | 102/110/118/<br>126/134<br>**28/55/56/54/<br>50** | 100/104/108/112<br>116/120/124/128/<br>132/136/140/144<br>Lower power | 102/110/118/<br>126/134/142<br>Lower power | 106/122/<br>138<br>Lower power |
| U-NII-3 | 149/153/157/161/<br>165<br>Lower power | 149/153/157/161/<br>165<br>Lower power | 151/159<br>Lower power | 149/153/157/161<br>/165<br>Lower power | 151/159<br>Lower power | 155<br>**59** |

- The **bold numbers** is the maximum output measured power (mW).
- Channels with measured maximum power within 0.25dB are considered to have the same measured output. Channels selected for initial test configuration are highlighted in yellow.

**Table 14.4-6: Reported SAR of initial test configuration for Head**

| 802.11 mode | a | n | | ac | | |
|---|---|---|---|---|---|---|
| **BW(MHz)** | **20** | **20** | **40** | **20** | **40** | **80** |
| **U-NII-1** | 36/40/44/48 | 36/40/44/48 | 38/46 | 36/40/44/48 | 38/46 | 42 |
| **U-NII-2A** | 52/56/60/64 | 52/56/60/64 | 54/62 | 52/56/60/64<br>**0.46** | 54/62 | 58 |
| **U-NII-2C** | 100/104/108/112/116/120/124/128/132/136/140/144 | 100/104/108/112/116/120/124/128/132/136/140/144 | 102/110/118/126/134/142 | 100/104/108/112/116/120/124/128/132/136/140/144 | 102/110/118/126/134/142 | 106/122<br>**0.34** |
| **U-NII-3** | 149/153/157/161/165<br>**0.51** | 149/153/157/161/165 | 151/159 | 149/153/157/161/165 | 151/159 | 155<br>**0.26** |
| Highest measured output power channel tested initially are in yellow highlight. | | | | | | |

**Table 14.4-7: Reported SAR of initial test configuration for Body**

| 802.11 mode | a | n | | ac | | |
|---|---|---|---|---|---|---|
| **BW(MHz)** | **20** | **20** | **40** | **20** | **40** | **80** |
| **U-NII-1** | 36/40/44/48 | 36/40/44/48 | 38/46 | 36/40/44/48 | 38/46 | 42 |
| **U-NII-2A** | 52/56/60/64<br>**0.41** | 52/56/60/64 | 54/62 | 52/56/60/64 | 54/62 | 58 |
| **U-NII-2C** | 100/104/108/112/116/120/124/128/132/136/140/144 | 100/104/108/112/116/120/124/128/132/136/140/144 | 102/110/118/126/134<br>**0.30** | 100/104/108/112/116/120/124/128/132/136/140/144 | 102/110/118/126/134/142 | 106/122/138 |
| **U-NII-3** | 149/153/157/161/165 | 149/153/157/161/165 | 151/159 | 149/153/157/161/165 | 151/159 | 155<br>**0.24** |
| Highest measured output power channel tested initially are in yellow highlight. | | | | | | |

**Table 14.4-8: SAR Values (WLAN 5G - Head)**

| Frequency | | Side | Test Position | Figure No. | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ch. | MHz | | | | | | | | | | |
| 64 | 5320 | Left | Cheek | / | 12.29 | 12.5 | 0.085 | **0.09** | 0.418 | **0.44** | 0.14 |
| 64 | 5320 | Left | Tilt | Fig.43 | 12.29 | 12.5 | 0.105 | **0.11** | 0.434 | **0.46** | 0.16 |
| 64 | 5320 | Right | Cheek | / | 12.29 | 12.5 | 0.050 | **0.05** | 0.211 | **0.22** | -0.13 |
| 64 | 5320 | Right | Tilt | / | 12.29 | 12.5 | 0.062 | **0.07** | 0.280 | **0.29** | -0.05 |
| 122 | 5610 | Left | Cheek | / | 12.12 | 13 | 0.050 | **0.06** | 0.221 | **0.27** | -0.09 |
| 122 | 5610 | Left | Tilt | / | 12.12 | 13 | 0.069 | **0.08** | 0.278 | **0.34** | -0.18 |
| 122 | 5610 | Right | Cheek | / | 12.12 | 13 | 0.048 | **0.06** | 0.172 | **0.21** | 0.01 |
| 122 | 5610 | Right | Tilt | / | 12.12 | 13 | 0.046 | **0.06** | 0.181 | **0.22** | 0.17 |
| 155 | 5775 | Left | Cheek | / | 12.55 | 13 | 0.050 | **0.06** | 0.210 | **0.23** | -0.11 |
| 155 | 5775 | Left | Tilt | / | 12.55 | 13 | 0.058 | **0.06** | 0.237 | **0.26** | 0.05 |
| 155 | 5775 | Right | Cheek | / | 12.55 | 13 | 0.035 | **0.04** | 0.134 | **0.15** | 0.01 |
| 155 | 5775 | Right | Tilt | / | 12.55 | 13 | 0.048 | **0.05** | 0.178 | **0.20** | 0.15 |
| 64 | 5320 | Left | Tilt | S2 | 12.29 | 12.5 | 0.097 | **0.10** | 0.412 | **0.43** | 0.02 |

**Table 14.4-9: SAR Values (WLAN 5G - Body)**

| Frequency | | Test Position | Figure No./Note | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g)(W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g) (W/kg) | Power Drift (dB) |
|---|---|---|---|---|---|---|---|---|---|---|
| Ch. | MHz | | | | | | | | | |
| 60 | 5300 | Front | / | 17.61 | 18 | 0.055 | **0.06** | 0.154 | **0.17** | -0.19 |
| 60 | 5300 | Rear | / | 17.61 | 18 | 0.046 | **0.05** | 0.113 | **0.12** | -0.16 |
| 60 | 5300 | Right | / | 17.61 | 18 | 0.015 | **0.02** | 0.043 | **0.05** | -0.16 |
| 60 | 5300 | Top | Fig.44 | 17.61 | 18 | 0.121 | **0.13** | 0.371 | **0.41** | -0.14 |
| 118 | 5590 | Front | / | 17.48 | 18 | 0.048 | **0.05** | 0.132 | **0.15** | 0.11 |
| 118 | 5590 | Rear | / | 17.48 | 18 | 0.036 | **0.04** | 0.095 | **0.11** | -0.16 |
| 118 | 5590 | Right | / | 17.48 | 18 | 0.011 | **0.01** | 0.037 | **0.04** | -0.08 |
| 118 | 5590 | Top | / | 17.48 | 18 | 0.090 | **0.10** | 0.270 | **0.30** | -0.2 |
| 155 | 5775 | Front | / | 17.68 | 18 | 0.041 | **0.04** | 0.123 | **0.13** | 0.09 |
| 155 | 5775 | Rear | / | 17.68 | 18 | 0.029 | **0.03** | 0.073 | **0.08** | -0.2 |
| 155 | 5775 | Right | / | 17.68 | 18 | 0.008 | **0.01** | 0.043 | **0.05** | 0.07 |
| 155 | 5775 | Top | / | 17.68 | 18 | 0.074 | **0.08** | 0.219 | **0.24** | -0.01 |
| 52 | 5260 | Top | S2 | 17.61 | 18 | 0.113 | **0.12** | 0.368 | **0.40** | 0.02 |

Note1: The distance between the EUT and the phantom bottom is 10mm.

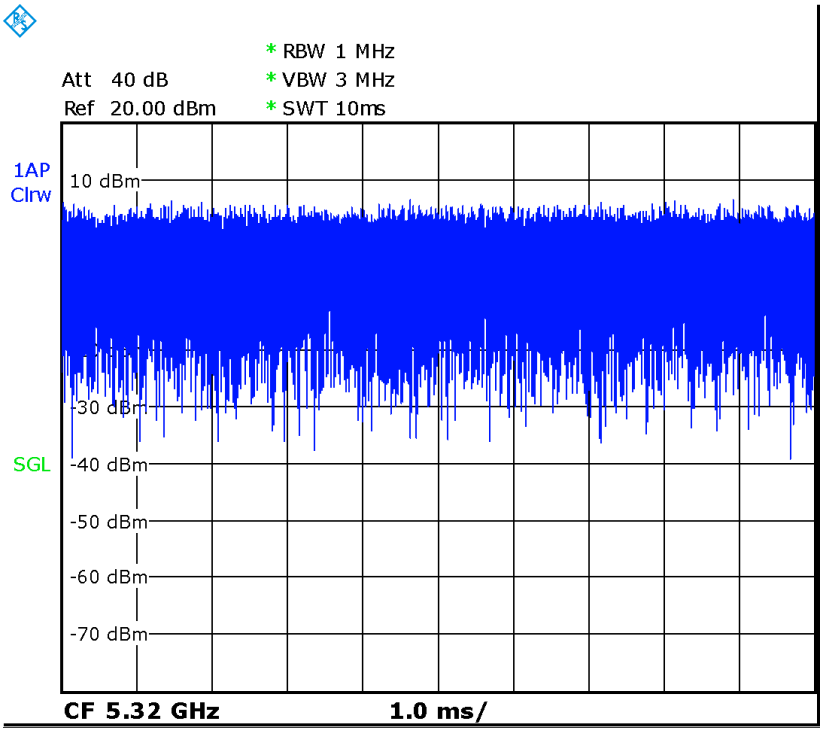
According to the KDB248227 D01, The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit. The scaled reported SAR is presented as below.

**Table 14.4-10: SAR Values (WLAN 5G - Head) (Scaled Reported SAR)**

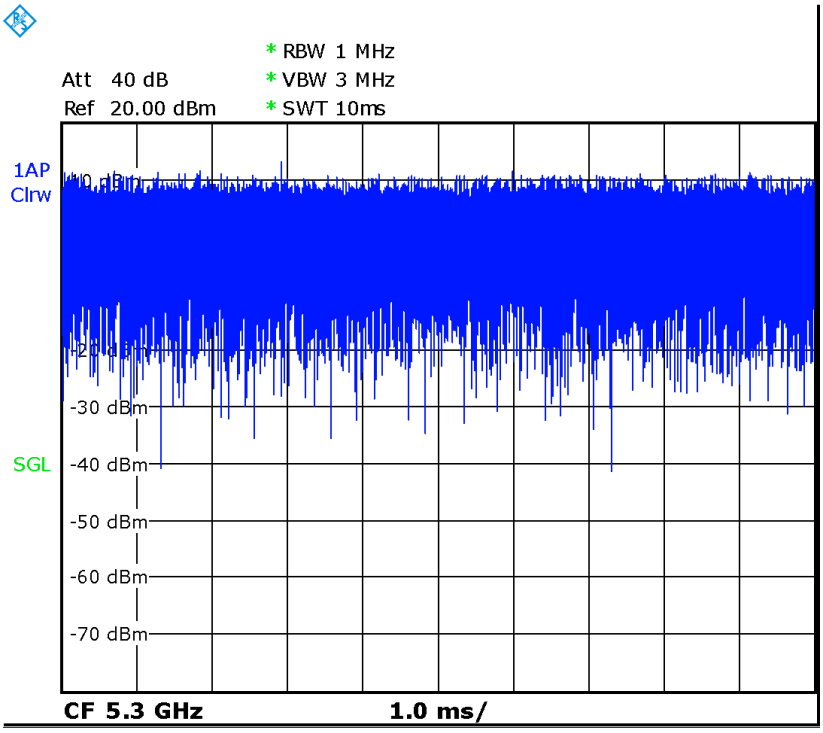
| Frequency | | Side | Test Position | Actual duty factor | maximum duty factor | Reported SAR (1g) (W/kg) | Scaled reported SAR (1g) (W/kg) |
|---|---|---|---|---|---|---|---|
| Ch. | MHz | | | | | | |
| 64 | 5320 | Left | Tilt | 100% | 100% | **0.46** | **0.46** |

**Table 14.4-11: SAR Values (WLAN 5G - Body) (Scaled Reported SAR)**

| Frequency | | Test Position | D (mm) | Actual duty factor | maximum duty factor | Reported SAR (1g) (W/kg) | Scaled reported SAR (1g) (W/kg) |
|---|---|---|---|---|---|---|---|
| Ch. | MHz | | | | | | |
| 60 | 5300 | Top | 10 | 100% | 100% | **0.41** | **0.41** |




**Picture 14.4-1 The plot of duty factor for Head**




**Picture 14.4-2 The plot of duty factor for Body**

## 14.5 SAR results for BT

**Table 14.5-1: SAR Values (BT - Head)**

| Frequency | | Side | Test Position | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g)( W/kg) | Power Drift (dB) |
|---|---|---|---|---|---|---|---|---|---|---|
| Ch. | MHz | | | | | | | | | |
| 39 | 2441 | Left | Cheek | 9.45 | 11 | <0.01 | <0.01 | <0.01 | <0.01 | / |
| 39 | 2441 | Left | Tilt | 9.45 | 11 | <0.01 | <0.01 | <0.01 | <0.01 | / |
| 39 | 2441 | Right | Cheek | 9.45 | 11 | <0.01 | <0.01 | <0.01 | <0.01 | / |
| 39 | 2441 | Right | Tilt | 9.45 | 11 | <0.01 | <0.01 | <0.01 | <0.01 | / |

**Table 14.5-2: SAR Values (BT - Body)**

| Frequency | | Test Position | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g) (W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g)( W/kg) | Power Drift (dB) |
|---|---|---|---|---|---|---|---|---|---|
| Ch. | MHz | | | | | | | | |
| 39 | 2441 | Front | 9.45 | 11 | <0.01 | <0.01 | <0.01 | <0.01 | / |
| 39 | 2441 | Rear | 9.45 | 11 | <0.01 | <0.01 | <0.01 | <0.01 | / |
| 39 | 2441 | Right | 9.45 | 11 | <0.01 | <0.01 | <0.01 | <0.01 | / |
| 39 | 2441 | Top | 9.45 | 11 | <0.01 | <0.01 | <0.01 | <0.01 | / |

Note1: The distance between the EUT and the phantom bottom is 10mm.

## 14.6 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 ≤ 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

**Table 14.6-1: SAR Values for phablet**

| Band | Frequency | | Test Position | Figure No./Note | Conducted Power (dBm) | Max. tune-up Power (dBm) | Measured SAR(10g) (W/kg) | Reported SAR(10g)(W/kg) | Measured SAR(1g) (W/kg) | Reported SAR(1g)(W/kg) | Power Drift (dB) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Ch. | MHz | | | | | | | | | |
| WCDMA B2 | 9538 | 1907.6 | Rear | / | 23.22 | 24.5 | 2.38 | **3.20** | 4.99 | **6.70** | 0.13 |
| WCDMA B2 | 9400 | 1880 | Rear | / | 23.13 | 24.5 | 2.09 | **2.87** | 4.38 | **6.00** | -0.06 |
| WCDMA B2 | 9262 | 1852.4 | Rear | / | 23.18 | 24.5 | 2.31 | **3.13** | 4.64 | **6.29** | 0.12 |
| WCDMA B2 | 9538 | 1907.6 | Front | / | 23.88 | 24.5 | 2.880 | **3.32** | 5.800 | **6.69** | 0.11 |
| WCDMA B2 | 9400 | 1880 | Front | / | 23.9 | 24.5 | 3.080 | **3.54** | 6.220 | **7.14** | -0.08 |
| WCDMA B2 | 9262 | 1852.4 | Front | Fig.45 | 23.91 | 24.5 | 3.140 | **3.60** | 6.380 | **7.31** | -0.15 |
| WCDMA B2 | 9538 | 1907.6 | Bottom | / | 23.88 | 24.5 | 2.730 | **3.15** | 6.460 | **7.45** | -0.06 |
| WCDMA B2 | 9400 | 1880 | Bottom | / | 23.76 | 24.5 | 2.530 | **3.00** | 5.770 | **6.84** | -0.19 |
| WCDMA B2 | 9262 | 1852.4 | Bottom | / | 23.91 | 24.5 | 2.650 | **3.04** | 6.070 | **6.95** | -0.09 |
| LTE B2 | 19100 | 1900 | Front | / | 23.95 | 24.5 | 1.710 | **1.94** | 3.310 | **3.76** | -0.19 |
| LTE B2 | 18900 | 1880 | Front | / | 23.98 | 24.5 | 1.880 | **2.12** | 3.730 | **4.20** | 0.09 |
| LTE B2 | 18700 | 1860 | Front | / | 24 | 24.5 | 1.740 | **1.95** | 3.410 | **3.83** | 0.03 |
| LTE B2 | 19100 | 1900 | Rear | / | 23.95 | 24.5 | 1.880 | **2.13** | 3.300 | **3.75** | -0.16 |
| LTE B2 | 18900 | 1880 | Rear | / | 23.98 | 24.5 | 2.000 | **2.25** | 3.590 | **4.05** | -0.01 |
| LTE B2 | 18700 | 1860 | Rear | / | 24 | 24.5 | 2.070 | **2.32** | 3.860 | **4.33** | 0.05 |
| LTE B2 | 19100 | 1900 | Bottom | / | 23.95 | 24.5 | 1.190 | **1.35** | 2.600 | **2.95** | -0.16 |
| LTE B2 | 18900 | 1880 | Bottom | / | 23.98 | 24.5 | 1.250 | **1.41** | 2.410 | **2.72** | 0.05 |
| LTE B2 | 18700 | 1860 | Bottom | / | 24 | 24.5 | 1.000 | **1.12** | 1.960 | **2.20** | -0.15 |
| WIFI2450 | 6 | 2437 | Front | / | 19.33 | 19.5 | 0.571 | **0.59** | 1.660 | **1.73** | 0.06 |
| WIFI2450 | 6 | 2437 | Rear | / | 19.33 | 19.5 | 1.560 | **1.62** | 4.660 | **4.85** | 0.11 |
| WIFI5G | 60 | 5300 | Front | / | 17.61 | 18 | 0.396 | **0.43** | 1.490 | **1.63** | 0.16 |
| WIFI5G | 60 | 5300 | Rear | / | 17.61 | 18 | 0.350 | **0.38** | 1.100 | **1.20** | -0.07 |

Note: The distance between the EUT and the phantom bottom is 0mm.

# 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; steps2) through 4) do not apply.

2) When the original highest measured SAR is ≥ 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 ≥ 1.45W/kg (~ 10% from the 1-g SAR limit).

4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20

**Table 15.1: SAR Measurement Variability for Body WCDMA1900 (1g)**

| Frequency | | Test Position | Spacing (mm) | Original SAR (W/kg) | First Repeated SAR (W/kg) | The Ratio | Second Repeated SAR (W/kg) |
|---|---|---|---|---|---|---|---|
| Ch. | MHz | | | | | | |
| 9538 | 1907.6 | Rear | 10 | 0.81 | 0.785 | 1.03 | / |

