



No.I21Z62337-SEM03



# SAR TEST REPORT

No. I21Z62337-SEM03

For

**TCL Communication Ltd.**

**5G NR/LTE/WCDMA/GSM mobile phone**

**Model Name: T779W**

with

**Hardware Version: 03**

**Software Version: 8G32**

**FCC ID: 2ACCJN058**

**Issued Date: 2022-2-15**

**Note:**

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## **REPORT HISTORY**

<b>Report Number</b>	<b>Revision</b>	<b>Issue Date</b>	<b>Description</b>
I21Z62337-SEM03	Rev.0	2022-2-6	Initial creation of test report
I21Z62337-SEM03	Rev.1	2022-2-15	1. Revise Lab address on first page and page5.

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## 1 Test Laboratory

### 1.1 Testing Location

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

### 1.2 Testing Environment

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

### 1.3 Project Data

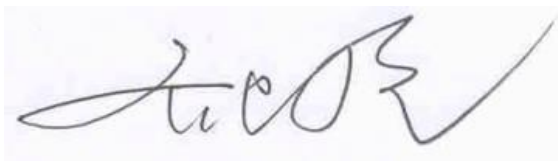
Project Leader:	Qi Dianyuan
Test Engineer:	Yao Juming
Testing Start Date:	November 19, 2021
Testing End Date:	January 23, 2022

### 1.4 Signature



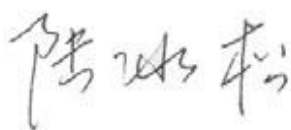
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**Yao Juming**  
(Prepared this test report)



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



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

## 2 Statement of Compliance

This EUT is a variant product and the report of original sample is No.I21Z62045-SEM03. We do full test for newly add bands LTE B5 and 5G NR n2(SA&NSA)/n5(SA&NSA)/n70(SA)/n77(NSA). The results of newly add bands and ENDC are presented in the annex J.

The maximum results of Specific Absorption Rate (SAR) found during testing for TCL Communication Ltd. 5G NR/LTE/WCDMA/GSM mobile phone T779W are as follows:

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

Technology Band	Head (Separation Distance 0mm)	Hotspot (Separation Distance 10mm)	Phablet-10g (Separation Distance 0mm)	Equipment Class
GSM850	1.20	0.58	/	PCE
GSM1900	1.02	0.80	/	
WCDMA1900	1.15	1.12	/	
WCDMA1700	0.99	0.87	/	
WCDMA 850	1.02	0.51	/	
LTE Band2-ANT2	1.25	1.11	/	
LTE Band2-ANT1	0.15	0.48	/	
LTE Band5	1.18	1.04	/	
LTE Band7	1.05	0.66	/	
LTE Band12	0.82	0.55	/	
LTE Band13	0.61	0.37	/	
LTE Band25	1.06	1.04	/	
LTE Band26	0.81	0.74	/	
LTE Band41-PC3	0.78	0.90	/	
LTE Band41-PC2	1.03	1.17	/	
LTE Band66-ANT2	0.94	0.79	/	
LTE Band66-ANT1	0.08	0.52	/	
LTE Band71	0.91	0.57	/	
5G NR n2	1.01	0.89	/	
5G NR n5	1.15	1.11	/	
5G NR n25	1.17	1.14	/	
5G NR n41	1.08	1.14	/	
5G NR n66	1.06	1.06	/	
5G NR n70	1.05	1.01	/	
5G NR n71	1.03	0.66	/	
5G NR n77	0.78	0.77	/	
WLAN 2.4GHz	0.98	0.67	/	DTS
WLAN 5GHz	0.98	1.25	1.75	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 10 mm between this device and the body of the user. Use of other accessories may not ensure compliance with FCC RF exposure guidelines.

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

The measurement together with the test system set-up is described in annex C of this test report. A detailed description of the equipment under test can be found in chapter 4 of this test report. The highest reported SAR value is obtained at the case of **(Table 2.1)**, and the values are: **1.25 W/kg(1g)**.