# 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Measurement system** | | | | | | | | | | |
| 1 | Probe calibration | B | 6.0 | N | 1 | 1 | 1 | 6.0 | 6.0 | ∞ |
| 2 | Isotropy | B | 4.7 | R | $\sqrt{3}$ | 0.7 | 0.7 | 1.9 | 1.9 | ∞ |
| 3 | Boundary effect | B | 1.0 | R | $\sqrt{3}$ | 1 | 1 | 0.6 | 0.6 | ∞ |
| 4 | Linearity | B | 4.7 | R | $\sqrt{3}$ | 1 | 1 | 2.7 | 2.7 | ∞ |
| 5 | Detection limit | B | 1.0 | N | 1 | 1 | 1 | 0.6 | 0.6 | ∞ |
| 6 | Readout electronics | B | 0.3 | R | $\sqrt{3}$ | 1 | 1 | 0.3 | 0.3 | ∞ |
| 7 | Response time | B | 0.8 | R | $\sqrt{3}$ | 1 | 1 | 0.5 | 0.5 | ∞ |
| 8 | Integration time | B | 2.6 | R | $\sqrt{3}$ | 1 | 1 | 1.5 | 1.5 | ∞ |
| 9 | RF ambient conditions-noise | B | 0 | R | $\sqrt{3}$ | 1 | 1 | 0 | 0 | ∞ |
| 10 | RFambient conditions-reflection | B | 0 | R | $\sqrt{3}$ | 1 | 1 | 0 | 0 | ∞ |
| 11 | Probe positioned mech. restrictions | B | 0.4 | R | $\sqrt{3}$ | 1 | 1 | 0.2 | 0.2 | ∞ |
| 12 | Probe positioning with respect to phantom shell | B | 2.9 | R | $\sqrt{3}$ | 1 | 1 | 1.7 | 1.7 | ∞ |
| 13 | Post-processing | B | 1.0 | R | $\sqrt{3}$ | 1 | 1 | 0.6 | 0.6 | ∞ |
| **Test sample related** | | | | | | | | | | |
| 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 | ∞ |
| **Phantom and set-up** | | | | | | | | | | |
| 17 | Phantom uncertainty | B | 4.0 | R | $\sqrt{3}$ | 1 | 1 | 2.3 | 2.3 | ∞ |
| 18 | Liquid conductivity (target) | B | 5.0 | R | $\sqrt{3}$ | 0.64 | 0.43 | 1.8 | 1.2 | ∞ |
| 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 | ∞ |
| 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Measurement system** | | | | | | | | | | |
| 1 | Probe calibration | B | 6.55 | N | 1 | 1 | 1 | 6.55 | 6.55 | ∞ |
| 2 | Isotropy | B | 4.7 | R | √3 | 0.7 | 0.7 | 1.9 | 1.9 | ∞ |
| 3 | Boundary effect | B | 2.0 | R | √3 | 1 | 1 | 1.2 | 1.2 | ∞ |
| 4 | Linearity | B | 4.7 | R | √3 | 1 | 1 | 2.7 | 2.7 | ∞ |
| 5 | Detection limit | B | 1.0 | R | √3 | 1 | 1 | 0.6 | 0.6 | ∞ |
| 6 | Readout electronics | B | 0.3 | R | √3 | 1 | 1 | 0.3 | 0.3 | ∞ |
| 7 | Response time | B | 0.8 | R | √3 | 1 | 1 | 0.5 | 0.5 | ∞ |
| 8 | Integration time | B | 2.6 | R | √3 | 1 | 1 | 1.5 | 1.5 | ∞ |
| 9 | RF ambient conditions-noise | B | 0 | R | √3 | 1 | 1 | 0 | 0 | ∞ |
| 10 | RFambient conditions-reflection | B | 0 | R | √3 | 1 | 1 | 0 | 0 | ∞ |
| 11 | Probe positioned mech. restrictions | B | 0.8 | R | √3 | 1 | 1 | 0.5 | 0.5 | ∞ |
| 12 | Probe positioning with respect to phantom shell | B | 6.7 | R | √3 | 1 | 1 | 3.9 | 3.9 | ∞ |
| 13 | Post-processing | B | 4.0 | R | √3 | 1 | 1 | 2.3 | 2.3 | ∞ |
| **Test sample related** | | | | | | | | | | |
| 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 | √3 | 1 | 1 | 2.9 | 2.9 | ∞ |
| **Phantom and set-up** | | | | | | | | | | |
| 17 | Phantom uncertainty | B | 4.0 | R | √3 | 1 | 1 | 2.3 | 2.3 | ∞ |
| 18 | Liquid conductivity (target) | B | 5.0 | R | √3 | 0.64 | 0.43 | 1.8 | 1.2 | ∞ |
| 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 | √3 | 0.6 | 0.49 | 1.7 | 1.4 | ∞ |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Measurement system** | | | | | | | | | | |
| 1 | Probe calibration | B | 6.0 | N | 1 | 1 | 1 | 6.0 | 6.0 | ∞ |
| 2 | Isotropy | B | 4.7 | R | $\sqrt{3}$ | 0.7 | 0.7 | 1.9 | 1.9 | ∞ |
| 3 | Boundary effect | B | 1.0 | R | $\sqrt{3}$ | 1 | 1 | 0.6 | 0.6 | ∞ |
| 4 | Linearity | B | 4.7 | R | $\sqrt{3}$ | 1 | 1 | 2.7 | 2.7 | ∞ |
| 5 | Detection limit | B | 1.0 | R | $\sqrt{3}$ | 1 | 1 | 0.6 | 0.6 | ∞ |
| 6 | Readout electronics | B | 0.3 | R | $\sqrt{3}$ | 1 | 1 | 0.3 | 0.3 | ∞ |
| 7 | Response time | B | 0.8 | R | $\sqrt{3}$ | 1 | 1 | 0.5 | 0.5 | ∞ |
| 8 | Integration time | B | 2.6 | R | $\sqrt{3}$ | 1 | 1 | 1.5 | 1.5 | ∞ |
| 9 | RF ambient conditions-noise | B | 0 | R | $\sqrt{3}$ | 1 | 1 | 0 | 0 | ∞ |
| 10 | RFambient conditions-reflection | B | 0 | R | $\sqrt{3}$ | 1 | 1 | 0 | 0 | ∞ |
| 11 | Probe positioned mech. Restrictions | B | 0.4 | R | $\sqrt{3}$ | 1 | 1 | 0.2 | 0.2 | ∞ |
| 12 | Probe positioning with respect to phantom shell | B | 2.9 | R | $\sqrt{3}$ | 1 | 1 | 1.7 | 1.7 | ∞ |
| 13 | Post-processing | B | 1.0 | R | $\sqrt{3}$ | 1 | 1 | 0.6 | 0.6 | ∞ |
| 14 | Fast SAR z-Approximation | B | 7.0 | R | $\sqrt{3}$ | 1 | 1 | 4.0 | 4.0 | ∞ |
| **Test sample related** | | | | | | | | | | |
| 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 | ∞ |
| **Phantom and set-up** | | | | | | | | | | |
| 18 | Phantom uncertainty | B | 4.0 | R | $\sqrt{3}$ | 1 | 1 | 2.3 | 2.3 | ∞ |
| 19 | Liquid conductivity (target) | B | 5.0 | R | $\sqrt{3}$ | 0.64 | 0.43 | 1.8 | 1.2 | ∞ |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 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 | ∞ |
| 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Measurement system** | | | | | | | | | | |
| 1 | Probe calibration | B | 6.55 | N | 1 | 1 | 1 | 6.55 | 6.55 | ∞ |
| 2 | Isotropy | B | 4.7 | R | $\sqrt{3}$ | 0.7 | 0.7 | 1.9 | 1.9 | ∞ |
| 3 | Boundary effect | B | 2.0 | R | $\sqrt{3}$ | 1 | 1 | 1.2 | 1.2 | ∞ |
| 4 | Linearity | B | 4.7 | R | $\sqrt{3}$ | 1 | 1 | 2.7 | 2.7 | ∞ |
| 5 | Detection limit | B | 1.0 | R | $\sqrt{3}$ | 1 | 1 | 0.6 | 0.6 | ∞ |
| 6 | Readout electronics | B | 0.3 | R | $\sqrt{3}$ | 1 | 1 | 0.3 | 0.3 | ∞ |
| 7 | Response time | B | 0.8 | R | $\sqrt{3}$ | 1 | 1 | 0.5 | 0.5 | ∞ |
| 8 | Integration time | B | 2.6 | R | $\sqrt{3}$ | 1 | 1 | 1.5 | 1.5 | ∞ |
| 9 | RF ambient conditions-noise | B | 0 | R | $\sqrt{3}$ | 1 | 1 | 0 | 0 | ∞ |
| 10 | RFambient conditions-reflection | B | 0 | R | $\sqrt{3}$ | 1 | 1 | 0 | 0 | ∞ |
| 11 | Probe positioned mech. Restrictions | B | 0.8 | R | $\sqrt{3}$ | 1 | 1 | 0.5 | 0.5 | ∞ |
| 12 | Probe positioning with respect to phantom shell | B | 6.7 | R | $\sqrt{3}$ | 1 | 1 | 3.9 | 3.9 | ∞ |
| 13 | Post-processing | B | 1.0 | R | $\sqrt{3}$ | 1 | 1 | 0.6 | 0.6 | ∞ |
| 14 | Fast SAR z-Approximation | B | 14.0 | R | $\sqrt{3}$ | 1 | 1 | 8.1 | 8.1 | ∞ |
| **Test sample related** | | | | | | | | | | |
| 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 | ∞ |
| **Phantom and set-up** | | | | | | | | | | |
| 18 | Phantom uncertainty | B | 4.0 | R | $\sqrt{3}$ | 1 | 1 | 2.3 | 2.3 | ∞ |
| 19 | Liquid conductivity (target) | B | 5.0 | R | $\sqrt{3}$ | 0.64 | 0.43 | 1.8 | 1.2 | ∞ |
| 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 | ∞ |
| 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 | January 14, 2021 | One year |
| 02 | Power meter | NRP2 | 106276 | May 11, 2021 | One year |
| 03 | Power sensor | NRP6A | 101369 | | |
| 04 | Signal Generator | E4438C | MY49071430 | February 1, 2021 | One Year |
| 05 | Amplifier | 60S1G4 | 0331848 | No Calibration Requested | |
| 06 | BTS | CMW500 | 159889 | January 13, 2021 | One year |
| 07 | E-field Probe | SPEAG EX3DV4 | 7307 | May 21, 2021 | One year |
| 08 | DAE | SPEAG DAE4 | 536 | November 6, 2020 | One year |
| 09 | Dipole Validation Kit | SPEAG D750V3 | 1017 | July 24,,2020 | One year |
| 10 | Dipole Validation Kit | SPEAG D835V2 | 4d069 | July 24,,2020 | One year |
| 11 | Dipole Validation Kit | SPEAG D1900V2 | 5d101 | July 28,2020 | One year |
| 12 | Dipole Validation Kit | SPEAG D2450V2 | 853 | July 21,2020 | One year |
| 13 | Dipole Validation Kit | SPEAG D2600V2 | 1012 | July 21,2020 | One year |
| 14 | Dipole Validation Kit | SPEAG D5GHzV2 | 1060 | July 27,2020 | One year |

***END OF REPORT BODY***

# ANNEX A Graph Results

**GSM850_CH190 Left Cheek**
Date: 6/18/2021
Electronics: DAE4 Sn536
Medium: head 835 MHz
Medium parameters used: f = 836.6 MHz; $\sigma$ = 0.89 mho/m; $\varepsilon r$ = 40.69; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.5ºC, Liquid Temperature: 22.3ºC
Communication System: GSM850 836.6 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(10.13,10.13,10.13)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.166 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.819 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.182 W/kg
**SAR(1 g) = 0.138 W/kg; SAR(10 g) = 0.107 W/kg**
Maximum value of SAR (measured) = 0.166 W/kg

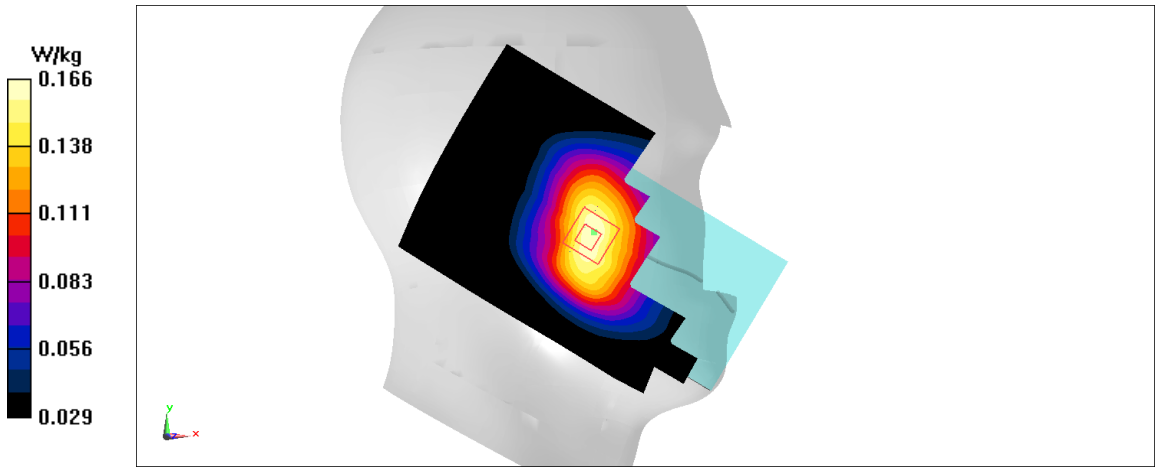



**Fig A.1**

**GSM850_CH190 Rear 10mm**
Date: 6/18/2021
Electronics: DAE4 Sn536
Medium: head 835 MHz
Medium parameters used: f = 836.6 MHz; $\sigma$ = 0.89 mho/m; $\varepsilon r$ = 40.69; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.5ºC,  Liquid Temperature: 22.3ºC
Communication System: GSM850 836.6 MHz Duty Cycle: 1:2
Probe: EX3DV4 – SN7307 ConvF(10.13,10.13,10.13)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.892 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 16.56 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 1.18 W/kg
**SAR(1 g) = 0.649 W/kg; SAR(10 g) = 0.379 W/kg**
Maximum value of SAR (measured) = 0.967 W/kg

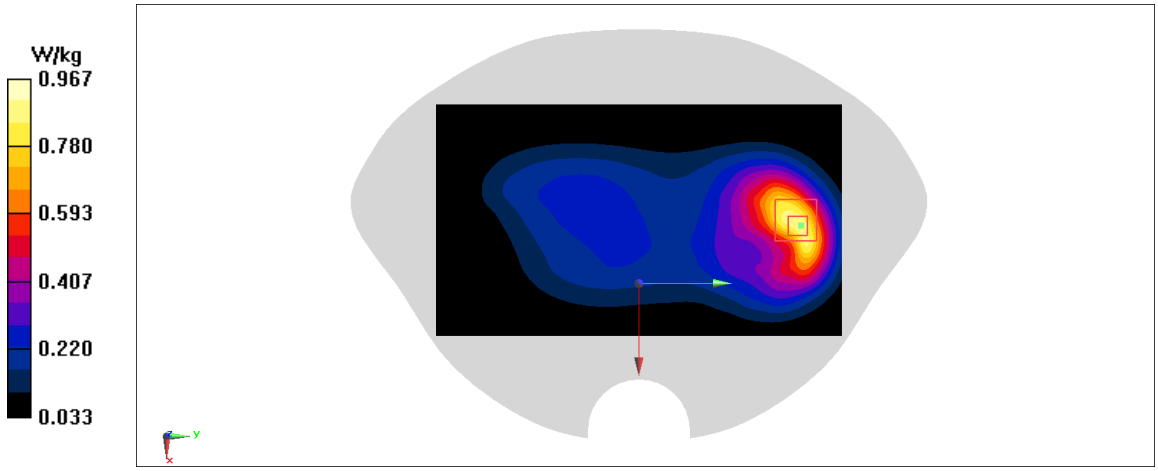



**Fig A.2**

**PCS1900_CH512 Left Cheek**
Date: 6/20/2021
Electronics: DAE4 Sn536
Medium: head 1900 MHz
Medium parameters used: f = 1850.2 MHz; $\sigma$ = 1.364 mho/m; $\varepsilon r$ = 39.44; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C
Communication System: PCS1900 1850.2 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(8.32,8.32,8.32)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.179 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.647 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.197 W/kg
**SAR(1 g) = 0.125 W/kg; SAR(10 g) = 0.079 W/kg**
Maximum value of SAR (measured) = 0.17 W/kg

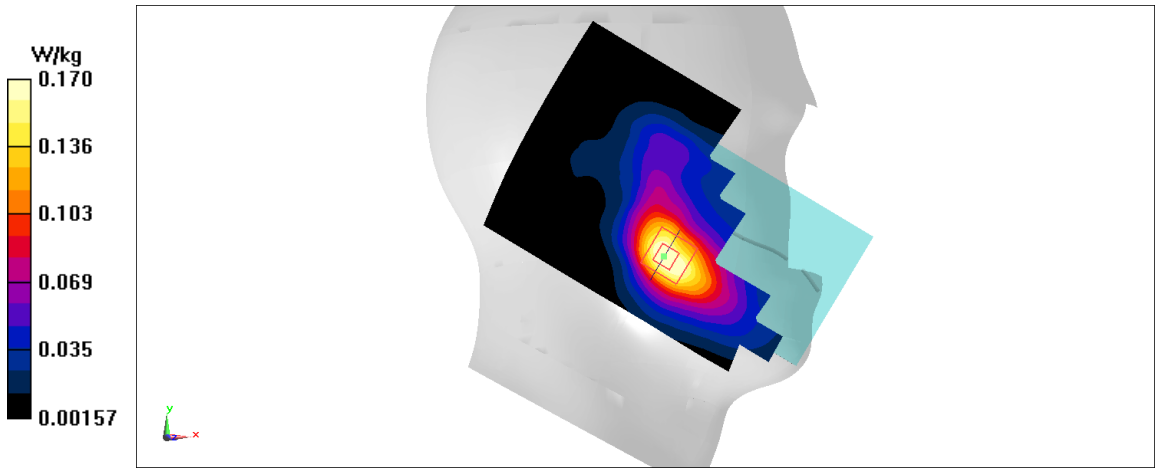



**Fig A.3**

**PCS1900_CH810 Rear 10mm**
Date: 6/20/2021
Electronics: DAE4 Sn536
Medium: head 1900 MHz
Medium parameters used: f = 1909.8 MHz; $\sigma$ = 1.42 mho/m; $\varepsilon r$ = 39.37; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.5ºC,  Liquid Temperature: 22.3ºC
Communication System: PCS1900 1909.8 MHz Duty Cycle: 1:2
Probe: EX3DV4 – SN7307 ConvF(8.32,8.32,8.32)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.36 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 14.77 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 1.51 W/kg
**SAR(1 g) = 0.783 W/kg; SAR(10 g) = 0.44 W/kg**
Maximum value of SAR (measured) = 1.22 W/kg

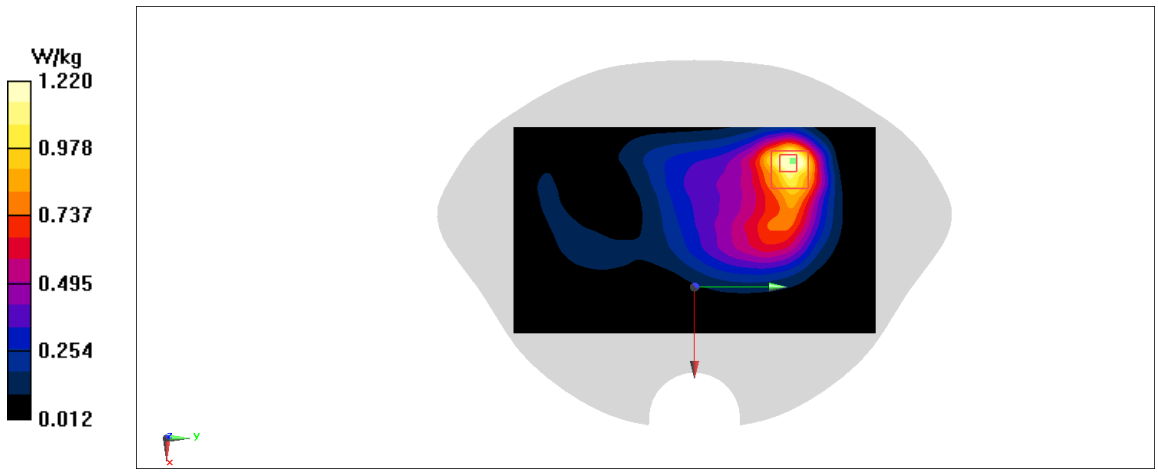



**Fig A.4**

**WCDMA1900-BII_CH9538 Left Cheek**
Date: 6/20/2021
Electronics: DAE4 Sn536
Medium: head 1900 MHz
Medium parameters used: f = 1907.6 MHz; $\sigma$ = 1.419 mho/m; $\varepsilon r$ = 39.37; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C
Communication System: WCDMA1900-BII 1907.6 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(8.32,8.32,8.32)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.55 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.75 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 0.598 W/kg
**SAR(1 g) = 0.378 W/kg; SAR(10 g) = 0.234 W/kg**
Maximum value of SAR (measured) = 0.511 W/kg

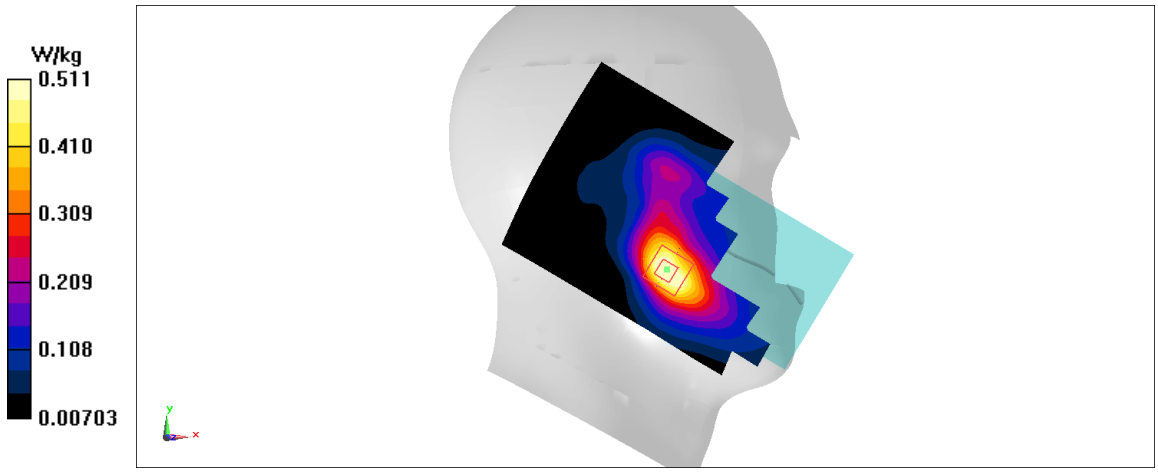



**Fig A.5**

**WCDMA1900-BII_CH9538 Rear 15mm**
Date: 6/20/2021
Electronics: DAE4 Sn536
Medium: head 1900 MHz
Medium parameters used: f = 1907.6 MHz; $\sigma$ = 1.419 mho/m; $\varepsilon r$ = 39.37; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C
Communication System: WCDMA1900-BII 1907.6 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(8.32,8.32,8.32)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.789 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 13.92 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 0.922 W/kg
**SAR(1 g) = 0.527 W/kg; SAR(10 g) = 0.307 W/kg**
Maximum value of SAR (measured) = 0.77 W/kg

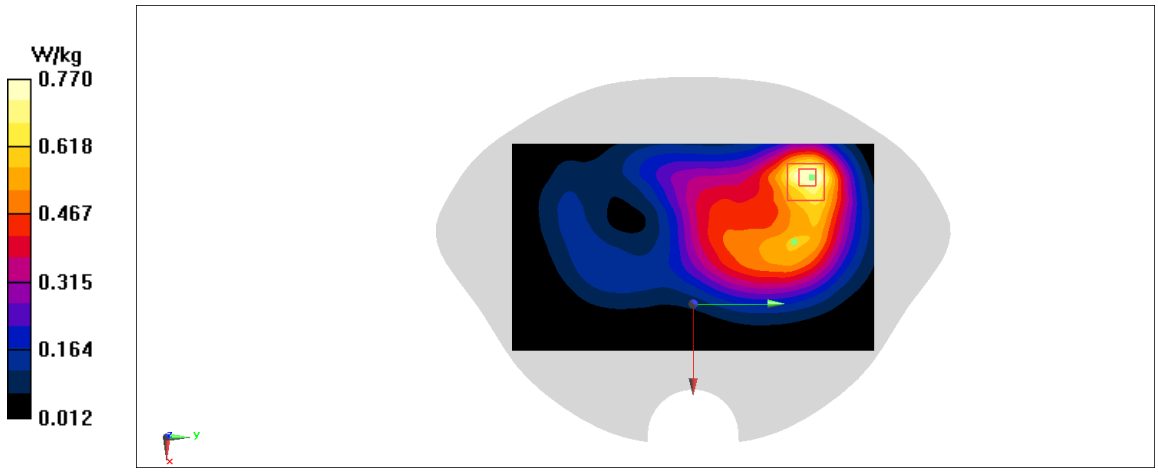



**Fig A.6**

**WCDMA1900-BII_CH9538 Rear 10mm**
Date: 6/20/2021
Electronics: DAE4 Sn536
Medium: head 1900 MHz
Medium parameters used: f = 1907.6 MHz; $\sigma$ = 1.419 mho/m; $\varepsilon r$ = 39.37; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C
Communication System: WCDMA1900-BII 1907.6 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(8.32,8.32,8.32)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.34 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.16 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 1.54 W/kg
**SAR(1 g) = 0.81 W/kg; SAR(10 g) = 0.461 W/kg**
Maximum value of SAR (measured) = 1.25 W/kg

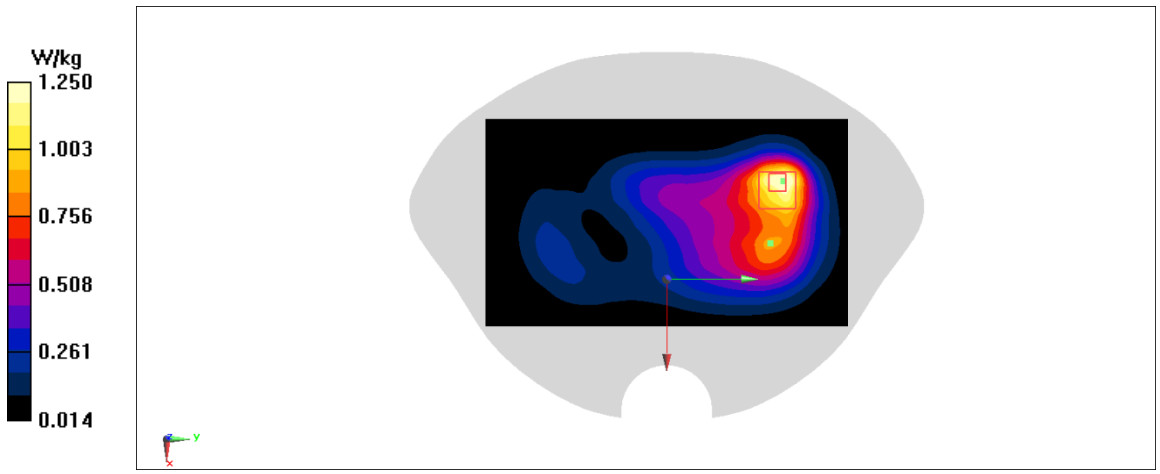



**Fig A.7**

**WCDMA1700-BIV_CH1513 Left Cheek**
Date: 6/19/2021
Electronics: DAE4 Sn536
Medium: head 1750 MHz
Medium parameters used: f = 1752.6 MHz; $\sigma$ = 1.357 mho/m; $\varepsilon r$ = 40.2; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.5ºC,  Liquid Temperature: 22.3ºC
Communication System: WCDMA1700-BIV 1752.6 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(8.61,8.61,8.61)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.426 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.056 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 0.47 W/kg
**SAR(1 g) = 0.304 W/kg; SAR(10 g) = 0.195 W/kg**
Maximum value of SAR (measured) = 0.405 W/kg