**Remark:**

This device supports both LTE B4/B5/B38 and LTE B66/B26/B41. Since the supported frequency span for LTE B4/B5/B38 falls completely within the supports frequency span for LTE B25/B26/B41, both LTE bands have the same target power, and both LTE bands share the same transmission path; therefore, SAR was only assessed for LTE B66/B26/B41.

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

	Position	Main antenna	WiFi-2.4G	Sum
<b>Highest SAR value for Head</b>	Right head, Cheek (LTE B2-ANT2)	1.25	0.12	<b>1.37</b>
<b>Highest SAR value for Body</b>	Right 10mm (LTE B41-PC2)	1.17	0.26	<b>1.43</b>

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

	Position	Main antenna	WiFi-5G	Sum
<b>Highest SAR value for Head</b>	Right head, Cheek (LTE B2-ANT2)	1.25	0.18	<b>1.43</b>
	Right head, Tilt (LTE B5)	1.18	0.25	<b>1.43</b>
<b>Highest SAR value for Body</b>	Right 10mm (LTE B41-PC2)	1.17	0.16	<b>1.33</b>

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

	Position	Main antenna	BT	Sum
<b>Maximum reported SAR value for Head</b>	Right head, Cheek (LTE B2-ANT2)	1.25	<0.01	<b>1.25</b>
<b>Maximum reported SAR value for Body</b>	Right 10mm (LTE B41-PC2)	1.17	<0.01	<b>1.17</b>

**Table 2.5: The sum of SAR values for Main antenna + WiFi-5G + BT**

	Position	Main antenna	WiFi-5G	BT	Sum
<b>Highest SAR value for Head</b>	Right head, Cheek (LTE B2-ANT2)	1.25	0.18	<0.01	<b>1.43</b>
	Right head, Tilt (LTE B5)	1.18	0.25	<0.01	<b>1.43</b>
<b>Highest SAR value for Body</b>	Right 10mm (LTE B41-PC2)	1.17	0.16	<0.01	<b>1.33</b>

According to the above tables, the highest sum of reported SAR values is **1.43 W/kg (1g)**. The detail for simultaneous transmission consideration is described in chapter 13.



### 3 Client Information

#### 3.1 Applicant Information

Company Name:	TCL Communication Ltd.
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#### 3.2 Manufacturer Information

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Contact Person:	Peter yang
Contact Email:	peter.yang@tcl.com
Telephone:	+86 755 3664 5759
Fax:	+86 755 3661 2000-81722

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

### 4.1 About EUT

Description:	5G NR/LTE/WCDMA/GSM mobile phone
Model name:	T779W
Operating mode(s):	GSM850/900/1800/1900, WCDMA850/900/1700/1900/2100 LTE Band 1/2/3/4/5/7/8/12/13/20/25/26/28/38/39/40/41/66/71 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)
	779.5 – 784.5 MHz (LTE Band 13)
	1850.7 – 1914.3 MHz (LTE Band 25)
	814.7–848.3 MHz (LTE Band 26)
	2498.5 –2687.5 MHz (LTE Band 41)
	1710.7 –1779.3 MHz (LTE Band 66)
	665.5 –695.5 MHz (LTE Band 71)
	1850 – 1910 MHz(n2)
	824 – 849 MHz(n5)
	1850 – 1915 MHz(n25)
	2496 – 2690 MHz(n41)
	1710 – 1780 MHz (n66)
	1695 – 1710 MHz (n70)
	663 – 698 MHz(n71)
	3450– 3550 MHz ,3700– 3980 MHz (n77)
2412 – 2462 MHz (Wi-Fi 2.4G)	
5180 – 5240 MHz (Wi-Fi 5.2G)	
5260 – 5320 MHz (Wi-Fi 5.3G)	
5500 – 5720 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	0161 7100 0003 021	03	8G32
EUT2	0160 9900 0010 433	03	8G32
EUT3	0161 7100 0003 039	03	8G32