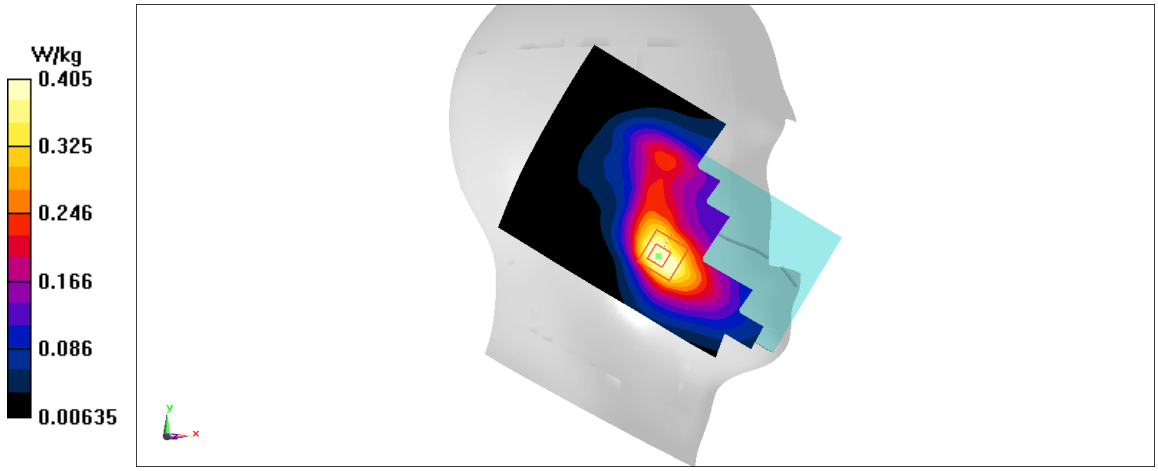



**Fig A.8**

**WCDMA1700-BIV_CH1513 Rear 15mm**
Date: 6/19/2021
Electronics: DAE4 Sn536
Medium: head 1750 MHz
Medium parameters used: f = 1752.6 MHz; $\sigma$ = 1.357 mho/m; $\varepsilon r$ = 40.2; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.5ºC,  Liquid Temperature: 22.3ºC
Communication System: WCDMA1700-BIV 1752.6 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(8.61,8.61,8.61)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.706 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.95 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 0.816 W/kg
**SAR(1 g) = 0.525 W/kg; SAR(10 g) = 0.341 W/kg**
Maximum value of SAR (measured) = 0.709 W/kg

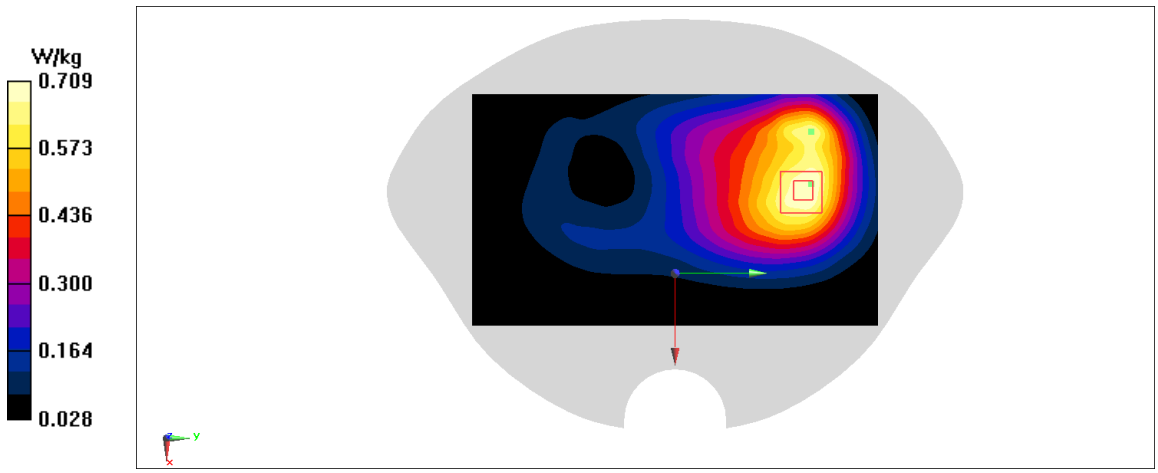



**Fig A.9**

**WCDMA1700-BIV_CH1513 Rear 10mm**
Date: 6/19/2021
Electronics: DAE4 Sn536
Medium: head 1750 MHz
Medium parameters used: f = 1752.6 MHz; $\sigma$ = 1.357 mho/m; $\varepsilon r$ = 40.2; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.5ºC,  Liquid Temperature: 22.3ºC
Communication System: WCDMA1700-BIV 1752.6 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(8.61,8.61,8.61)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.977 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.41 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 1.07 W/kg
**SAR(1 g) = 0.632 W/kg; SAR(10 g) = 0.412 W/kg**
Maximum value of SAR (measured) = 0.877 W/kg

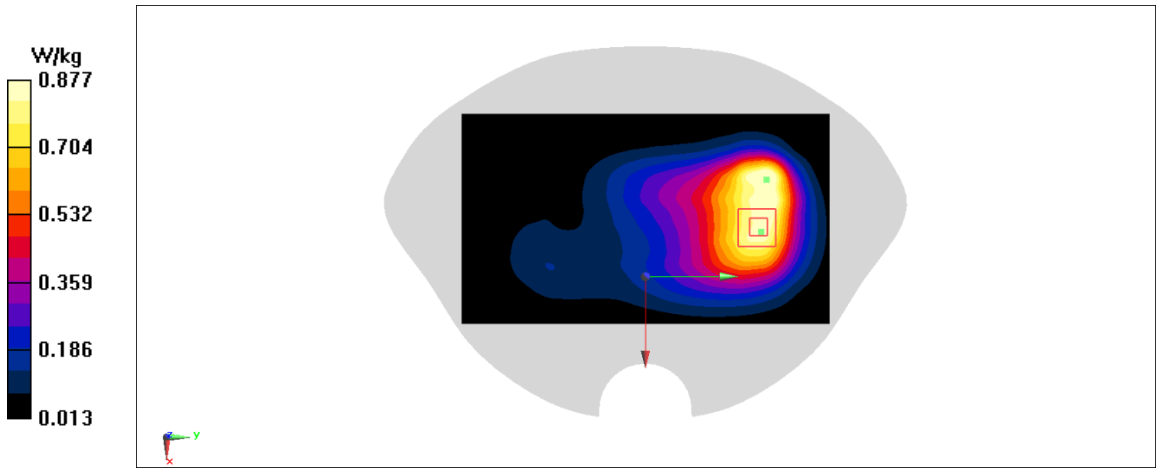



**Fig A.10**

**WCDMA850-BV_CH4132 Right Cheek**
Date: 6/18/2021
Electronics: DAE4 Sn536
Medium: head 835 MHz
Medium parameters used: f = 826.4 MHz; $\sigma$ = 0.879 mho/m; $\varepsilon r$ = 40.7; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.5ºC,  Liquid Temperature: 22.3ºC
Communication System: WCDMA850-BV 826.4 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(10.13,10.13,10.13)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.272 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.392 V/m; Power Drift = -0.19 dB
Peak SAR (extrapolated) = 0.287 W/kg
**SAR(1 g) = 0.221 W/kg; SAR(10 g) = 0.172 W/kg**
Maximum value of SAR (measured) = 0.264 W/kg

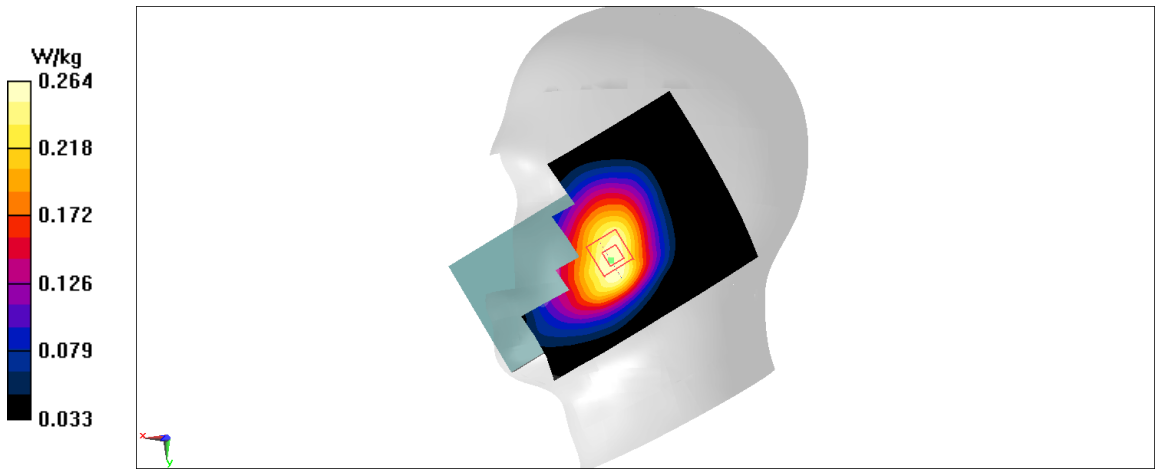



**Fig A.11**

**WCDMA850-BV_CH4132 Rear 10mm**
Date: 6/18/2021
Electronics: DAE4 Sn536
Medium: head 835 MHz
Medium parameters used: f = 826.4 MHz; $\sigma$ = 0.879 mho/m; $\varepsilon r$ = 40.7; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.5ºC,  Liquid Temperature: 22.3ºC
Communication System: WCDMA850-BV 826.4 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(10.13,10.13,10.13)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.601 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.94 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.774 W/kg
**SAR(1 g) = 0.418 W/kg; SAR(10 g) = 0.243 W/kg**
Maximum value of SAR (measured) = 0.623 W/kg

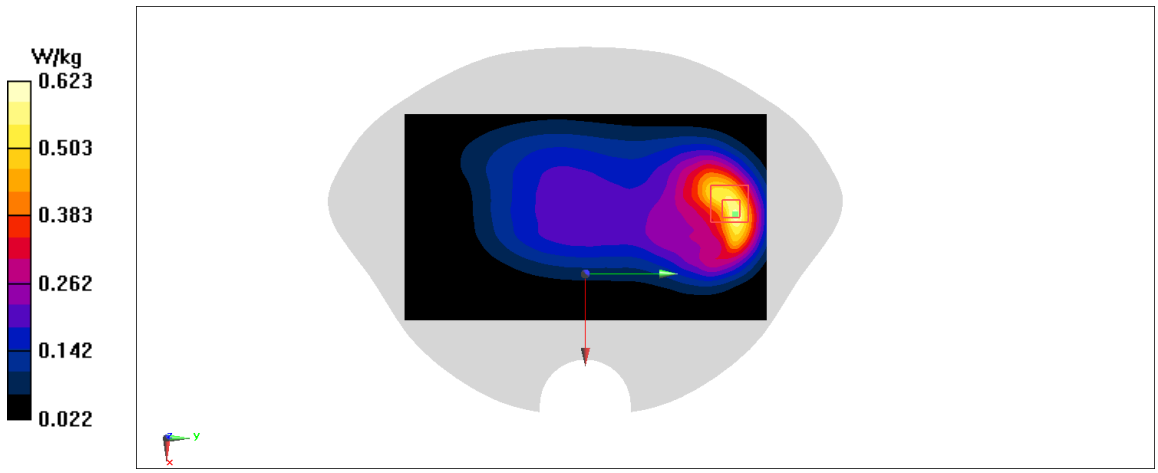



**Fig A.12**

**LTE1900-FDD2_CH18700 Left Cheek**
Date: 6/20/2021
Electronics: DAE4 Sn536
Medium: head 1900 MHz
Medium parameters used: f = 1860 MHz; $\sigma$ = 1.373 mho/m; $\varepsilon r$ = 39.43; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.5ºC,  Liquid Temperature: 22.3ºC
Communication System: LTE1900-FDD2 1860 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(8.32,8.32,8.32)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.606 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.074 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.691 W/kg
**SAR(1 g) = 0.422 W/kg; SAR(10 g) = 0.26 W/kg**
Maximum value of SAR (measured) = 0.588 W/kg

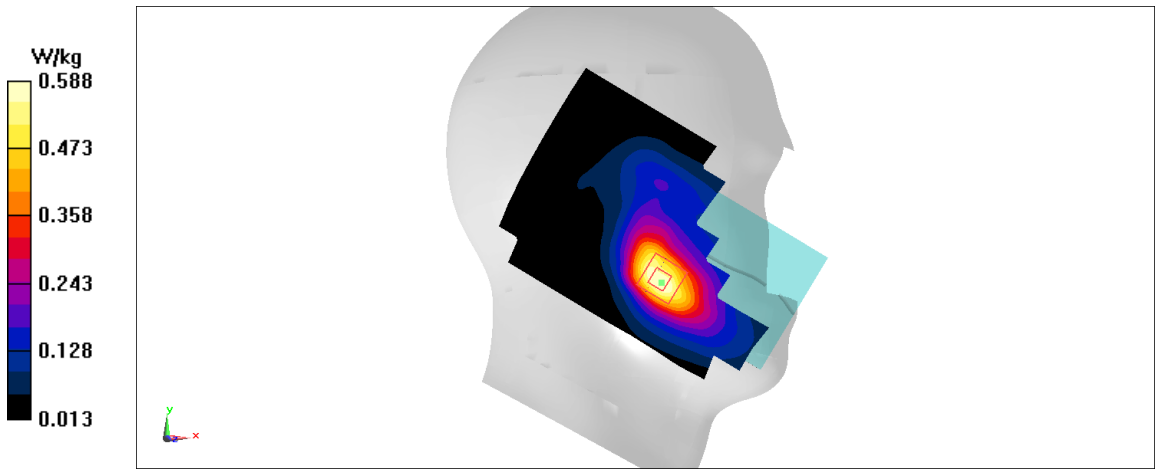



**Fig A.13**

**LTE1900-FDD2_CH18700 Front 15mm**
Date: 6/20/2021
Electronics: DAE4 Sn536
Medium: head 1900 MHz
Medium parameters used: f = 1860 MHz; $\sigma$ = 1.373 mho/m; $\varepsilon r$ = 39.43; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.5ºC,  Liquid Temperature: 22.3ºC
Communication System: LTE1900-FDD2 1860 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(8.32,8.32,8.32)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.513 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.39 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.587 W/kg
**SAR(1 g) = 0.379 W/kg; SAR(10 g) = 0.246 W/kg**
Maximum value of SAR (measured) = 0.511 W/kg

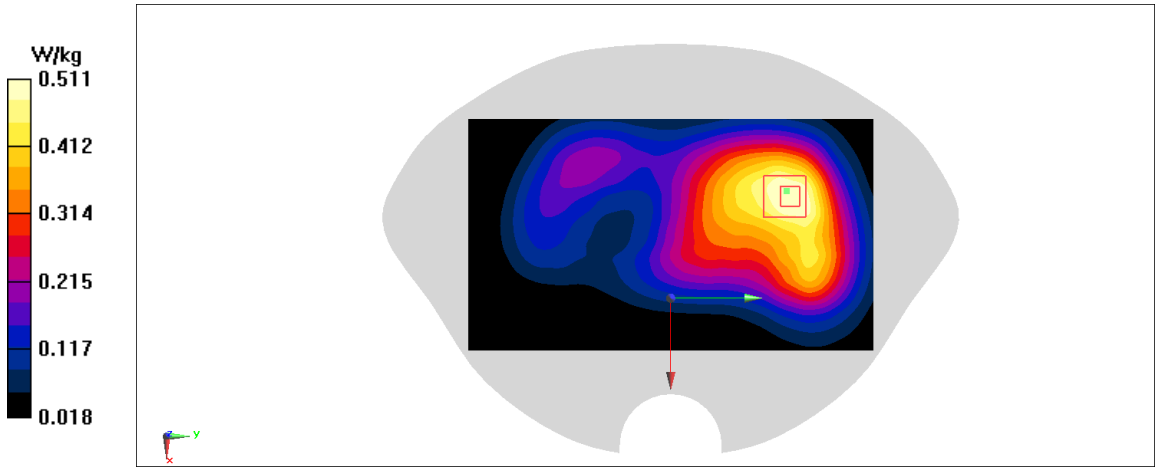



**Fig A.14**

**LTE1900-FDD2_CH18700 Rear 10mm**
Date: 6/20/2021
Electronics: DAE4 Sn536
Medium: head 1900 MHz
Medium parameters used: f = 1860 MHz; $\sigma$ = 1.373 mho/m; $\varepsilon r$ = 39.43; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.5ºC,  Liquid Temperature: 22.3ºC
Communication System: LTE1900-FDD2 1860 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(8.32,8.32,8.32)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.29 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.55 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 1.46 W/kg
**SAR(1 g) = 0.759 W/kg; SAR(10 g) = 0.435 W/kg**
Maximum value of SAR (measured) = 1.18 W/kg

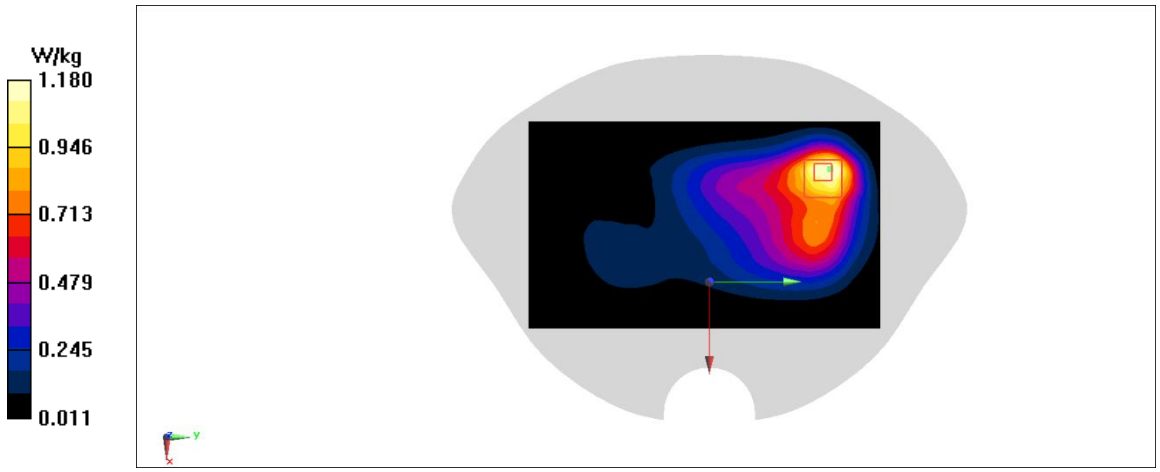



**Fig A.15**

**LTE850-FDD5_CH20450 Right Cheek**
Date: 6/18/2021
Electronics: DAE4 Sn536
Medium: head 835 MHz
Medium parameters used: f = 829 MHz; $\sigma$ = 0.882 mho/m; $\varepsilon r$ = 40.7; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.5ºC,  Liquid Temperature: 22.3ºC
Communication System: LTE850-FDD5 829 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(10.13,10.13,10.13)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.224 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.533 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 0.24 W/kg
**SAR(1 g) = 0.183 W/kg; SAR(10 g) = 0.141 W/kg**
Maximum value of SAR (measured) = 0.22 W/kg

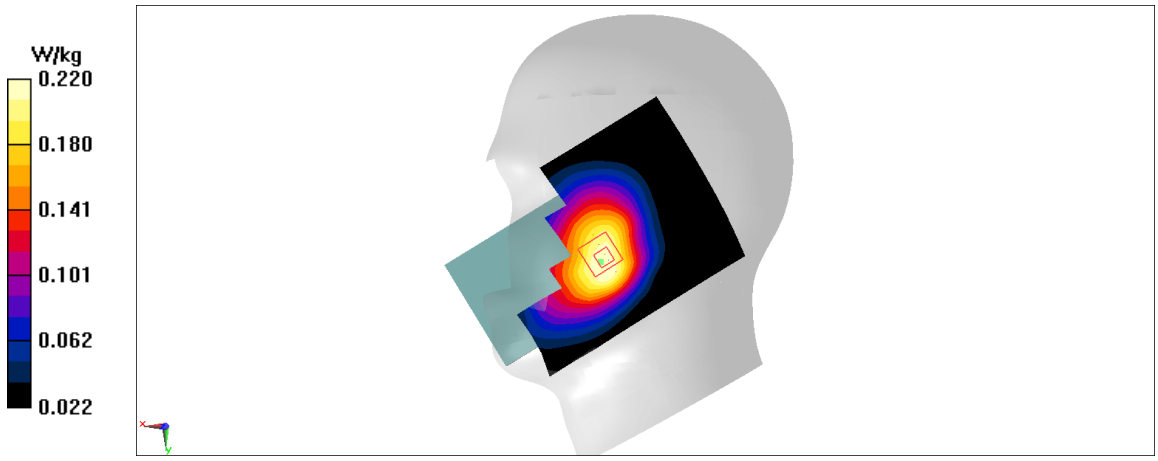



**Fig A.16**

**LTE850-FDD5_CH20450 Bottom 10mm**
Date: 6/18/2021
Electronics: DAE4 Sn536
Medium: head 835 MHz
Medium parameters used: f = 829 MHz; $\sigma$ = 0.882 mho/m; $\varepsilon r$ = 40.7; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.5ºC,  Liquid Temperature: 22.3ºC
Communication System: LTE850-FDD5 829 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(10.13,10.13,10.13)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.499 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 22.42 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 0.637 W/kg
**SAR(1 g) = 0.302 W/kg; SAR(10 g) = 0.158 W/kg**
Maximum value of SAR (measured) = 0.494 W/kg

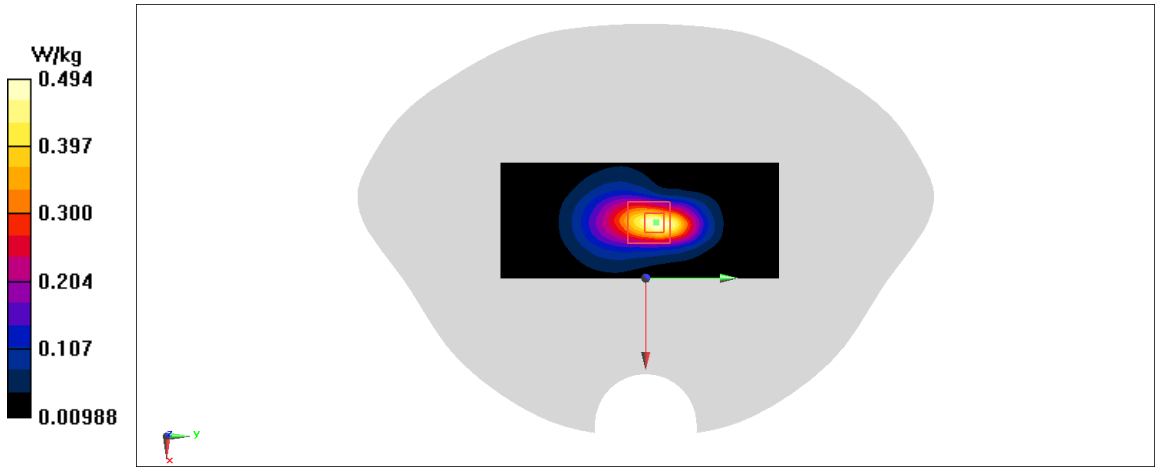



**Fig A.17**

**LTE2500-FDD7 ANT0_CH20850 1RB-Middle**
Date: 6/22/2021
Electronics: DAE4 Sn536
Medium: head 2600 MHz
Medium parameters used: f = 2510 MHz; $\sigma$ = 1.87 mho/m; $\varepsilon r$ = 39.12; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.5ºC,  Liquid Temperature: 22.3ºC
Communication System: LTE2500-FDD7 2510 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(7.5,7.5,7.5)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.252 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.398 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.292 W/kg
**SAR(1 g) = 0.158 W/kg; SAR(10 g) = 0.079 W/kg**
Maximum value of SAR (measured) = 0.238 W/kg

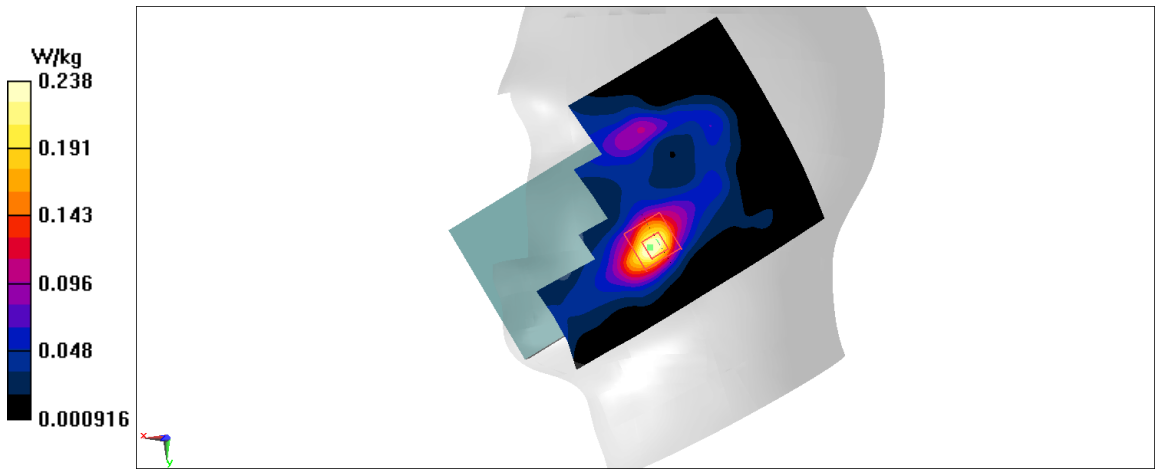



**Fig A.18**

**LTE2500-FDD7 ANT0_CH20850 Rear 15mm**
Date: 6/22/2021
Electronics: DAE4 Sn536
Medium: head 2600 MHz
Medium parameters used: f = 2510 MHz; $\sigma$ = 1.87 mho/m; $\varepsilon r$ = 39.12; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.5ºC,  Liquid Temperature: 22.3ºC
Communication System: LTE2500-FDD7 2510 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(7.5,7.5,7.5)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.673 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.915 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.841 W/kg
**SAR(1 g) = 0.447 W/kg; SAR(10 g) = 0.237 W/kg**
Maximum value of SAR (measured) = 0.689 W/kg

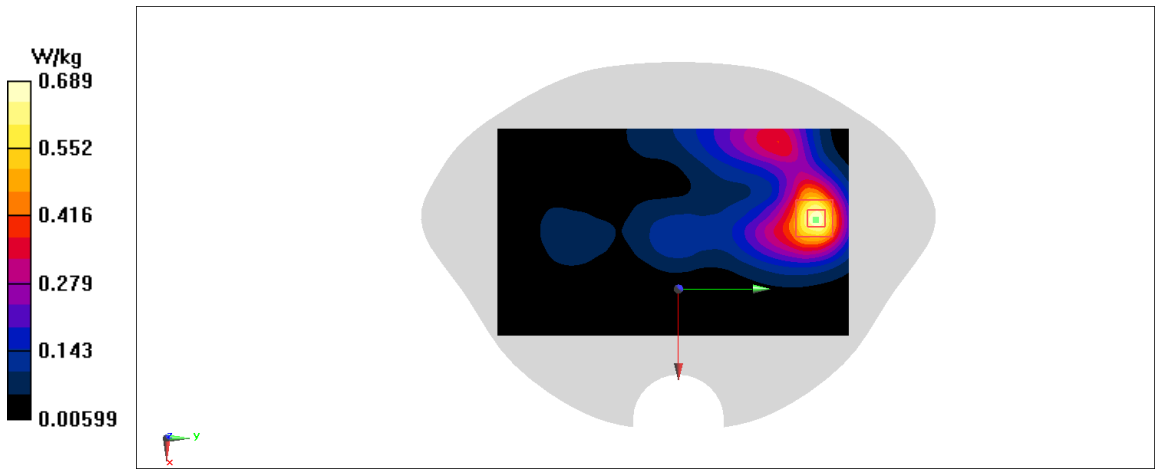



**Fig A.19**

**LTE2500-FDD7 ANT0_CH21100 Bottom 10mm**
Date: 6/22/2021
Electronics: DAE4 Sn536
Medium: head 2600 MHz
Medium parameters used: f = 2535 MHz; $\sigma$ = 1.894 mho/m; $\varepsilon r$ = 39.09; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.5ºC,  Liquid Temperature: 22.3ºC
Communication System: LTE2500-FDD7 2535 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(7.5,7.5,7.5)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.14 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 13.83 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 1.37 W/kg
**SAR(1 g) = 0.664 W/kg; SAR(10 g) = 0.308 W/kg**
Maximum value of SAR (measured) = 1.1 W/kg

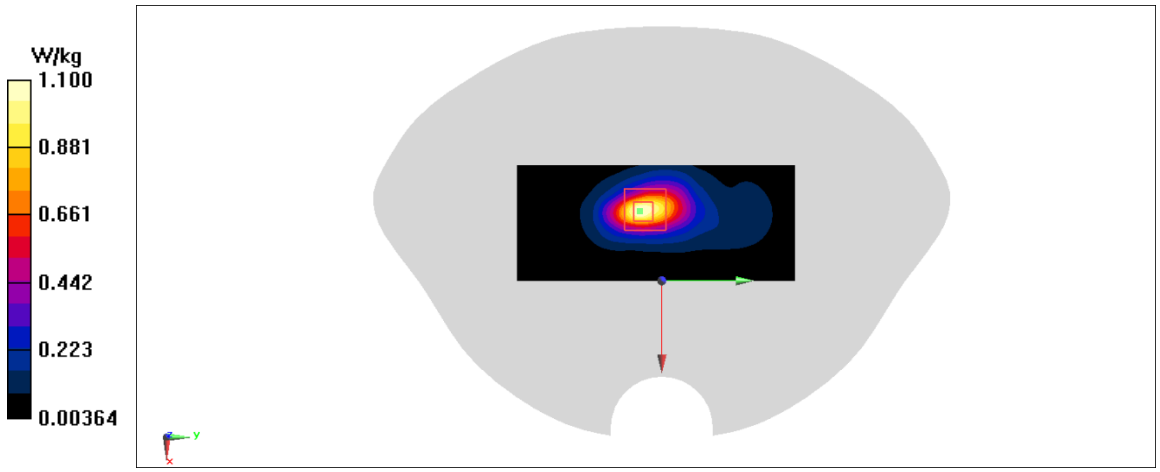



**Fig A.20**

**LTE2500-FDD7 ANT4_CH21350 Right Tilt**
Date: 6/22/2021
Electronics: DAE4 Sn536
Medium: head 2600 MHz
Medium parameters used: f = 2560 MHz; $\sigma$ = 1.918 mho/m; $\varepsilon r$ = 39.06; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.5ºC,  Liquid Temperature: 22.3ºC
Communication System: LTE2500-FDD7 2560 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(7.5,7.5,7.5)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.947 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.12 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 1.15 W/kg
**SAR(1 g) = 0.437 W/kg; SAR(10 g) = 0.179 W/kg**
Maximum value of SAR (measured) = 0.864 W/kg

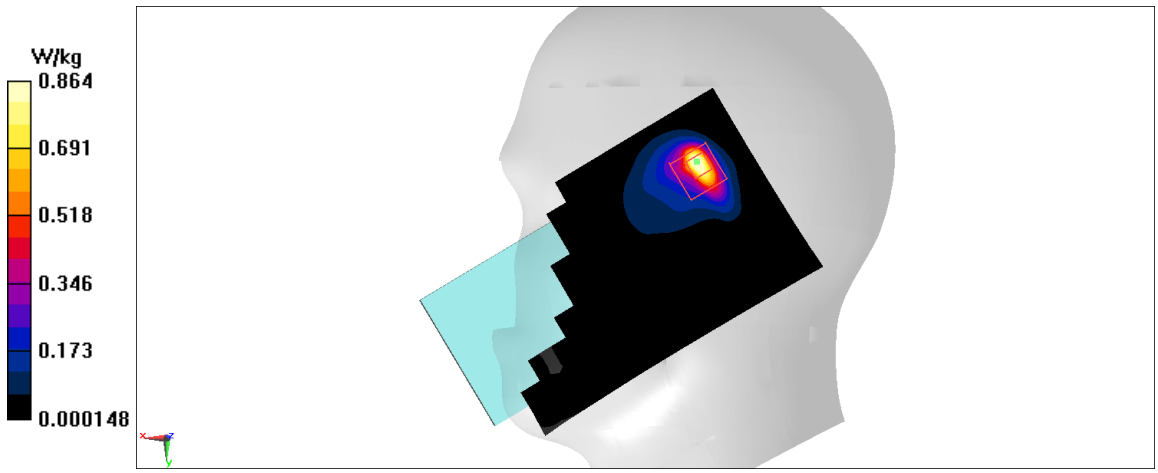



**Fig A.21**

**LTE2500-FDD7 ANT4_CH21350 Front 15mm**
Date: 6/22/2021
Electronics: DAE4 Sn536
Medium: head 2600 MHz
Medium parameters used: f = 2560 MHz; $\sigma$ = 1.918 mho/m; $\varepsilon r$ = 39.06; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.5ºC,  Liquid Temperature: 22.3ºC
Communication System: LTE2500-FDD7 2560 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(7.5,7.5,7.5)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.673 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.915 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.841 W/kg
**SAR(1 g) = 0.235 W/kg; SAR(10 g) = 0.119 W/kg**
Maximum value of SAR (measured) = 0.689 W/kg

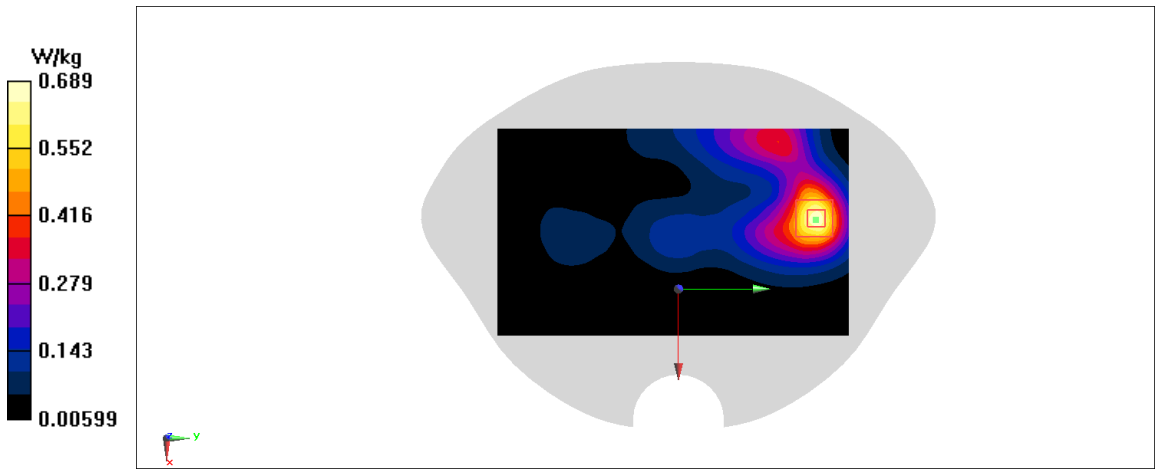



**Fig A.22**

**LTE2500-FDD7 ANT4_CH21350 Top 10mm**
Date: 6/22/2021
Electronics: DAE4 Sn536
Medium: head 2600 MHz
Medium parameters used: f = 2560 MHz; $\sigma$ = 1.918 mho/m; $\varepsilon r$ = 39.06; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.5ºC,  Liquid Temperature: 22.3ºC
Communication System: LTE2500-FDD7 2560 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(7.5,7.5,7.5)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.845 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.11 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 1.08 W/kg
**SAR(1 g) = 0.475 W/kg; SAR(10 g) = 0.195 W/kg**
Maximum value of SAR (measured) = 0.858 W/kg

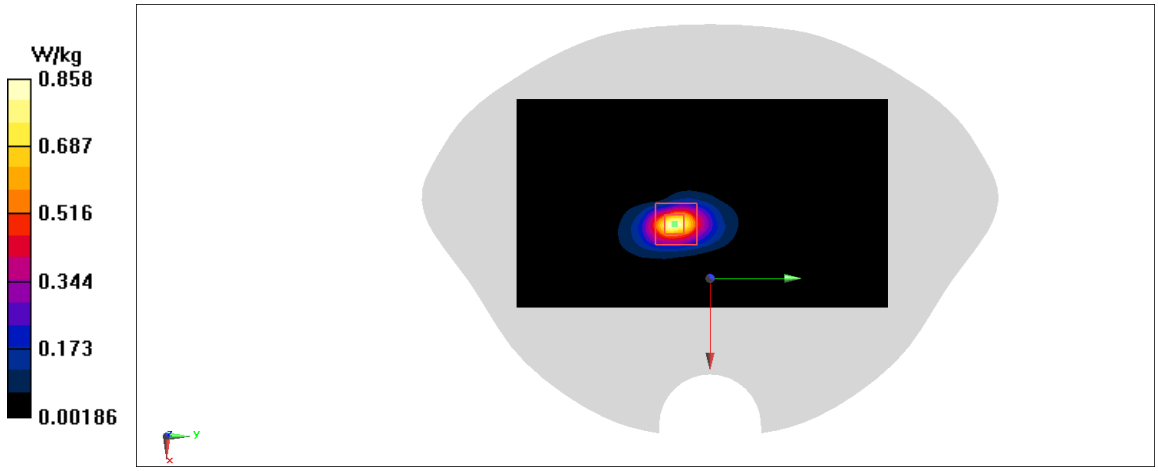



**Fig A.23**

**LTE700-FDD12_CH23060 Right Cheek**
Date: 6/17/2021
Electronics: DAE4 Sn536
Medium: head 750 MHz
Medium parameters used: f = 704 MHz; $\sigma$ = 0.846 mho/m; $\varepsilon r$ = 42.56; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.5ºC,  Liquid Temperature: 22.3ºC
Communication System: LTE700-FDD12 704 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(10.31,10.31,10.31)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.165 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.927 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 0.175 W/kg
**SAR(1 g) = 0.14 W/kg; SAR(10 g) = 0.111 W/kg**
Maximum value of SAR (measured) = 0.163 W/kg

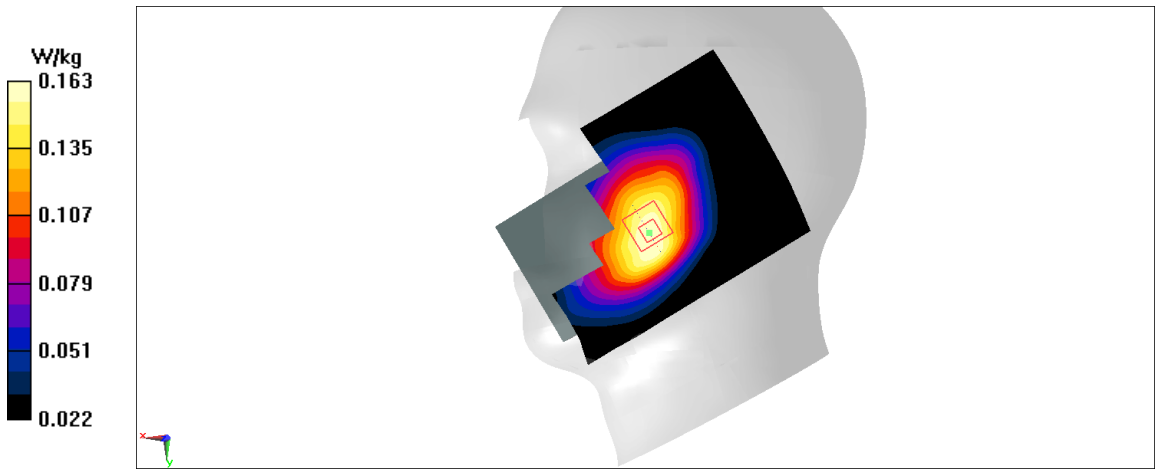



**Fig A.24**

**LTE700-FDD12_CH23060 Right 10mm**
Date: 6/17/2021
Electronics: DAE4 Sn536
Medium: head 750 MHz
Medium parameters used: f = 704 MHz; $\sigma$ = 0.846 mho/m; $\varepsilon r$ = 42.56; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.5ºC,  Liquid Temperature: 22.3ºC
Communication System: LTE700-FDD12 704 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(10.31,10.31,10.31)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.28 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 18.51 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.319 W/kg
**SAR(1 g) = 0.213 W/kg; SAR(10 g) = 0.149 W/kg**
Maximum value of SAR (measured) = 0.279 W/kg

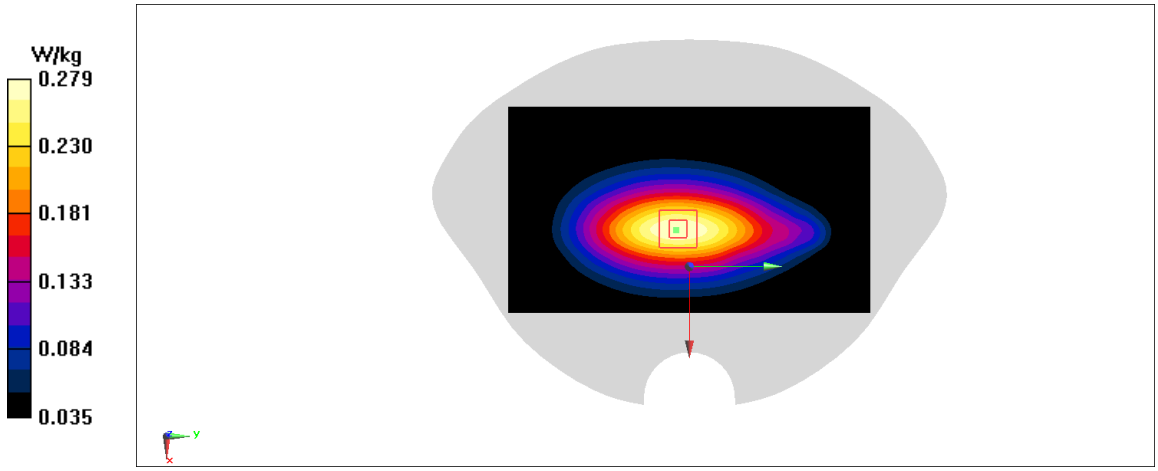



**Fig A.25**

**LTE850-FDD26_CH26775 Right Cheek**
Date: 6/18/2021
Electronics: DAE4 Sn536
Medium: head 835 MHz
Medium parameters used: f = 822.5 MHz; $\sigma$ = 0.876 mho/m; $\varepsilon r$ = 40.71; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.5ºC,  Liquid Temperature: 22.3ºC
Communication System: LTE850-FDD26 822.5 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(10.13,10.13,10.13)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.221 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.545 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.24 W/kg
**SAR(1 g) = 0.184 W/kg; SAR(10 g) = 0.142 W/kg**
Maximum value of SAR (measured) = 0.22 W/kg

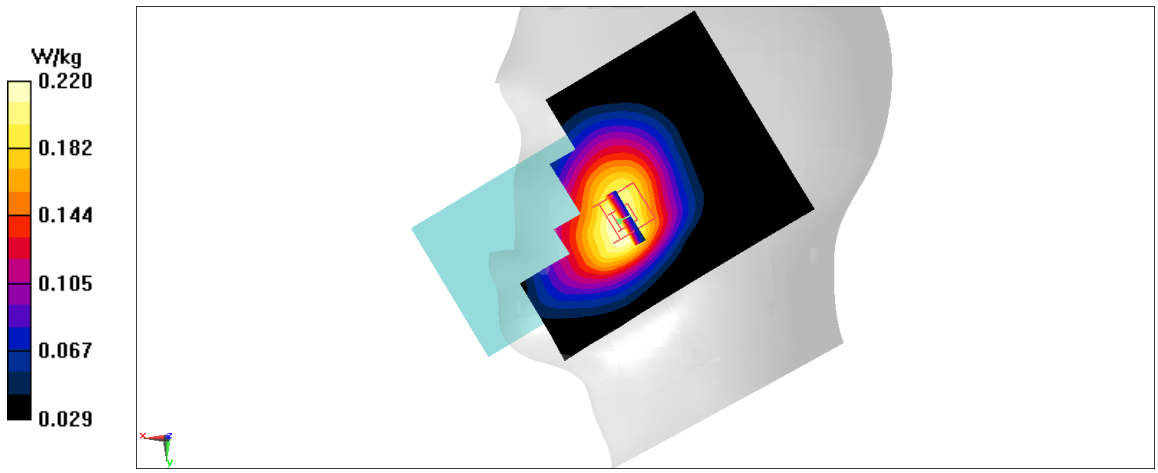



**Fig A.26**

**LTE850-FDD26_CH26775 Rear 10mm**
Date: 6/18/2021
Electronics: DAE4 Sn536
Medium: head 835 MHz
Medium parameters used: f = 822.5 MHz; $\sigma$ = 0.876 mho/m; $\varepsilon r$ = 40.71; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.5ºC,  Liquid Temperature: 22.3ºC
Communication System: LTE850-FDD26 822.5 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(10.13,10.13,10.13)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.489 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 16.85 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 1.45 W/kg
**SAR(1 g) = 0.438 W/kg; SAR(10 g) = 0.227 W/kg**
Maximum value of SAR (measured) = 0.518 W/kg