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

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

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

AE ID*	Description	Model	SN	Manufacturer
AE1	Battery	TLp038E1	/	BYD

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

## 5 TEST METHODOLOGY

### 5.1 Applicable Limit Regulations

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

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

### 5.2 Applicable Measurement Standards

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

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

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

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

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

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

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

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

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

**TCB Workshop Nov 2017:** RF Exposure Procedures (Carrier Aggregation 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 heat capacity,  $\delta T$  is the temperature rise and  $\delta t$  is the exposure duration, or related to the electrical field in the tissue by

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

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

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

## 7 Tissue Simulating Liquids

### 7.1 Targets for tissue simulating liquid

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

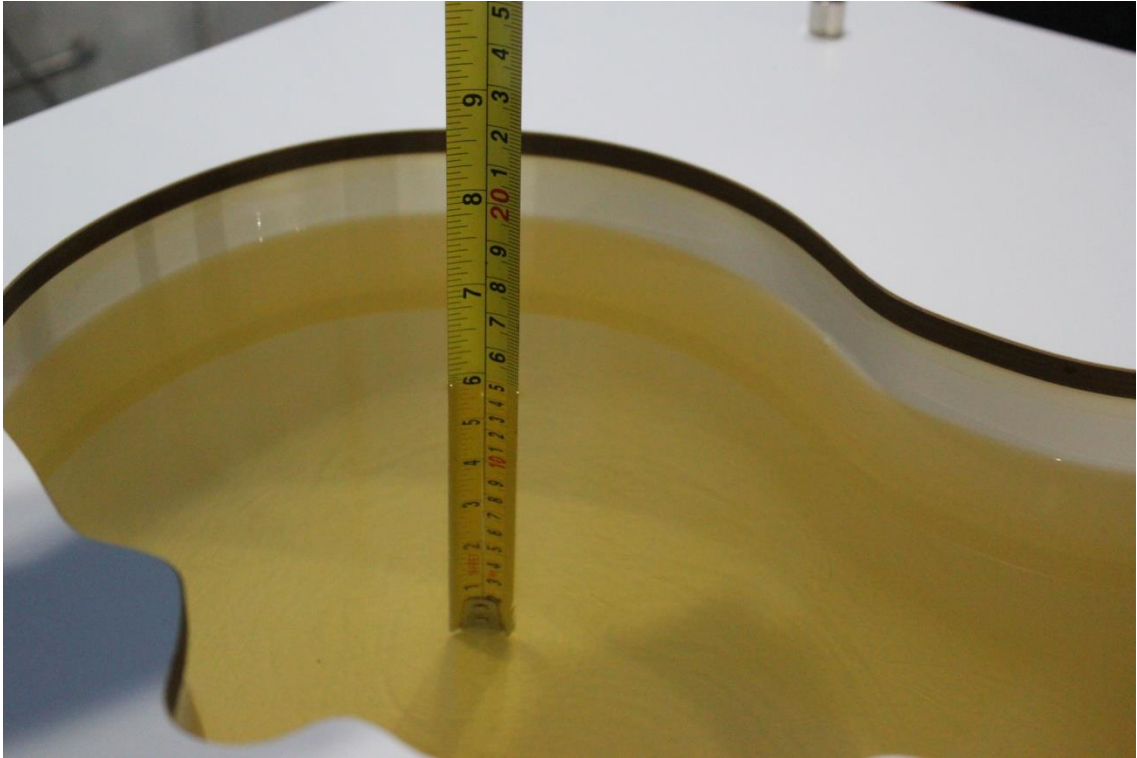
Frequency(MHz)	Liquid Type	Conductivity( $\sigma$ )	$\pm 5\%$ Range	Permittivity( $\epsilon$ )	$\pm 5\%$ Range
750	Head	0.89	0.85~0.93	41.94	39.8~44.0
835	Head	0.90	0.86~0.95	41.5	39.4~43.6
1750	Head	1.37	1.30~1.44	40.08	38.1~42.1
1900	Head	1.40	1.33~1.47	40.0	38.0~42.0
2450	Head	1.67	1.59~1.75	39.47	37.5~41.4
2600	Head	1.96	1.86~2.06	39.01	37.1~41.0
3500	Head	2.91	2.76~3.06	37.93	36.03~39.83
3800	Head	3.22	3.06~3.38	37.59	35.71~39.47
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

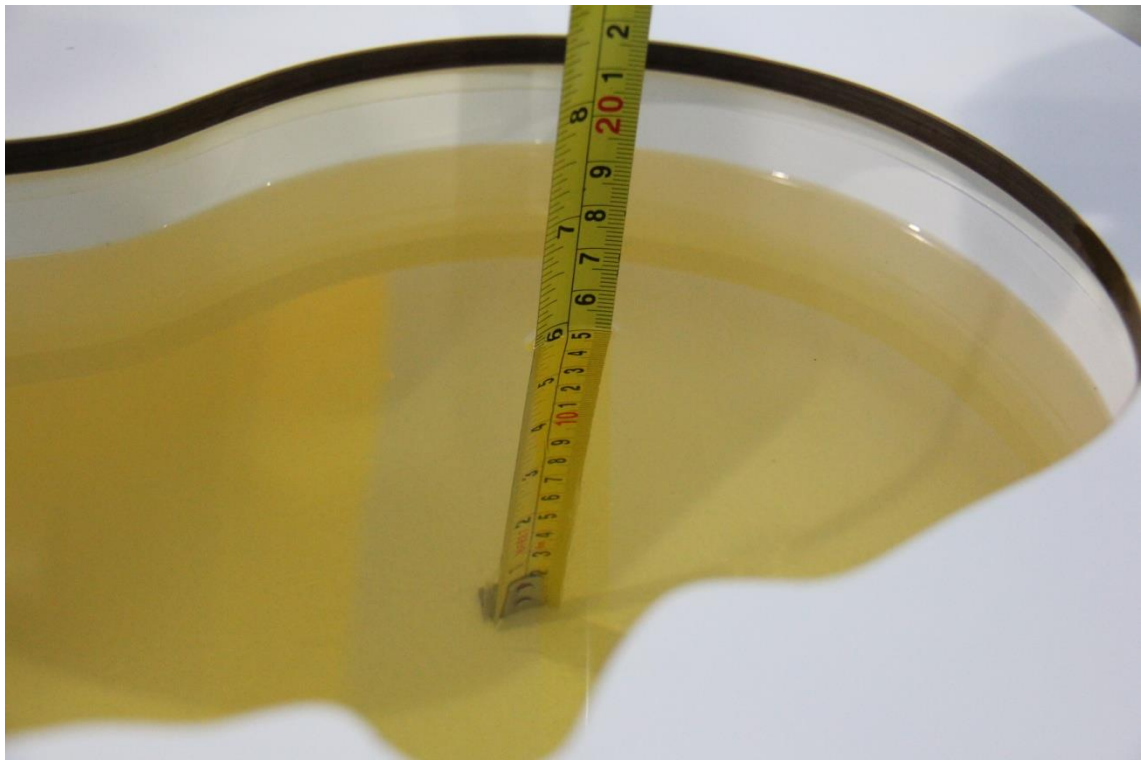
**Table 7.2: Dielectric Performance of Tissue Simulating Liquid**