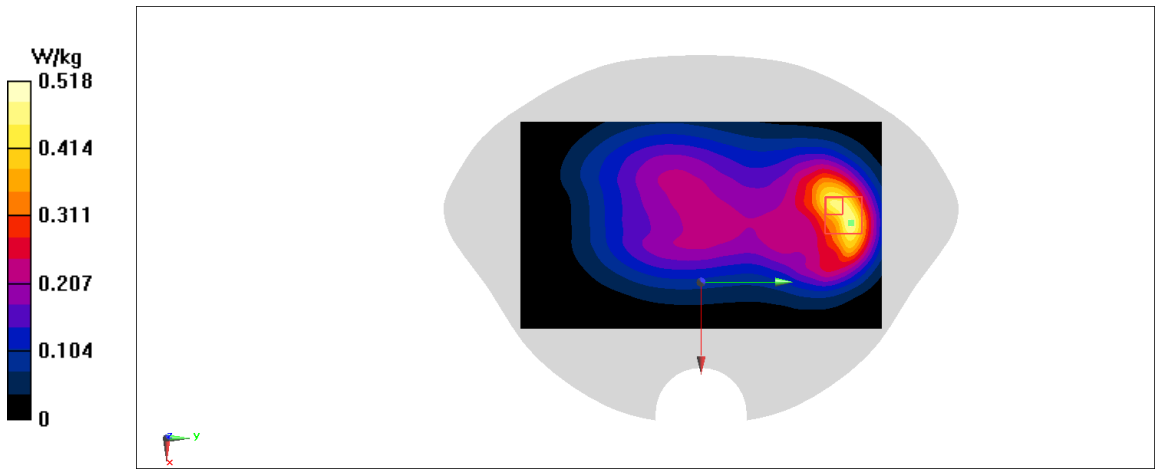



**Fig A.27**

**LTE2500-TDD41_CH41490 Left Cheek**
Date: 6/22/2021
Electronics: DAE4 Sn536
Medium: head 2600 MHz
Medium parameters used: f = 2680 MHz; $\sigma$ = 2.107 mho/m; $\varepsilon r$ = 38.872; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C
Communication System: LTE2500-TDD41 2680 MHz Duty Cycle: 1:1.58
Probe: EX3DV4 – SN7307 ConvF(7.5,7.5,7.5)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.142 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 0.457 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.175 W/kg
**SAR(1 g) = 0.09 W/kg; SAR(10 g) = 0.04 W/kg**
Maximum value of SAR (measured) = 0.139 W/kg

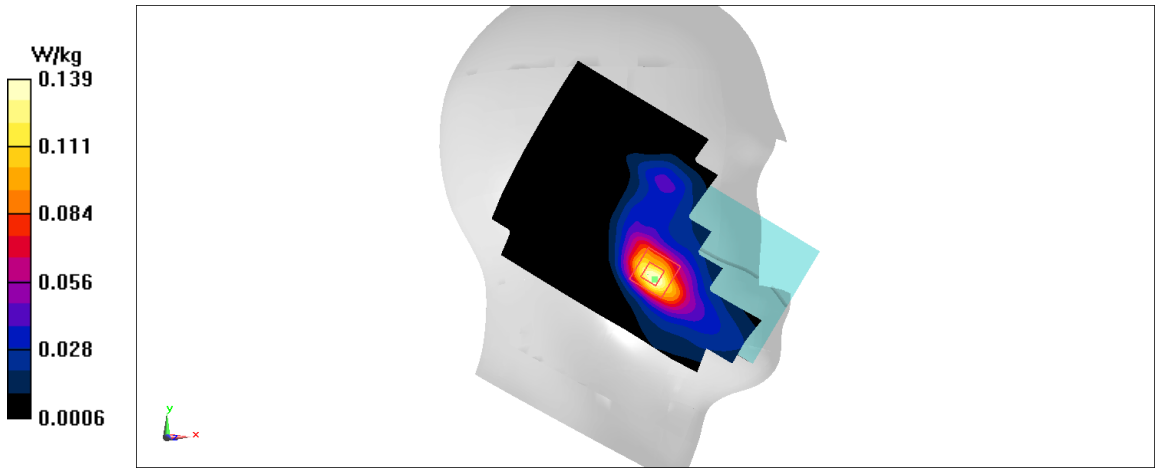



**Fig A.28**

**LTE2500-TDD41_CH41490 Bottom 10mm**
Date: 6/22/2021
Electronics: DAE4 Sn536
Medium: head 2600 MHz
Medium parameters used: f = 2680 MHz; $\sigma$ = 2.107 mho/m; $\varepsilon r$ = 38.872; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C
Communication System: LTE2500-TDD41 2680 MHz Duty Cycle: 1:1.58
Probe: EX3DV4 – SN7307 ConvF(7.5,7.5,7.5)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.511 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 13.47 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 0.612 W/kg
**SAR(1 g) = 0.304 W/kg; SAR(10 g) = 0.147 W/kg**
Maximum value of SAR (measured) = 0.494 W/kg

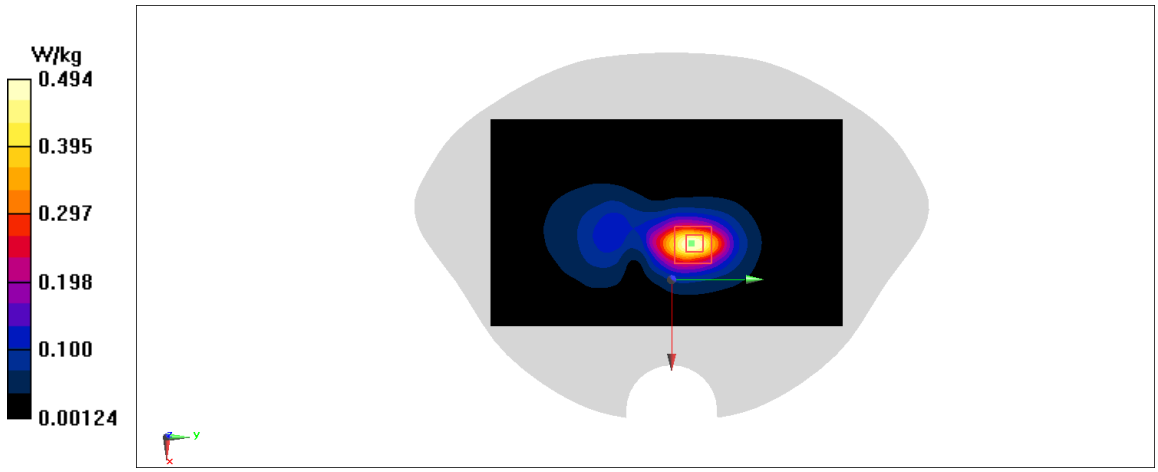



**Fig A.29**

**LTE1700-FDD66 ANT1_CH132322 Left Cheek**
Date: 6/19/2021
Electronics: DAE4 Sn536
Medium: head 1750 MHz
Medium parameters used: f = 1745 MHz; $\sigma$ = 1.425 mho/m; $\varepsilon r$ = 40.721; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C
Communication System: LTE1700-FDD66 1745 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(8.61,8.61,8.61)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.474 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.848 V/m; Power Drift = -0.1 dB
Peak SAR (extrapolated) = 0.524 W/kg
**SAR(1 g) = 0.326 W/kg; SAR(10 g) = 0.206 W/kg**
Maximum value of SAR (measured) = 0.451 W/kg

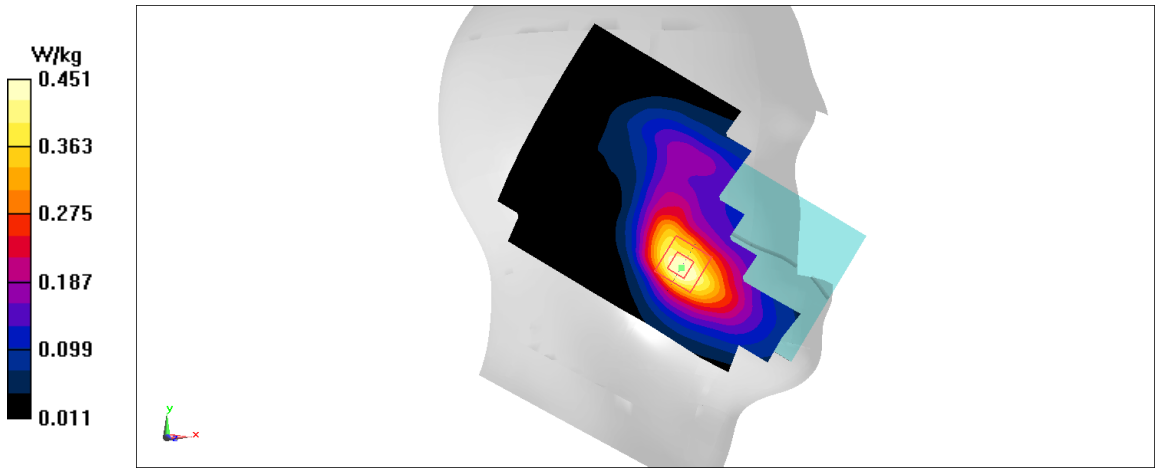



**Fig A.30**

**LTE1700-FDD66 ANT1_CH132322 Rear 15mm**
Date: 6/19/2021
Electronics: DAE4 Sn536
Medium: head 1750 MHz
Medium parameters used: f = 1745 MHz; $\sigma$ = 1.425 mho/m; $\varepsilon r$ = 40.721; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C
Communication System: LTE1700-FDD66 1745 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(8.61,8.61,8.61)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.65 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 13.38 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 1.7 W/kg
**SAR(1 g) = 0.579 W/kg; SAR(10 g) = 0.273 W/kg**
Maximum value of SAR (measured) = 0.641 W/kg

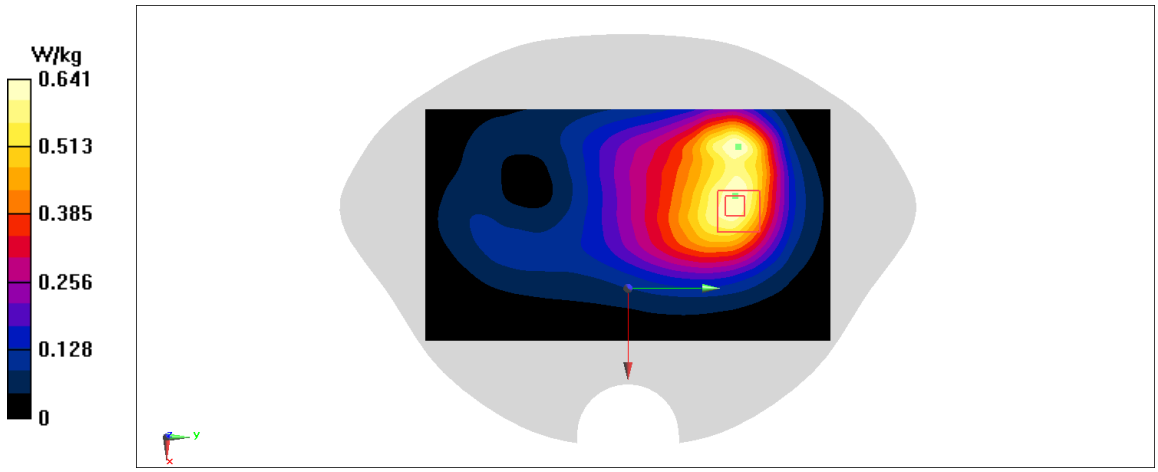



**Fig A.31**

**LTE1700-FDD66 ANT1_CH132572 Bottom 10mm**
Date: 6/19/2021
Electronics: DAE4 Sn536
Medium: head 1750 MHz
Medium parameters used: f = 1770 MHz; $\sigma$ = 1.382 mho/m; $\varepsilon r$ = 42.918; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C
Communication System: LTE1700-FDD66 1770 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(8.61,8.61,8.61)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.821 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 24.05 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 0.953 W/kg
**SAR(1 g) = 0.576 W/kg; SAR(10 g) = 0.343 W/kg**
Maximum value of SAR (measured) = 0.818 W/kg

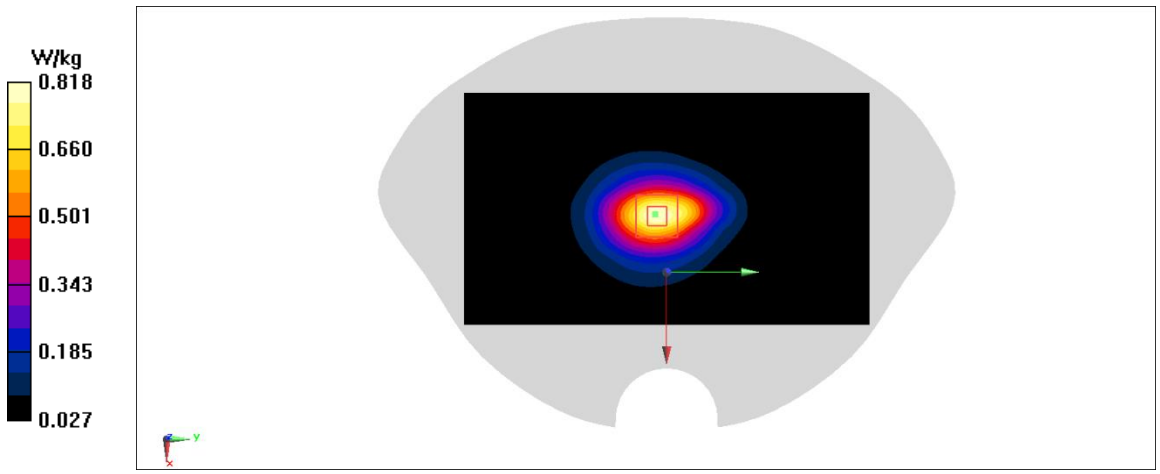



**Fig A.32**

**LTE1700-FDD66 ANT4_CH132072 Right Tilt**
Date: 6/19/2021
Electronics: DAE4 Sn536
Medium: head 1750 MHz
Medium parameters used: f = 1720 MHz; $\sigma$ = 1.344 mho/m; $\varepsilon r$ = 42.97; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.5ºC,  Liquid Temperature: 22.3ºC
Communication System: LTE1700-FDD66 1720 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(8.61,8.61,8.61)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.2 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 25.79 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 1.61 W/kg
**SAR(1 g) = 0.768 W/kg; SAR(10 g) = 0.355 W/kg**
Maximum value of SAR (measured) = 1.31 W/kg

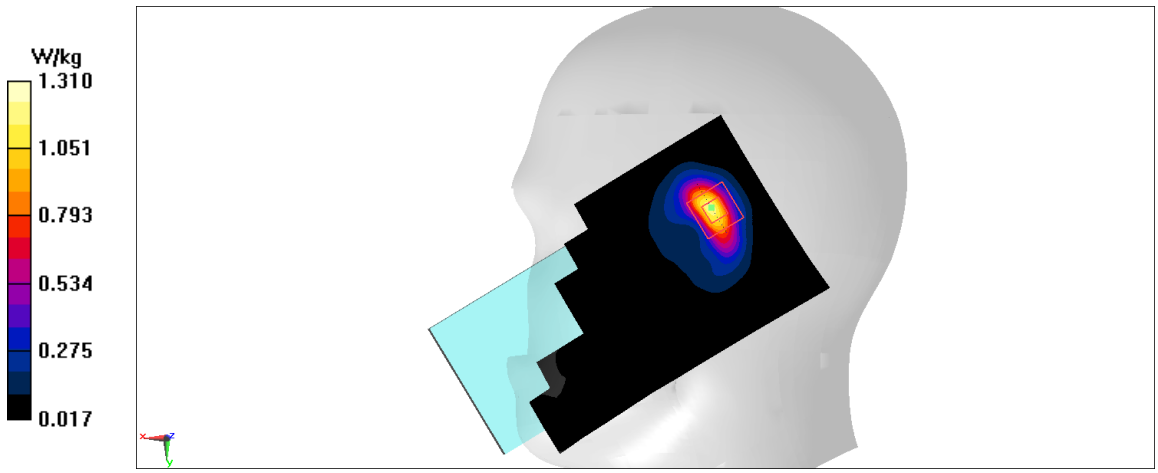



**Fig A.33**

**LTE1700-FDD66 ANT4_CH132072 Rear 15mm**
Date: 6/19/2021
Electronics: DAE4 Sn536
Medium: head 1750 MHz
Medium parameters used: f = 1720 MHz; $\sigma$ = 1.344 mho/m; $\varepsilon r$ = 42.97; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.5ºC,  Liquid Temperature: 22.3ºC
Communication System: LTE1700-FDD66 1720 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(8.61,8.61,8.61)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.697 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.25 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.822 W/kg
**SAR(1 g) = 0.489 W/kg; SAR(10 g) = 0.287 W/kg**
Maximum value of SAR (measured) = 0.706 W/kg

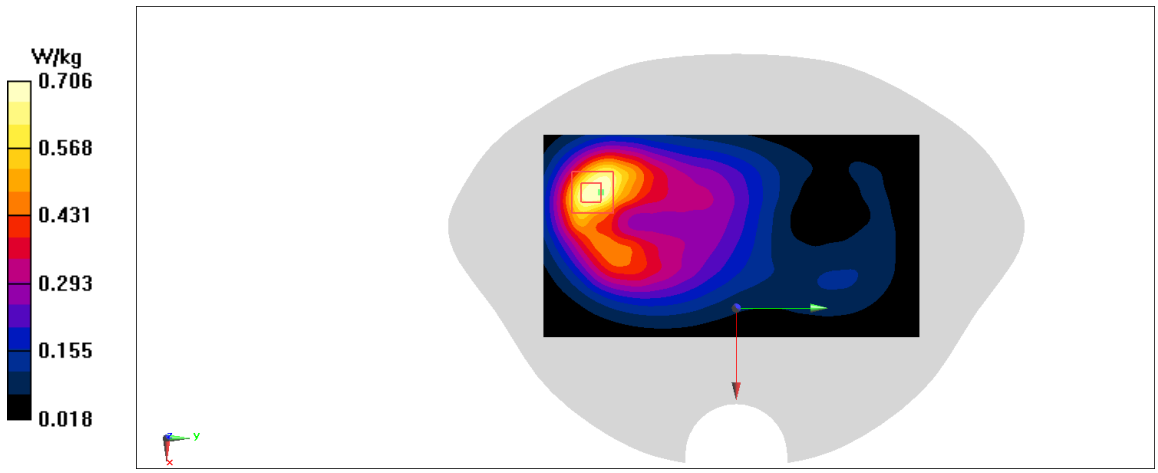



**Fig A.34**

**LTE1700-FDD66 ANT4_CH132072 Top 10mm**
Date: 6/19/2021
Electronics: DAE4 Sn536
Medium: head 1750 MHz
Medium parameters used: f = 1720 MHz; $\sigma$ = 1.344 mho/m; $\varepsilon r$ = 42.97; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.5ºC,  Liquid Temperature: 22.3ºC
Communication System: LTE1700-FDD66 1720 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(8.61,8.61,8.61)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.980 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 24.89 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 1.17 W/kg
**SAR(1 g) = 0.642 W/kg; SAR(10 g) = 0.337 W/kg**
Maximum value of SAR (measured) = 0.984 W/kg

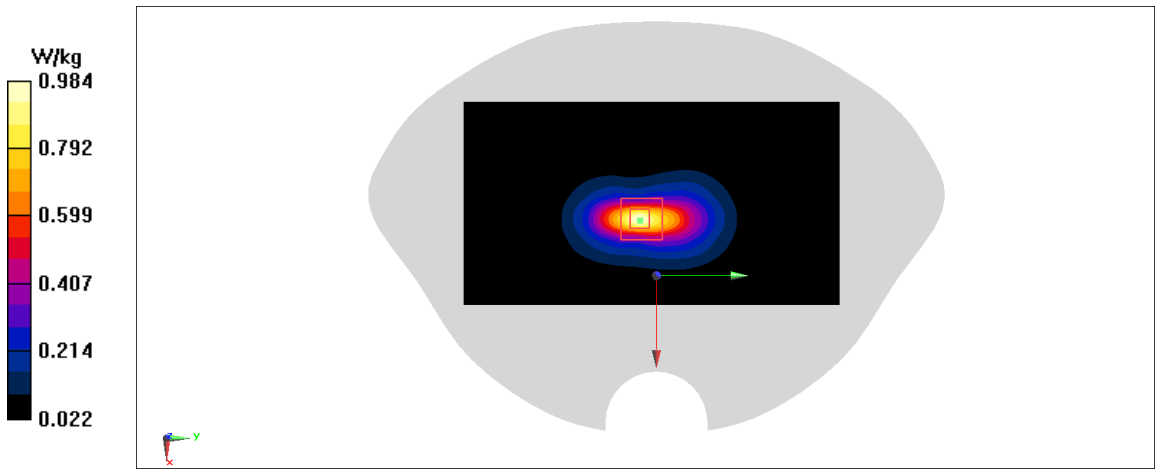



**Fig A.35**

**5G n5_CH167300 Right Cheek**
Date: 6/18/2021
Electronics: DAE4 Sn536
Medium: head 835 MHz
Medium parameters used: f = 836.5 MHz; $\sigma$ = 0.889 mho/m; $\varepsilon r$ = 40.69; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.5ºC,  Liquid Temperature: 22.3ºC
Communication System: 5G n5 836.5 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(10.13,10.13,10.13)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.296 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.803 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 0.319 W/kg
**SAR(1 g) = 0.242 W/kg; SAR(10 g) = 0.186 W/kg**
Maximum value of SAR (measured) = 0.292 W/kg

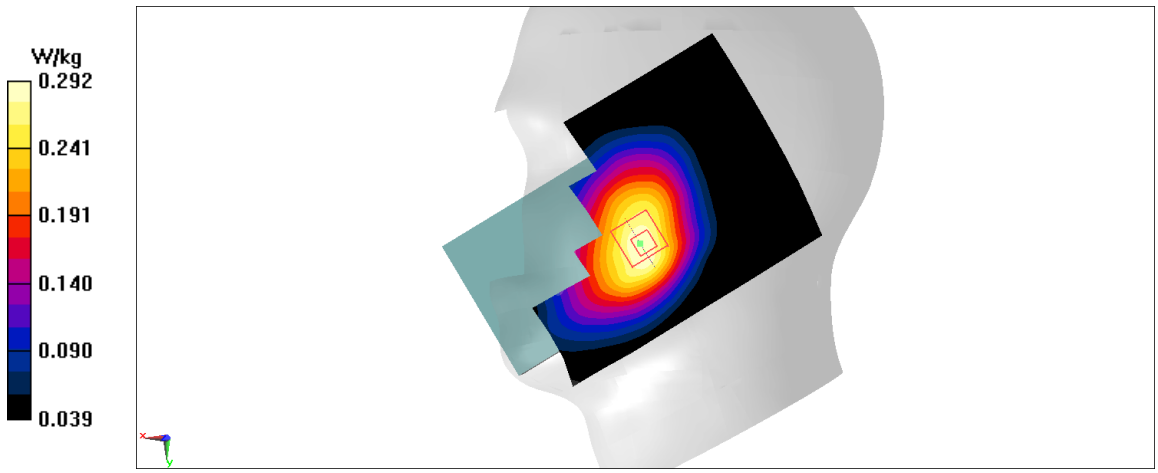



**Fig A.36**

**5G n5_CH167300 Rear 10mm**
Date: 6/18/2021
Electronics: DAE4 Sn536
Medium: head 835 MHz
Medium parameters used: f = 836.5 MHz; $\sigma$ = 0.889 mho/m; $\varepsilon r$ = 40.69; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.5ºC,  Liquid Temperature: 22.3ºC
Communication System: 5G n5 836.5 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(10.13,10.13,10.13)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.596 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 19.18 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 0.726 W/kg
**SAR(1 g) = 0.395 W/kg; SAR(10 g) = 0.231 W/kg**
Maximum value of SAR (measured) = 0.593 W/kg

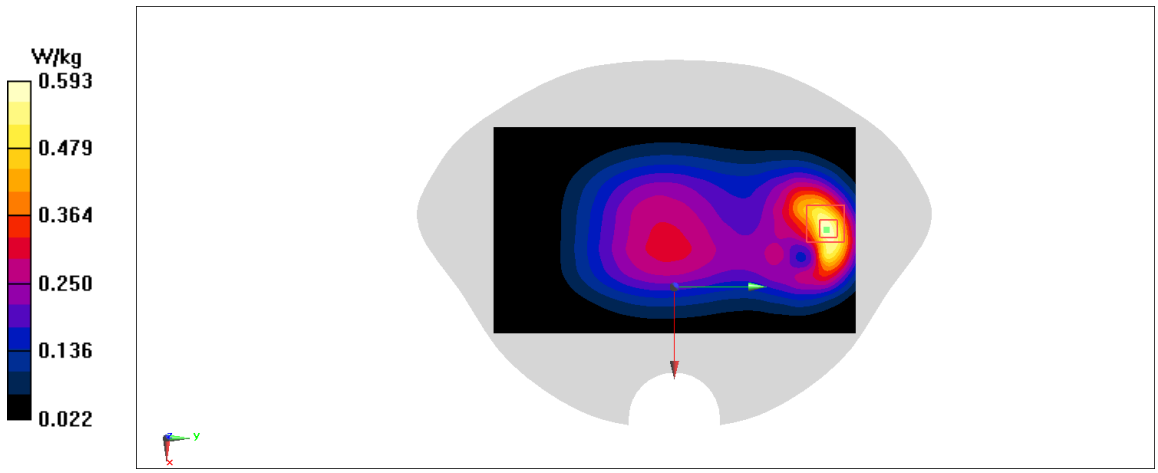



**Fig A.37**

**5G n7_CH513500 Right Tilt**
Date: 6/22/2021
Electronics: DAE4 Sn536
Medium: head 2600 MHz
Medium parameters used: f = 2567.5 MHz; $\sigma$ = 1.926 mho/m; $\varepsilon r$ = 39.05; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C
Communication System: 5G n7 2567.5 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(7.5,7.5,7.5)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.684 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.39 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 0.966 W/kg
**SAR(1 g) = 0.365 W/kg; SAR(10 g) = 0.148 W/kg**
Maximum value of SAR (measured) = 0.733 W/kg

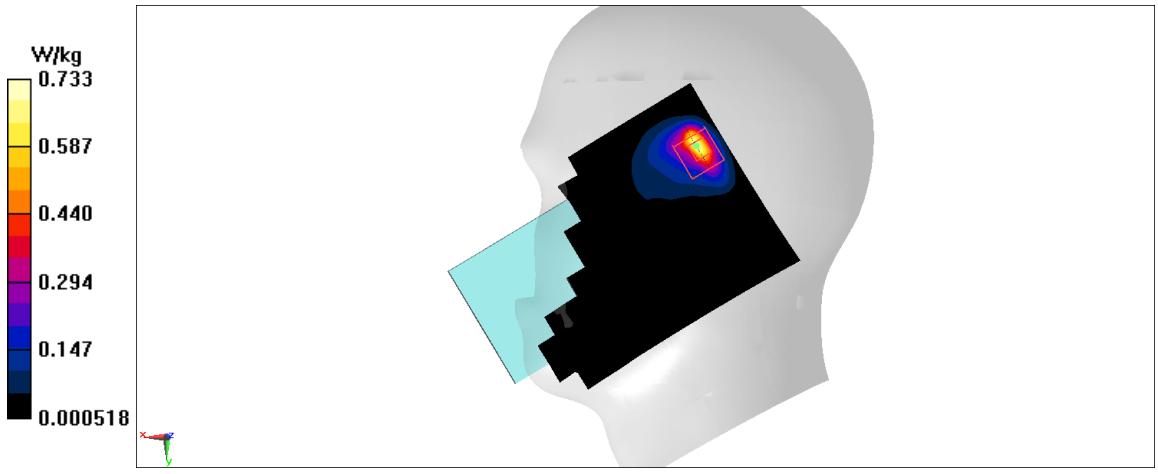



**Fig A.38**

**5G n7_CH513500 Front 15mm**
Date: 6/22/2021
Electronics: DAE4 Sn536
Medium: head 2600 MHz
Medium parameters used: f = 2567.5 MHz; $\sigma$ = 1.926 mho/m; $\varepsilon r$ = 39.05; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C
Communication System: 5G n7 2567.5 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(7.5,7.5,7.5)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.380 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.359 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 0.479 W/kg
**SAR(1 g) = 0.239 W/kg; SAR(10 g) = 0.12 W/kg**
Maximum value of SAR (measured) = 0.386 W/kg

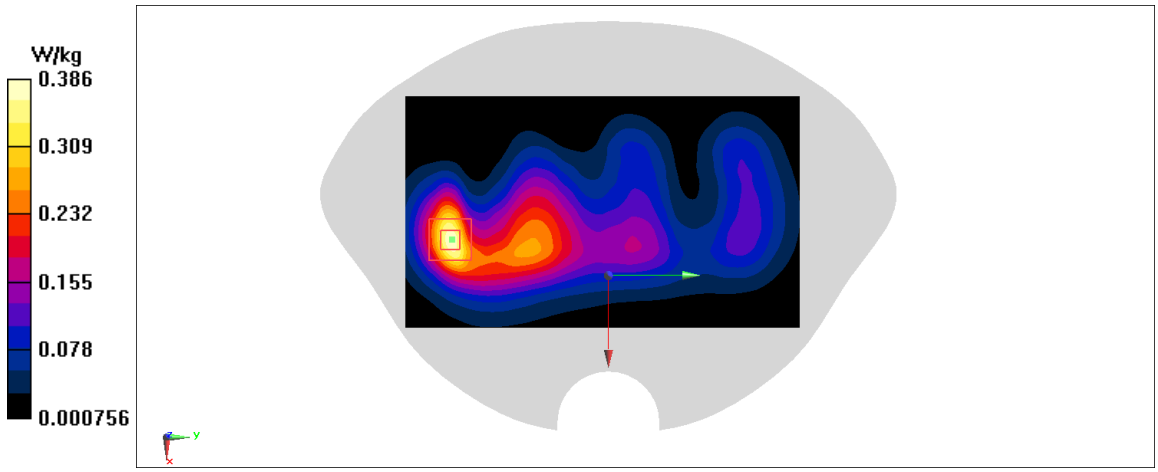



**Fig A.39**

**WLAN2450_CH1 Left Tilt**
Date: 6/21/2021
Electronics: DAE4 Sn536
Medium: head 2450 MHz
Medium parameters used: f = 2412 MHz; $\sigma$ = 1.782 mho/m; $\varepsilon r$ = 39.88; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.5ºC,  Liquid Temperature: 22.3ºC
Communication System: WLAN2450 2412 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(7.75,7.75,7.75)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.546 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.787 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.693 W/kg
**SAR(1 g) = 0.292 W/kg; SAR(10 g) = 0.116 W/kg**
Maximum value of SAR (measured) = 0.538 W/kg

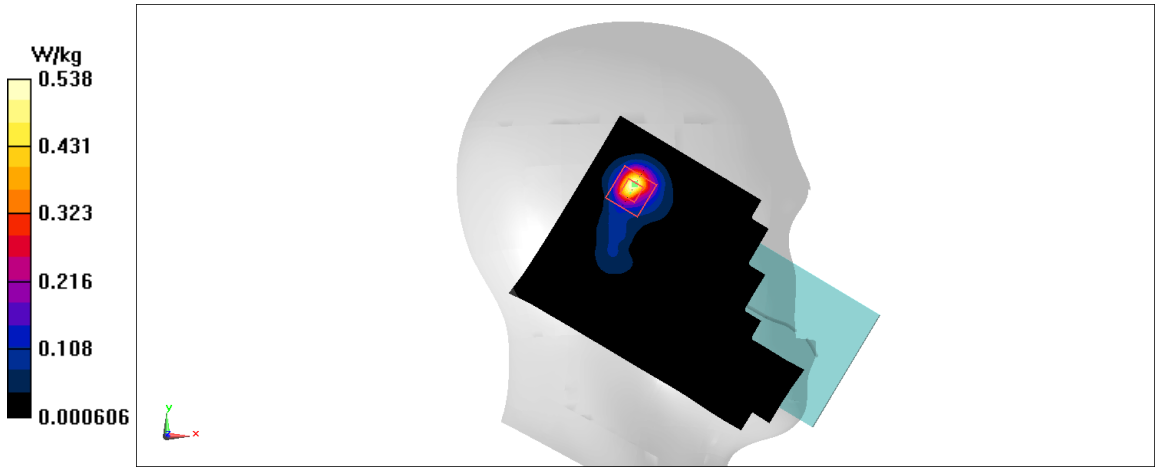



**Fig A.40**

**5G n7_CH513500 Top 10mm**
Date: 6/22/2021
Electronics: DAE4 Sn536
Medium: head 2600 MHz
Medium parameters used: f = 2567.5 MHz; $\sigma$ = 1.926 mho/m; $\varepsilon r$ = 39.05; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C
Communication System: 5G n7 2567.5 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(7.5,7.5,7.5)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.725 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.46 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 0.909 W/kg
**SAR(1 g) = 0.403 W/kg; SAR(10 g) = 0.167 W/kg**
Maximum value of SAR (measured) = 0.708 W/kg

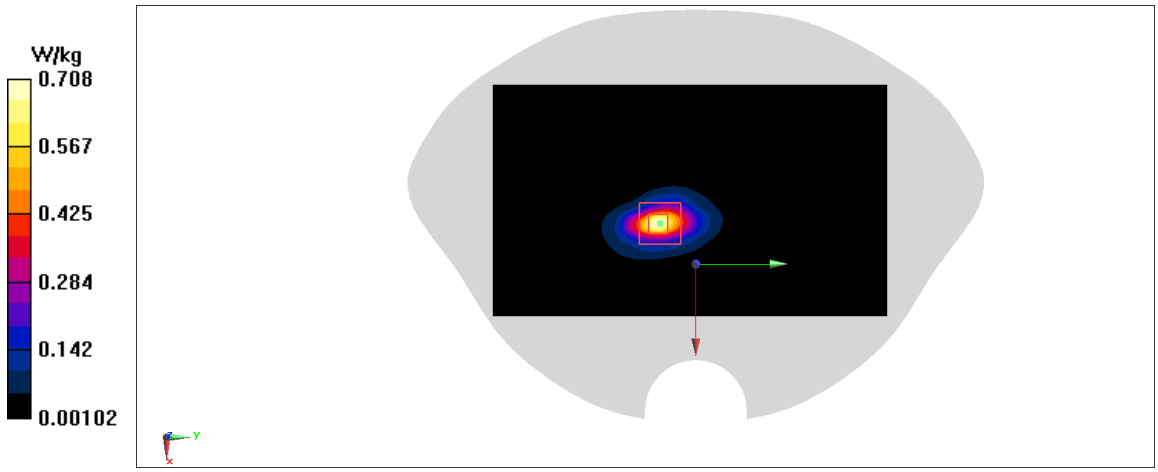



**Fig A.41**

**WLAN2450_CH6 Top 10mm**
Date: 6/21/2021
Electronics: DAE4 Sn536
Medium: head 2450 MHz
Medium parameters used: f = 2437 MHz; $\sigma$ = 1.806 mho/m; $\varepsilon r$ = 39.85; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.5ºC,  Liquid Temperature: 22.3ºC
Communication System: WLAN2450 2437 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(7.75,7.75,7.75)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.585 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.37 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.709 W/kg
**SAR(1 g) = 0.329 W/kg; SAR(10 g) = 0.143 W/kg**
Maximum value of SAR (measured) = 0.563 W/kg

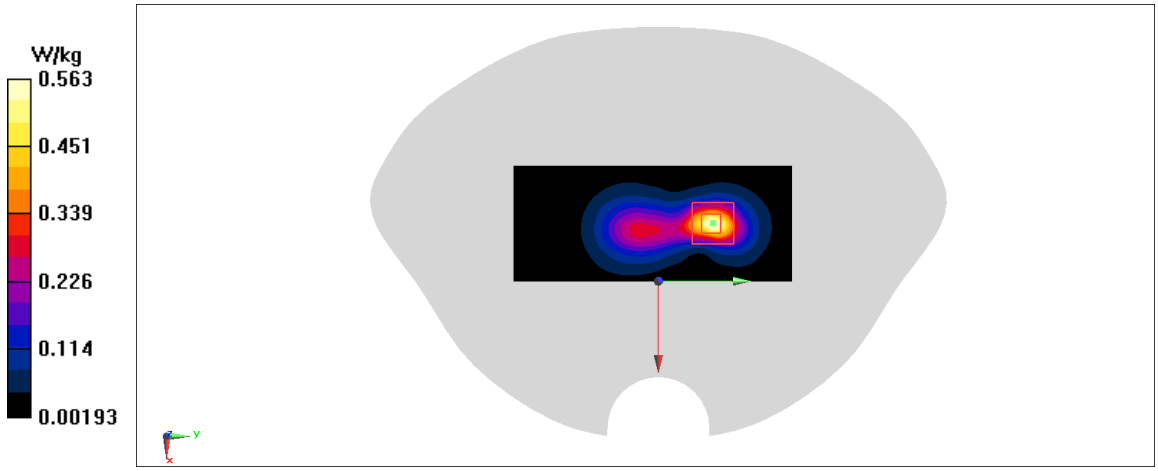



**Fig A.42**

**WLAN5G_CH64 Left Tilt**
Date: 6/21/2021
Electronics: DAE4 Sn536
Medium: head 5GHz
Medium parameters used: f = 5320 MHz; $\sigma$ = 4.715 mho/m; $\varepsilon r$ = 36.386; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C
Communication System: WLAN5G 5320 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(5.69,5.69,5.69)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.36 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 5.686 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 2.25 W/kg
**SAR(1 g) = 0.434 W/kg; SAR(10 g) = 0.105 W/kg**
Maximum value of SAR (measured) = 1.12 W/kg

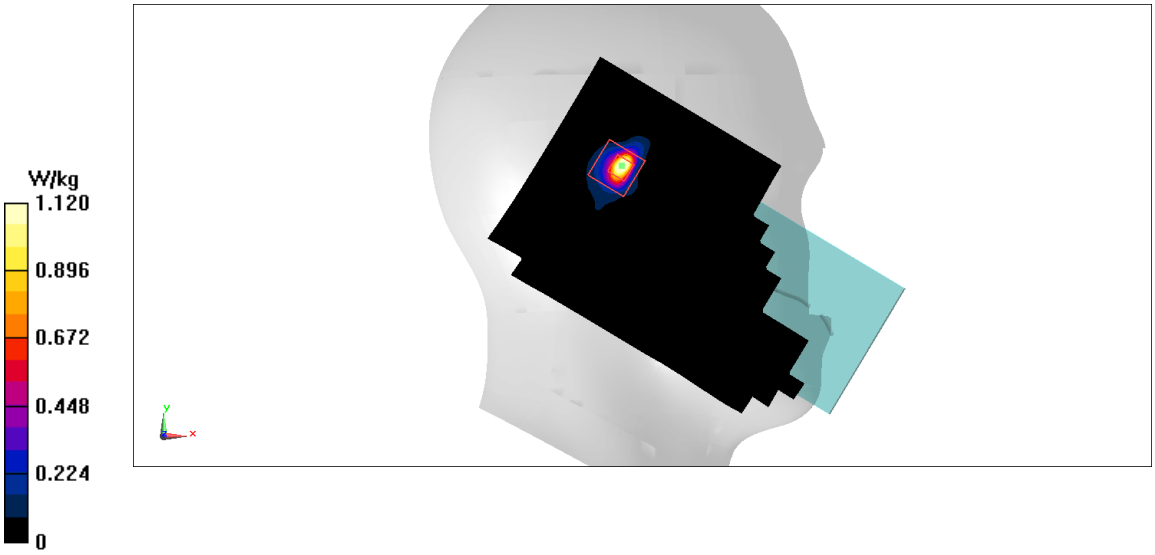



**Fig A.43**

**WLAN5G_CH60 Top 10mm**
Date: 6/21/2021
Electronics: DAE4 Sn536
Medium: head 5GHz
Medium parameters used: f = 5300 MHz; $\sigma$ = 4.619 mho/m; $\varepsilon r$ = 36.288; $\rho$ = 1000 kg/$m^3$
Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C
Communication System: WLAN5G 5300 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(5.69,5.69,5.69)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.896 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 6.444 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 1.46 W/kg
**SAR(1 g) = 0.371 W/kg; SAR(10 g) = 0.121 W/kg**
Maximum value of SAR (measured) = 0.905 W/kg

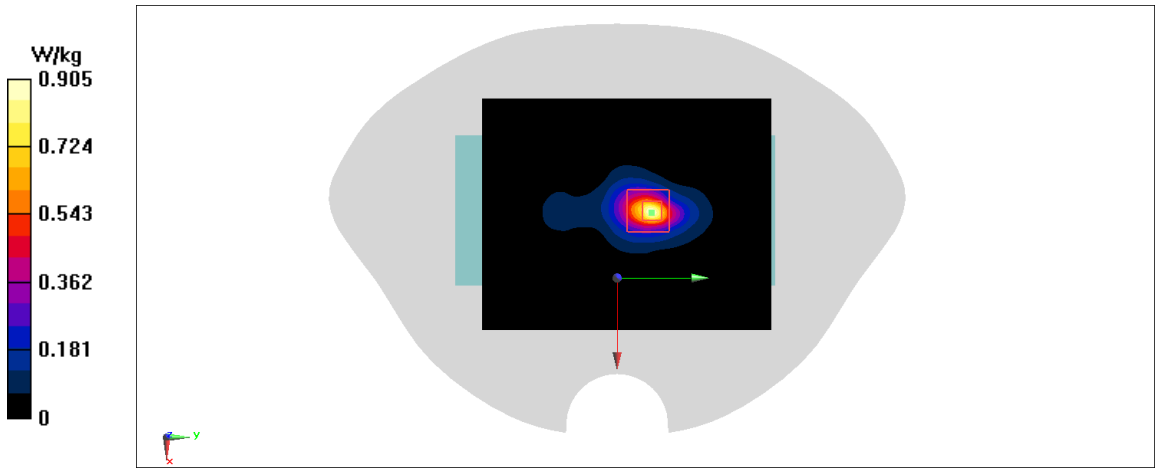



**Fig A.44**

**WCDMA1900-BII_CH9262 Rear 0mm for extremity SAR**

Date: 6/20/2021

Electronics: DAE4 Sn536

Medium: head 1900 MHz

Medium parameters used: f = 1852.4 MHz; $\sigma$ = 1.365 mho/m; $\varepsilon r$ = 39.44; $\rho$ = 1000 kg/$m^3$

Ambient Temperature: 22.5°C, Liquid Temperature: 22.3°C

Communication System: WCDMA1900-BII 1852.4 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7307 ConvF(8.32,8.32,8.32)

**Area Scan (71x121x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 14.3 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.62 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 17.1 W/kg
**SAR(1 g) = 6.38 W/kg; SAR(10 g) = 3.14 W/kg**
Maximum value of SAR (measured) = 11.9 W/kg

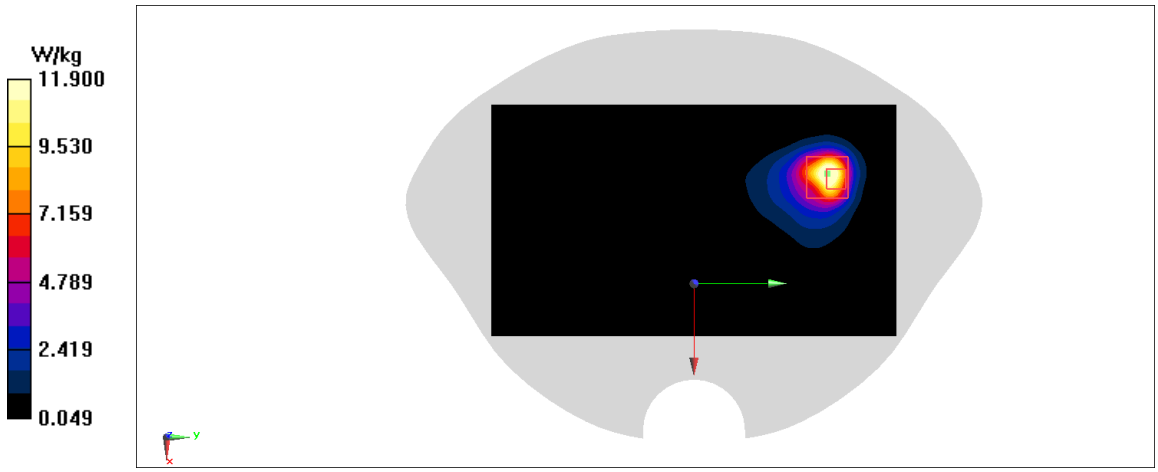
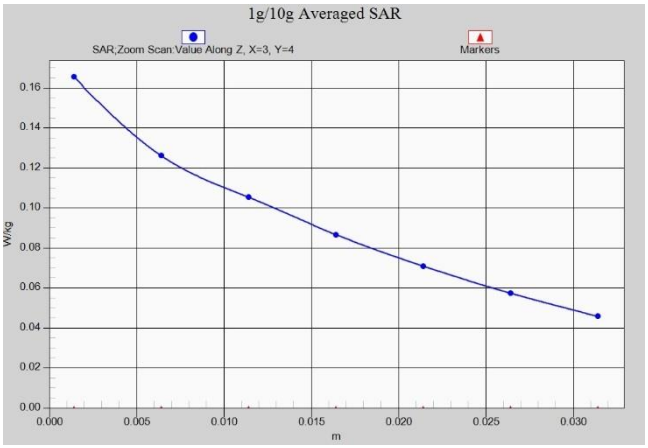
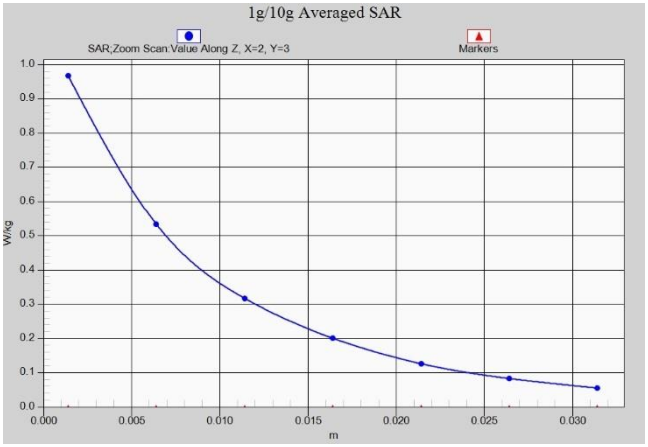