Measurement Date (yyyy-mm-dd)	Type	Frequency	Permittivity $\epsilon$	Drift (%)	Conductivity $\sigma$ (S/m)	Drift (%)
2021-11-19	Head	750 MHz	44.55	6.22	0.8204	-7.82
2021-11-20	Head	750 MHz	44.35	5.75	0.824	-7.42
2021-11-21	Head	835 MHz	44.18	6.46	0.8571	-4.77
2021-11-22	Head	835 MHz	44.09	6.24	0.8592	-4.53
2021-11-23	Head	1750 MHz	41.99	4.77	1.377	0.51
2021-11-24	Head	1750 MHz	42.05	4.92	1.367	-0.22
2021-11-25	Head	1900 MHz	41.54	3.85	1.475	5.36
2021-11-26	Head	1900 MHz	41.43	3.58	1.453	3.79
2021-11-27	Head	2450 MHz	40.54	3.42	1.907	5.94
2021-11-28	Head	2600 MHz	40.2	3.05	2.044	4.29
2021-11-29	Head	2600 MHz	40.17	2.97	2.028	3.47
2021-11-30	Head	5250 MHz	34.75	-3.28	4.735	0.53
2021-12-1	Head	5600 MHz	34.05	-4.17	5.124	1.07
2021-12-2	Head	5750 MHz	33.79	-4.44	5.298	1.49
2021-12-3	Head	3500 MHz	38.32	1.03	2.858	-1.79
2021-12-3	Head	3800 MHz	37.66	0.19	3.16	-1.86

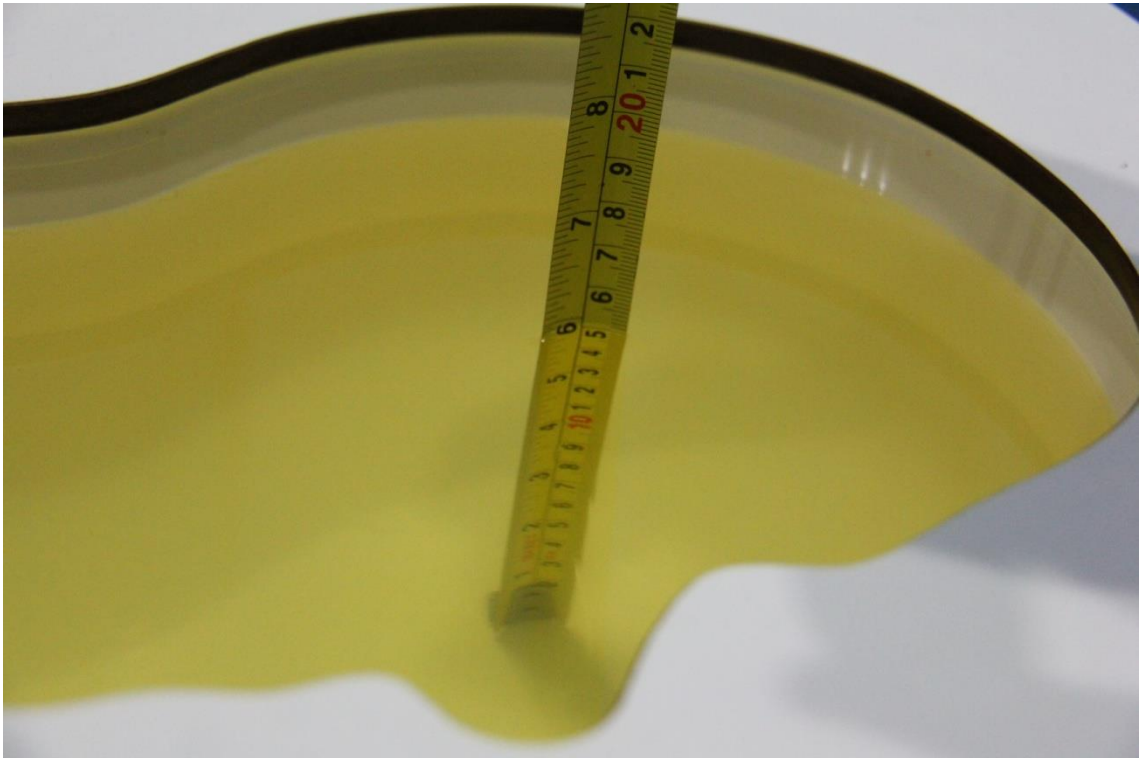
Note: The liquid temperature is 22.0°C



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



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



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



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





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



Picture 7-6 Liquid depth in the Head Phantom (3700 MHz)