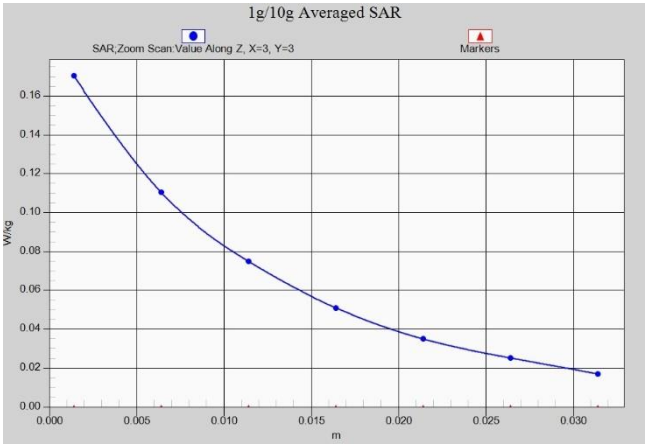

**Fig A.45**



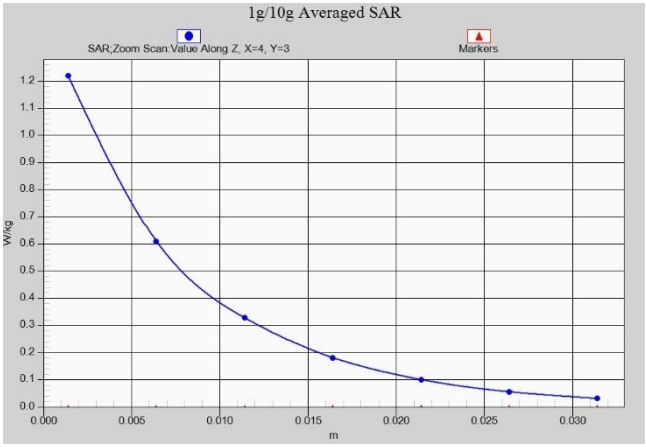

**Z-Scan at power reference point (850 MHz)**



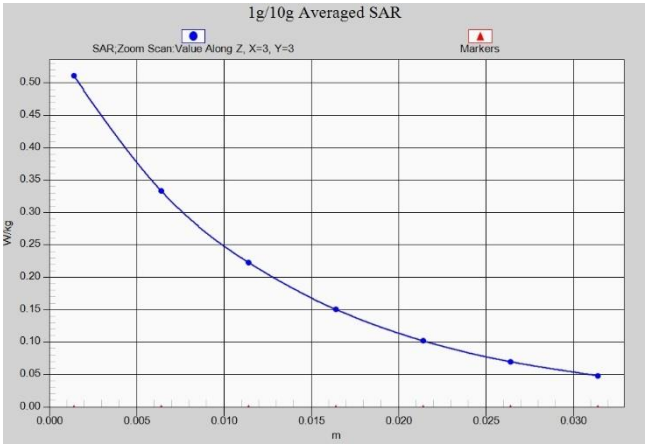

**Z-Scan at power reference point (850 MHz)**



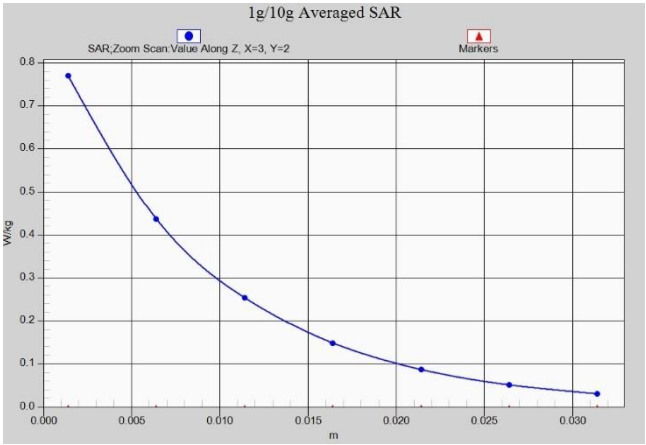

**Z-Scan at power reference point (1900 MHz)**



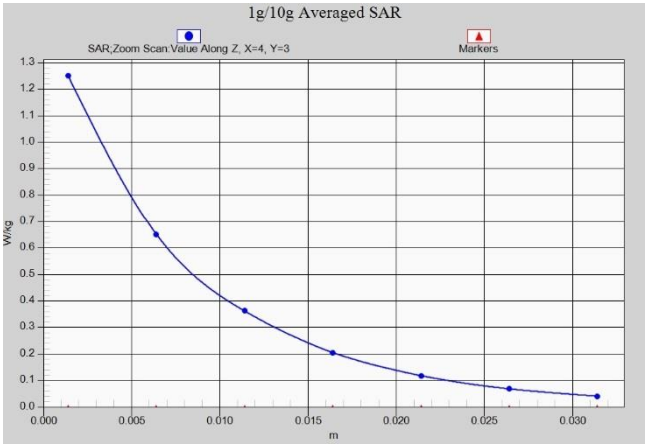

**Z-Scan at power reference point (GSM1900)**



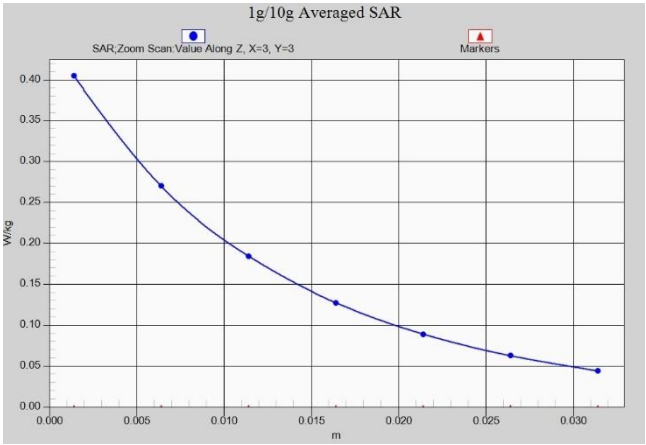

**Z-Scan at power reference point (WCDMA1900)**



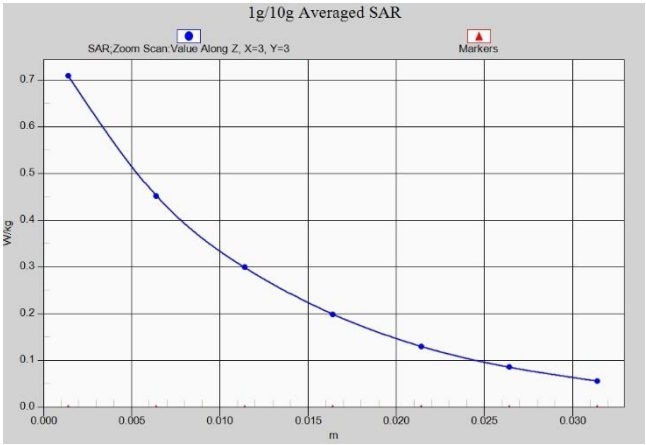

**Z-Scan at power reference point (WCDMA1900)**



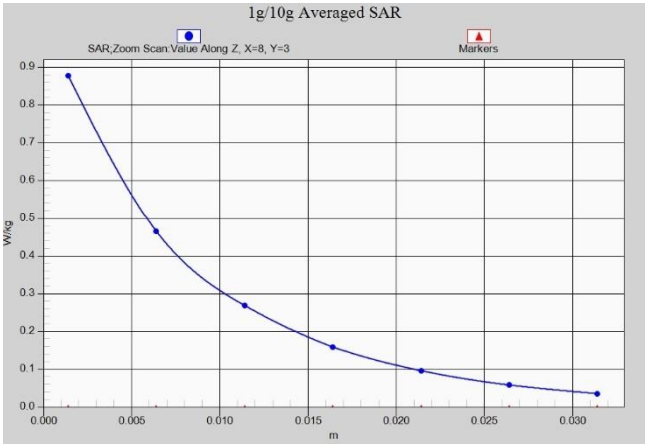

**Z-Scan at power reference point (WCDMA1900)**



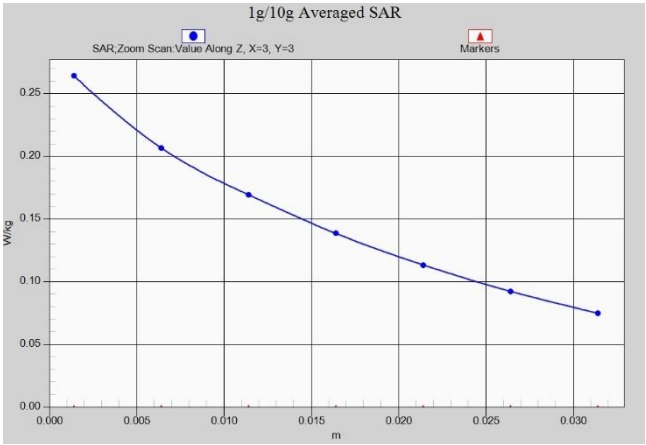

**Z-Scan at power reference point (WCDMA1700)**



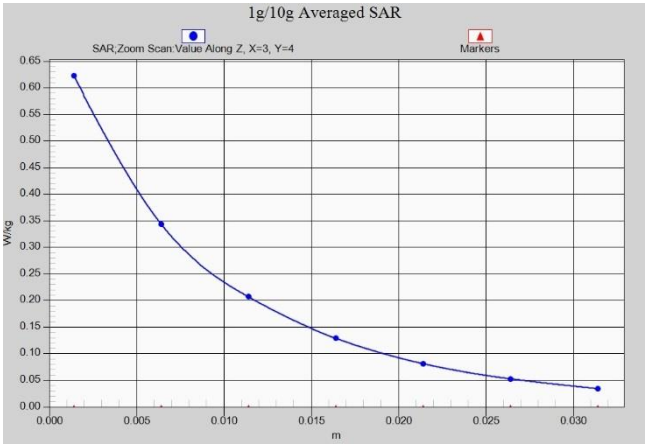

**Z-Scan at power reference point (WCDMA1700)**



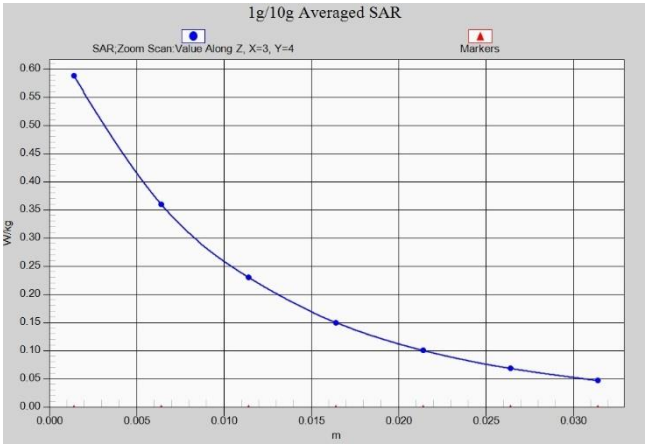

**Z-Scan at power reference point (WCDMA1700)**



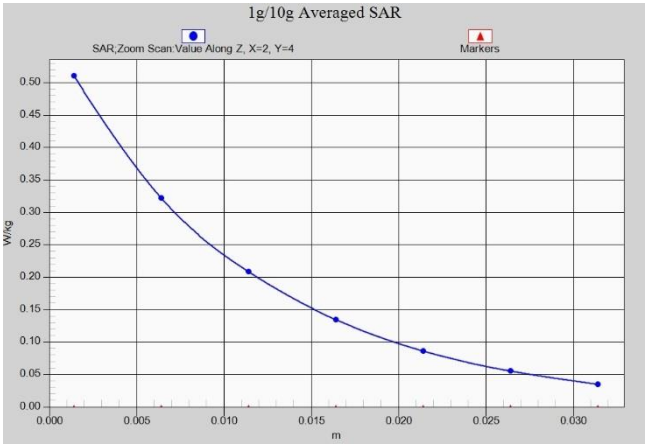

**Z-Scan at power reference point (WCDMA850)**



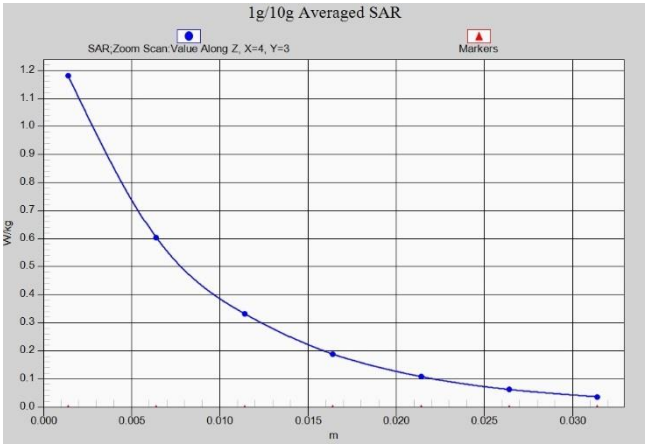

**Z-Scan at power reference point (WCDMA850)**



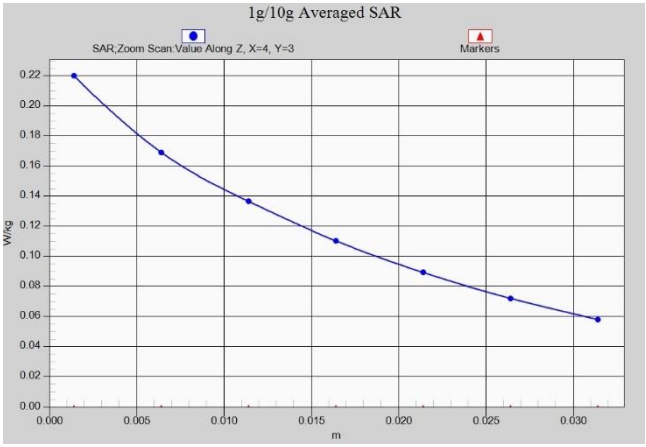

**Z-Scan at power reference point (LTEB2)**



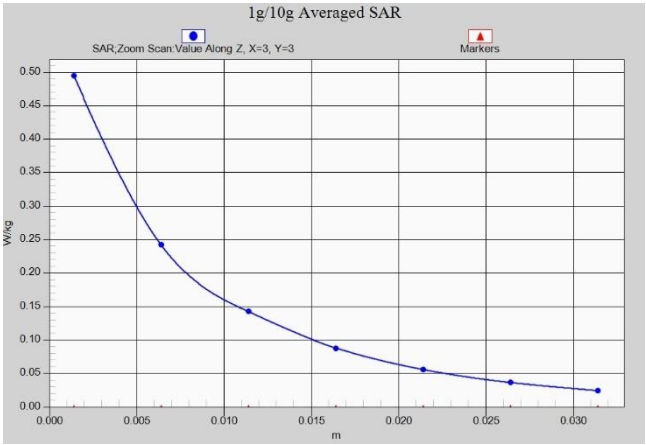

**Z-Scan at power reference point (LTEB2)**



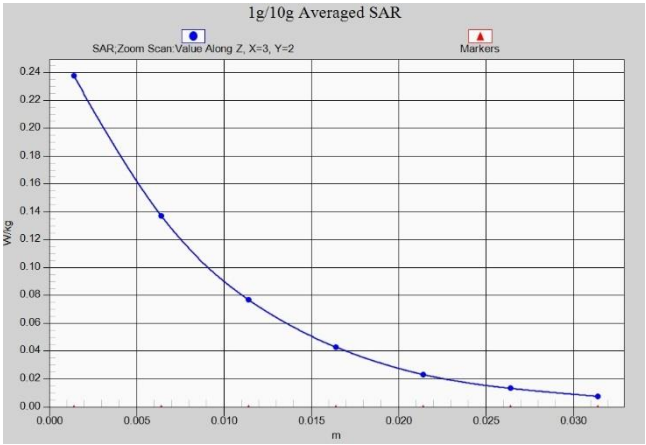

**Z-Scan at power reference point (LTEB2)**



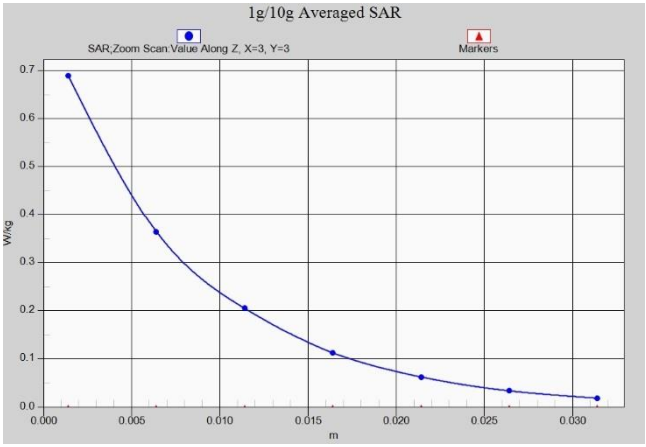

**Z-Scan at power reference point (LTEB5)**



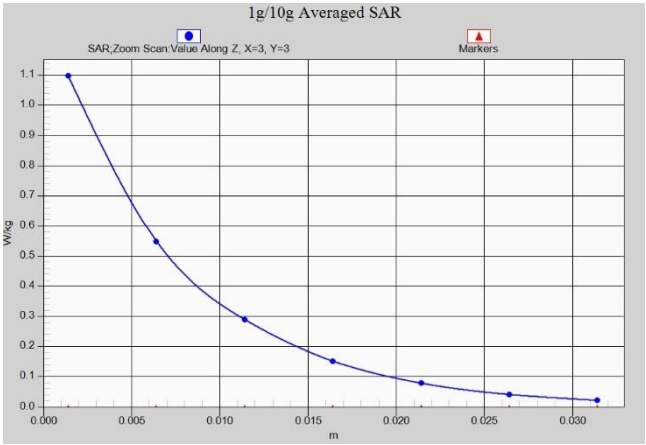

**Z-Scan at power reference point (LTEB5)**



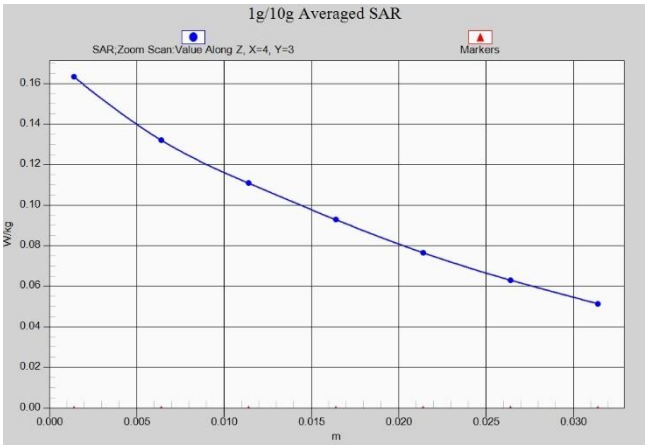

**Z-Scan at power reference point (LTEB7)-ANT0**



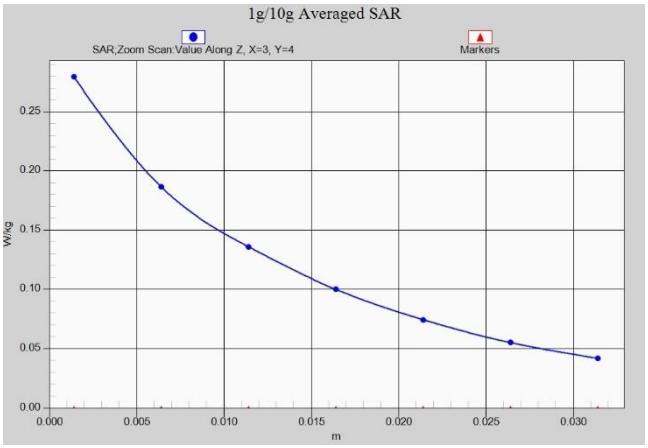

**Z-Scan at power reference point (LTEB7) -ANT0**



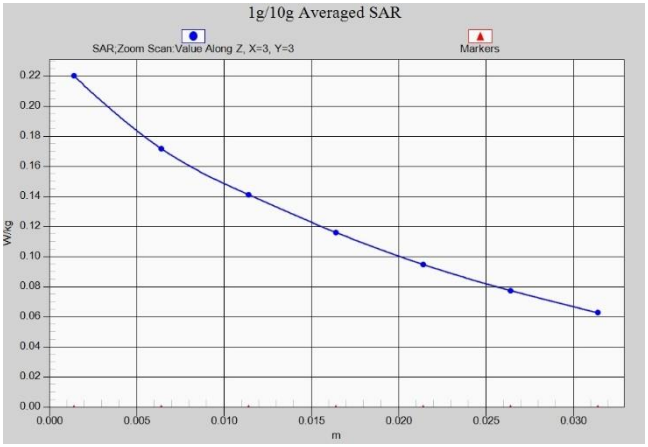

**Z-Scan at power reference point (LTEB7) -ANT0**



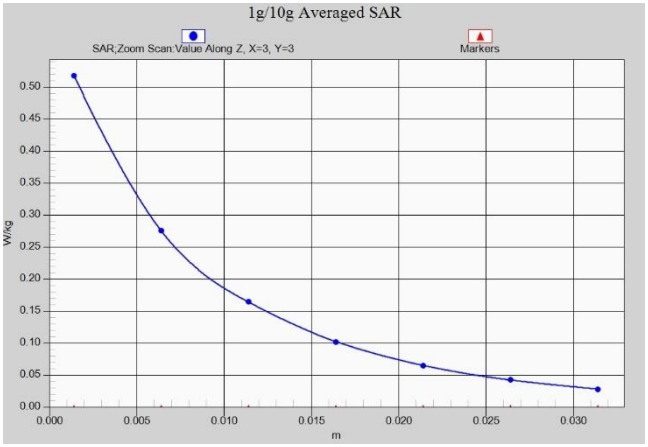

**Z-Scan at power reference point (LTEB12)**



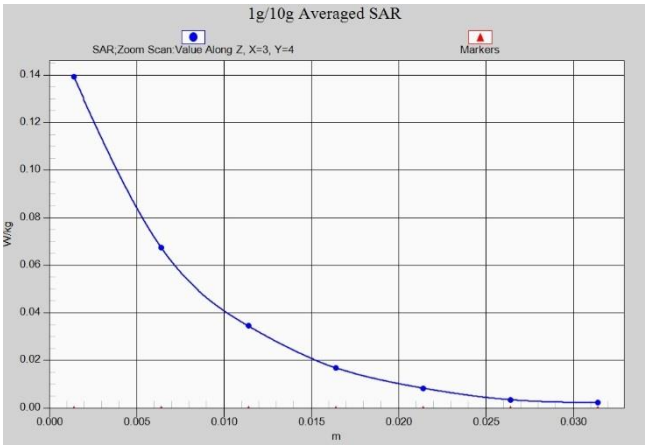

**Z-Scan at power reference point (LTEB12)**



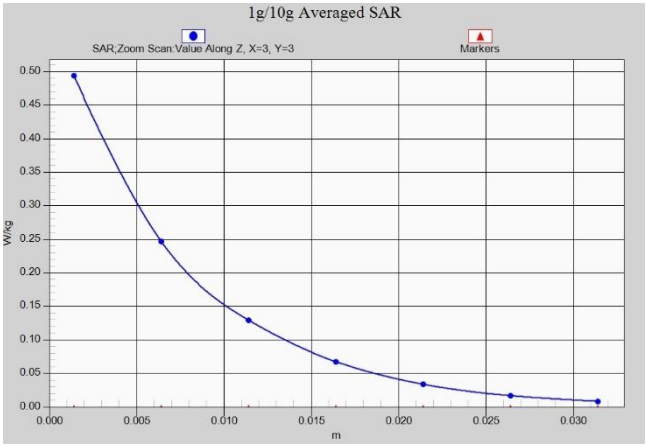

**Z-Scan at power reference point (LTEB26)**



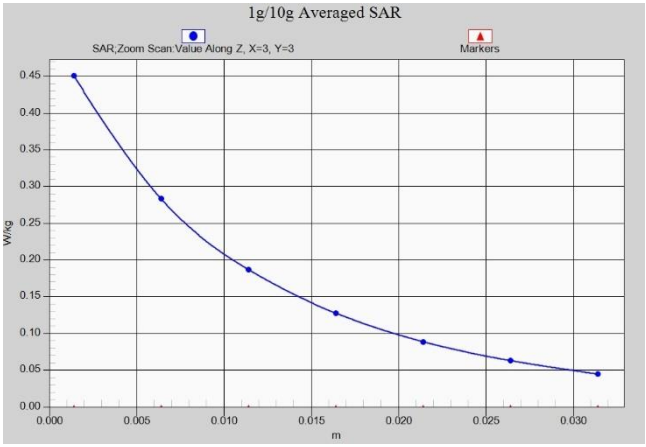

**Z-Scan at power reference point (LTEB26)**



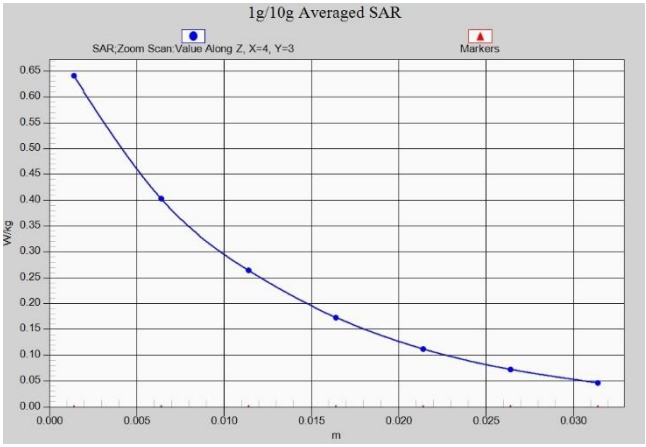

**Z-Scan at power reference point (LTEB41)**



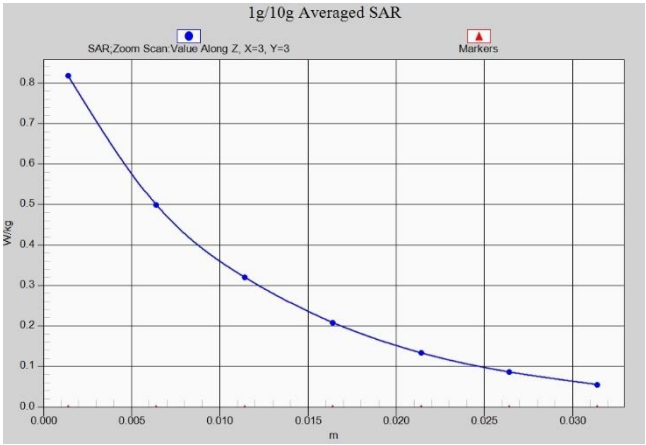

**Z-Scan at power reference point (LTEB41)**



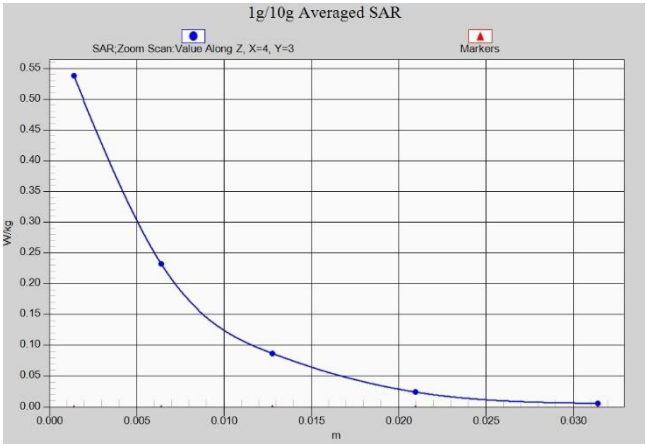

**Z-Scan at power reference point (LTEB66)**



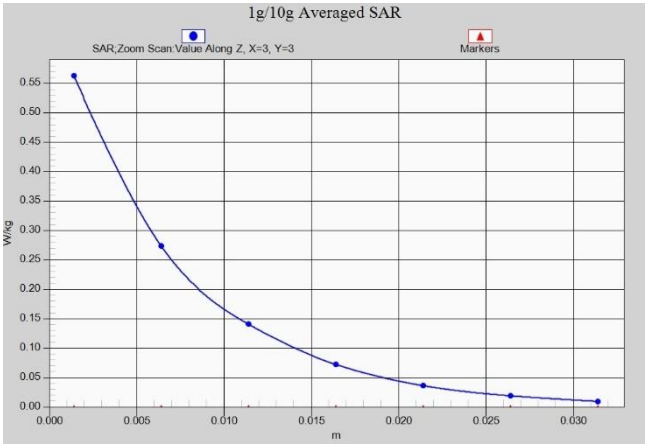

**Z-Scan at power reference point (LTEB66)-ANT0**



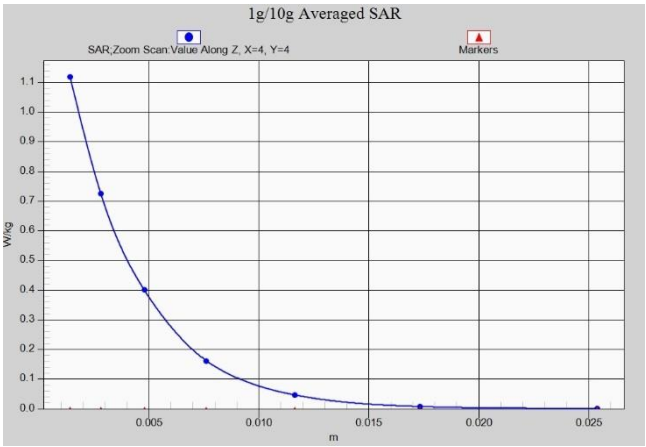

**Z-Scan at power reference point (LTEB66) -ANT0**



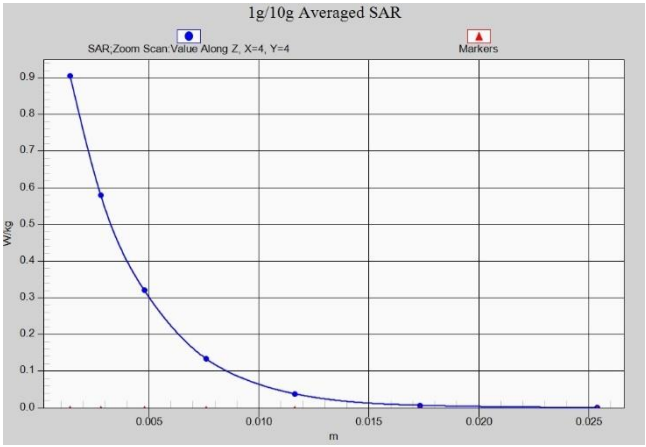

**Z-Scan at power reference point (WIFI2.4G)**




**Z-Scan at power reference point (WIFI2.4G)**




**Z-Scan at power reference point (WIFI5G)**




**Z-Scan at power reference point (WIFI5G)**

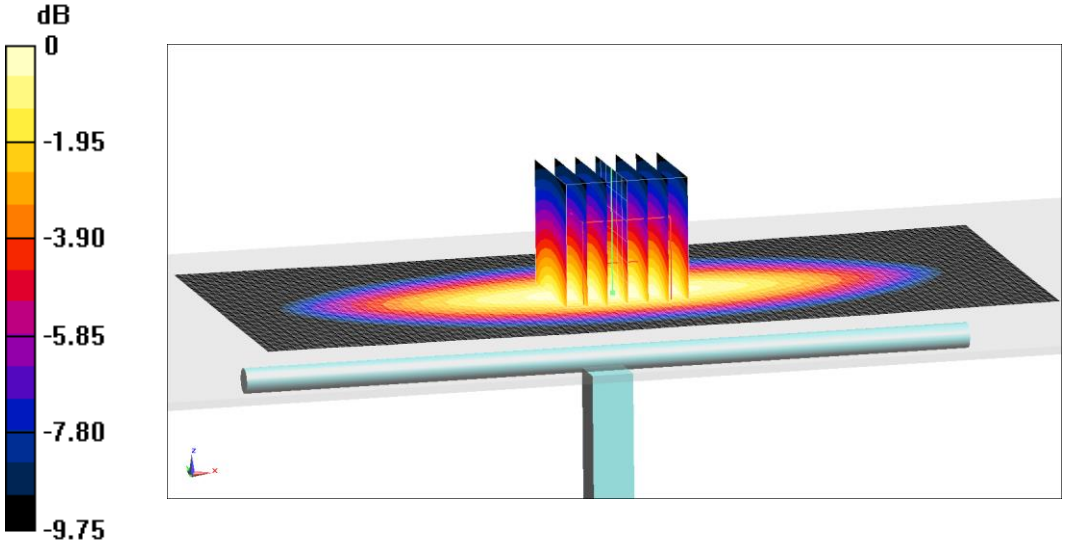
# ANNEX B System Verification Results

## 750 MHz

Date: 6/17/2021
Electronics: DAE4 Sn536
Medium: Head 750 MHz
Medium parameters used: f = 750 MHz; $\sigma$ =0.89 mho/m; $\varepsilon_r$ = 42.5; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.5ºC Liquid Temperature: 22.3ºC
Communication System: CW Frequency: 750 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(10.31,10.31,10.31)

**System Validation /Area Scan (81x191x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 58.74 V/m; Power Drift = -0.02
**Fast SAR: SAR(1 g) = 2.11 W/kg; SAR(10 g) = 1.38 W/kg**
Maximum value of SAR (interpolated) = 2.85 W/kg

**System Validation /Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value =58.74 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 3.28 W/kg
**SAR(1 g) = 2.16 W/kg; SAR(10 g) = 1.36 W/kg**
Maximum value of SAR (measured) = 2.85 W/kg




0 dB = 2.85 W/kg = 4.55 dB W/kg

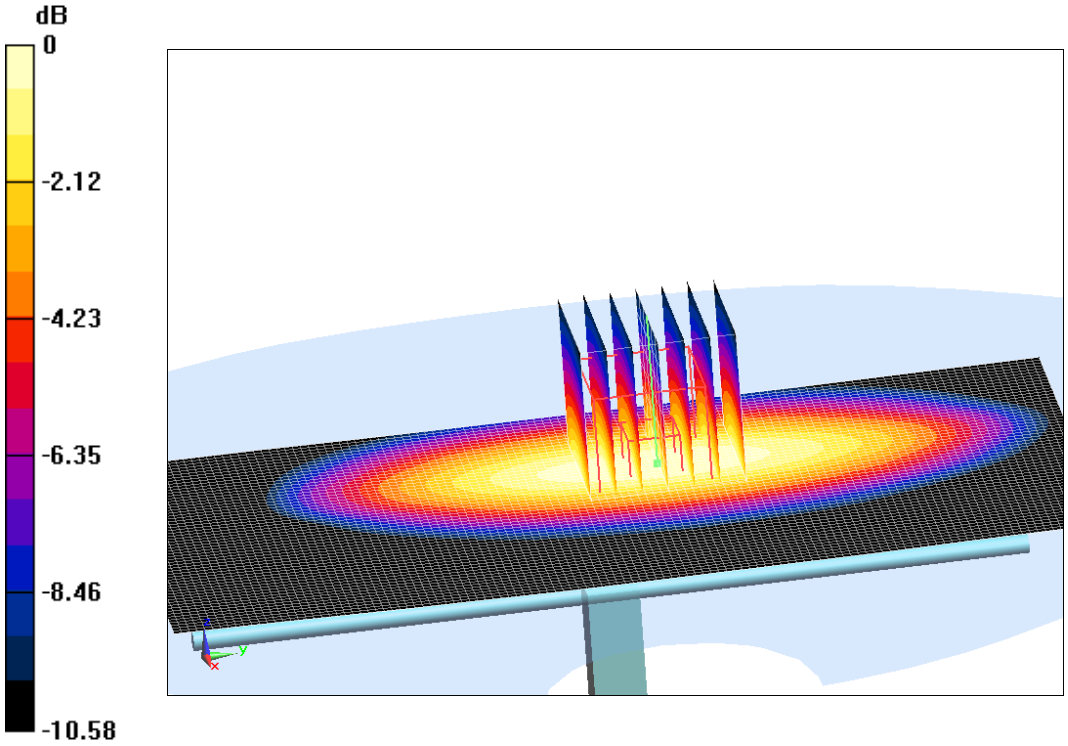
**Fig.B.1 validation 750 MHz 250mW**

## 835 MHz

Date: 6/18/2021
Electronics: DAE4 Sn536
Medium: Head 835 MHz
Medium parameters used: f = 835 MHz; $\sigma$ =0.888 mho/m; $\varepsilon_r$ = 40.69; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.5°C Liquid Temperature: 22.3°C
Communication System: CW Frequency: 835 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(10.2,10.2,10.2)

**System Validation /Area Scan (81x191x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 62.83 V/m; Power Drift = 0.1
**Fast SAR: SAR(1 g) = 2.37 W/kg; SAR(10 g) = 1.53 W/kg**
Maximum value of SAR (interpolated) = 3.19 W/kg

**System Validation /Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value =62.83 V/m; Power Drift = 0.1 dB
Peak SAR (extrapolated) = 3.66 W/kg
**SAR(1 g) = 2.43 W/kg; SAR(10 g) = 1.55 W/kg**
Maximum value of SAR (measured) = 3.27 W/kg




0 dB = 3.27 W/kg = 5.15 dB W/kg

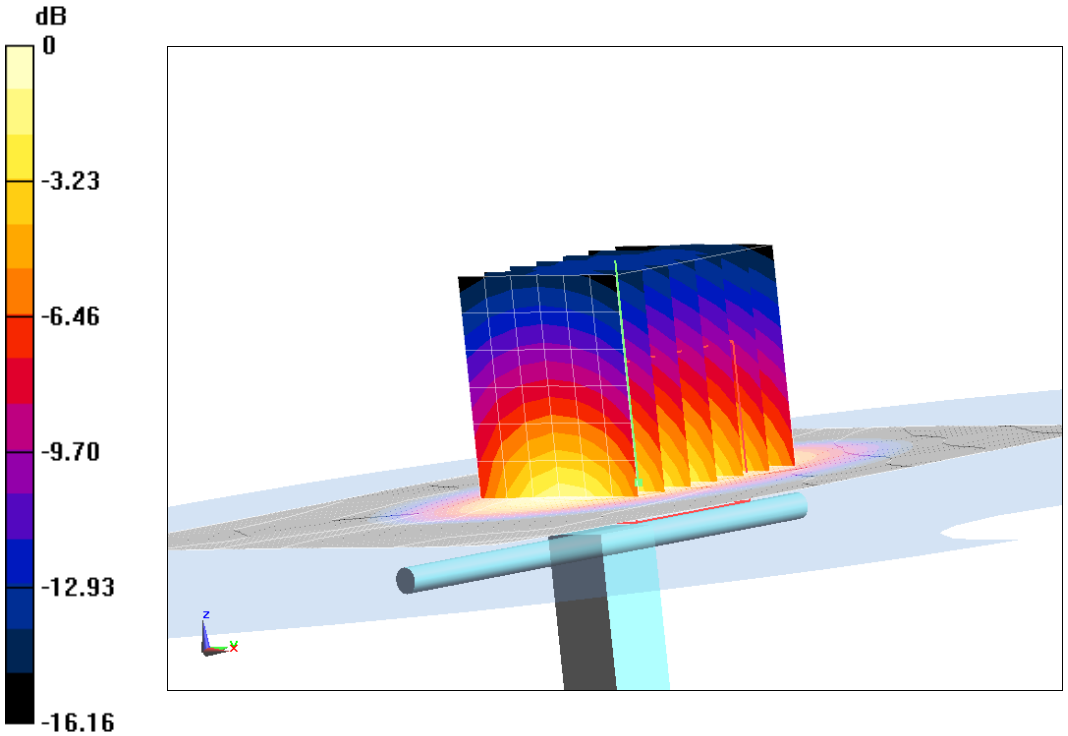
**Fig.B.2 validation 835 MHz 250mW**

## 1750 MHz

Date: 6/19/2021
Electronics: DAE4 Sn536
Medium: Head 1750 MHz
Medium parameters used: f = 1750 MHz; $\sigma$ =1.354 mho/m; $\varepsilon_r$ = 40.2; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.5°C Liquid Temperature: 22.3°C
Communication System: CW Frequency: 1750 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(8.61,8.61,8.61)

**System Validation /Area Scan (81x191x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 106.22 V/m; Power Drift = 0.01
**Fast SAR: SAR(1 g) = 9.29 W/kg; SAR(10 g) = 4.87 W/kg**
Maximum value of SAR (interpolated) = 13.78 W/kg

**System Validation /Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value =106.22 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 16.83 W/kg
**SAR(1 g) = 9.09 W/kg; SAR(10 g) = 4.87 W/kg**
Maximum value of SAR (measured) = 13.92 W/kg




0 dB = 13.92 W/kg = 11.44 dB W/kg

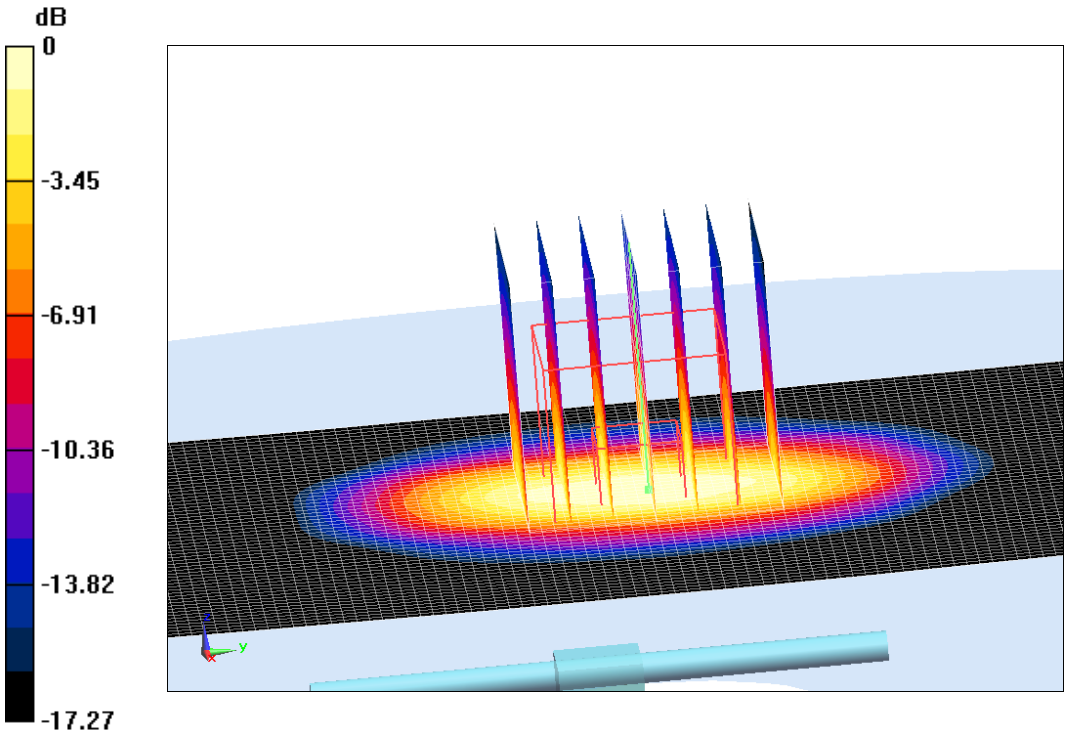
**Fig.B.3 validation 1750 MHz 250mW**

## 1900 MHz

Date: 6/20/2021
Electronics: DAE4 Sn536
Medium: Head 1900 MHz
Medium parameters used: f = 1900 MHz; $\sigma$ =1.411 mho/m; $\varepsilon_r$ = 39.38; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.5ºC Liquid Temperature: 22.3ºC
Communication System: CW Frequency: 1900 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(8.32,8.32,8.32)

**System Validation /Area Scan (81x191x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 108.46 V/m; Power Drift = -0.04
**Fast SAR: SAR(1 g) = 9.85 W/kg; SAR(10 g) = 5.22 W/kg**
Maximum value of SAR (interpolated) = 14.99 W/kg

**System Validation /Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value =108.46 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 18.42 W/kg
**SAR(1 g) = 9.99 W/kg; SAR(10 g) = 5.13 W/kg**
Maximum value of SAR (measured) = 15.29 W/kg




0 dB = 15.29 W/kg = 11.84 dB W/kg

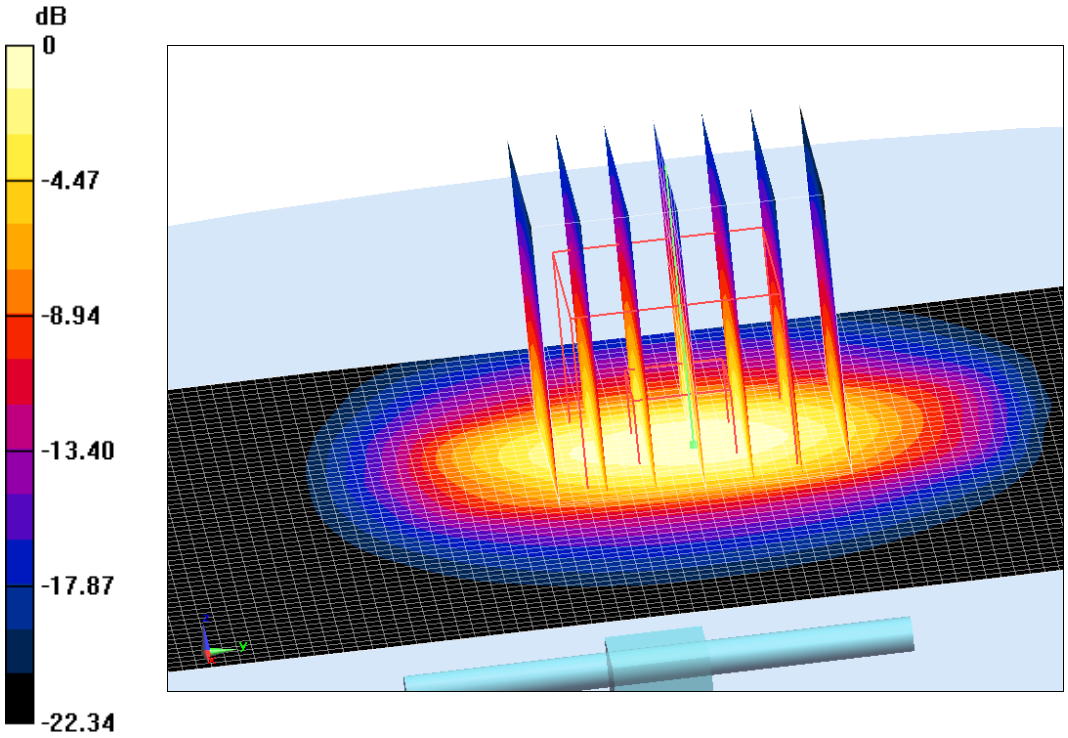
**Fig.B.4 validation 1900 MHz 250mW**

## 2450 MHz

Date: 6/21/2021
Electronics: DAE4 Sn536
Medium: Head 2450 MHz
Medium parameters used: f = 2450 MHz; $\sigma$ =1.818 mho/m; $\varepsilon_r$ = 39.83; $\rho$ = 1000 kg/m$^3$
Ambient Temperature: 22.5°C Liquid Temperature: 22.3°C
Communication System: CW Frequency: 2450 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7307 ConvF(7.75,7.75,7.75)

**System Validation /Area Scan (81x191x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 118.99 V/m; Power Drift = -0.04
**Fast SAR: SAR(1 g) = 13.28 W/kg; SAR(10 g) = 6.14 W/kg**
Maximum value of SAR (interpolated) = 21.64 W/kg

**System Validation /Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value =118.99 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 25.69 W/kg
**SAR(1 g) = 13 W/kg; SAR(10 g) = 6.2 W/kg**
Maximum value of SAR (measured) = 21.45 W/kg




0 dB = 21.45 W/kg = 13.31 dB W/kg

**Fig.B.5 validation 2450 MHz 250mW**