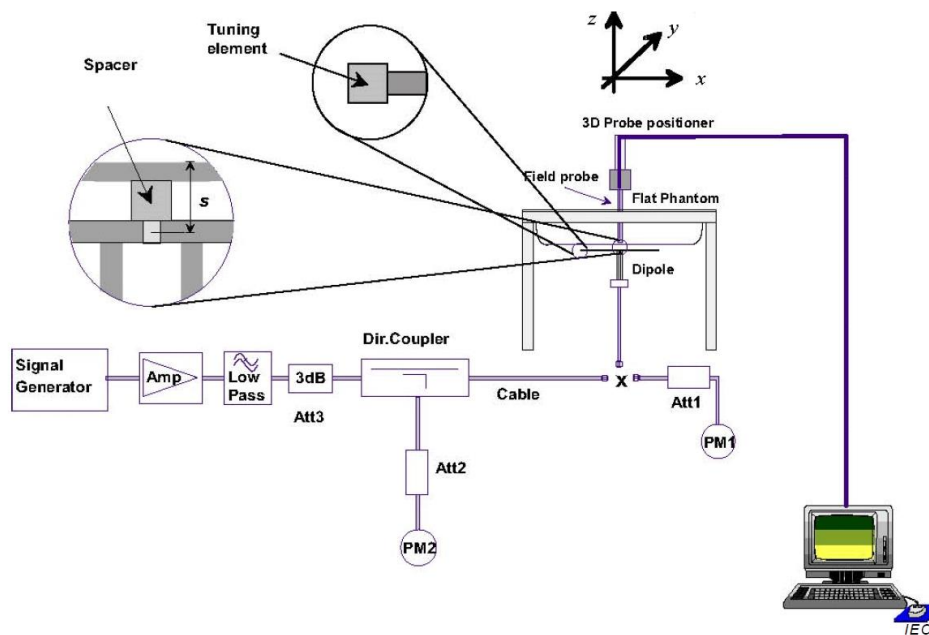


Picture 7-7 Liquid depth in the Head Phantom (5GHz)

## 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
2021-11-19	750 MHz	5.65	8.68	5.52	8.6	-2.30%	-0.92%
2021-11-20	750 MHz	5.65	8.68	5.64	8.4	-0.18%	-3.23%
2021-11-21	835 MHz	6.24	9.63	6.36	9.44	1.92%	-1.97%
2021-11-22	835 MHz	6.24	9.63	6.28	9.6	0.64%	-0.31%
2021-11-23	1750 MHz	19.4	36.9	19.28	35.76	-0.62%	-3.09%
2021-11-24	1750 MHz	19.4	36.9	19.2	36.12	-1.03%	-2.11%
2021-11-25	1900 MHz	20.9	40.1	20.92	39.36	0.10%	-1.85%
2021-11-26	1900 MHz	20.9	40.1	20.48	39.4	-2.01%	-1.75%
2021-11-27	2450 MHz	24.9	53.3	24.56	53.12	-1.37%	-0.34%
2021-11-28	2600 MHz	25.5	57.1	25.76	56	1.02%	-1.93%
2021-11-29	2600 MHz	25.5	57.1	25.24	57	-1.02%	-0.18%
2021-11-30	5250 MHz	22.8	79.4	22.5	78.8	-1.32%	-0.76%
2021-12-1	5600 MHz	23.4	82.7	24.3	84.7	3.85%	2.42%
2021-12-2	5750 MHz	22.3	78.8	22.5	77.8	0.90%	-1.27%
2021-12-3	3500 MHz	25.2	67.3	24.5	65.7	-2.78%	-2.38%
2021-12-3	3800 MHz	24	65.4	23.1	63.8	-3.75%	-2.45%

## 9 Measurement Procedures

### 9.1 Tests to be performed

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

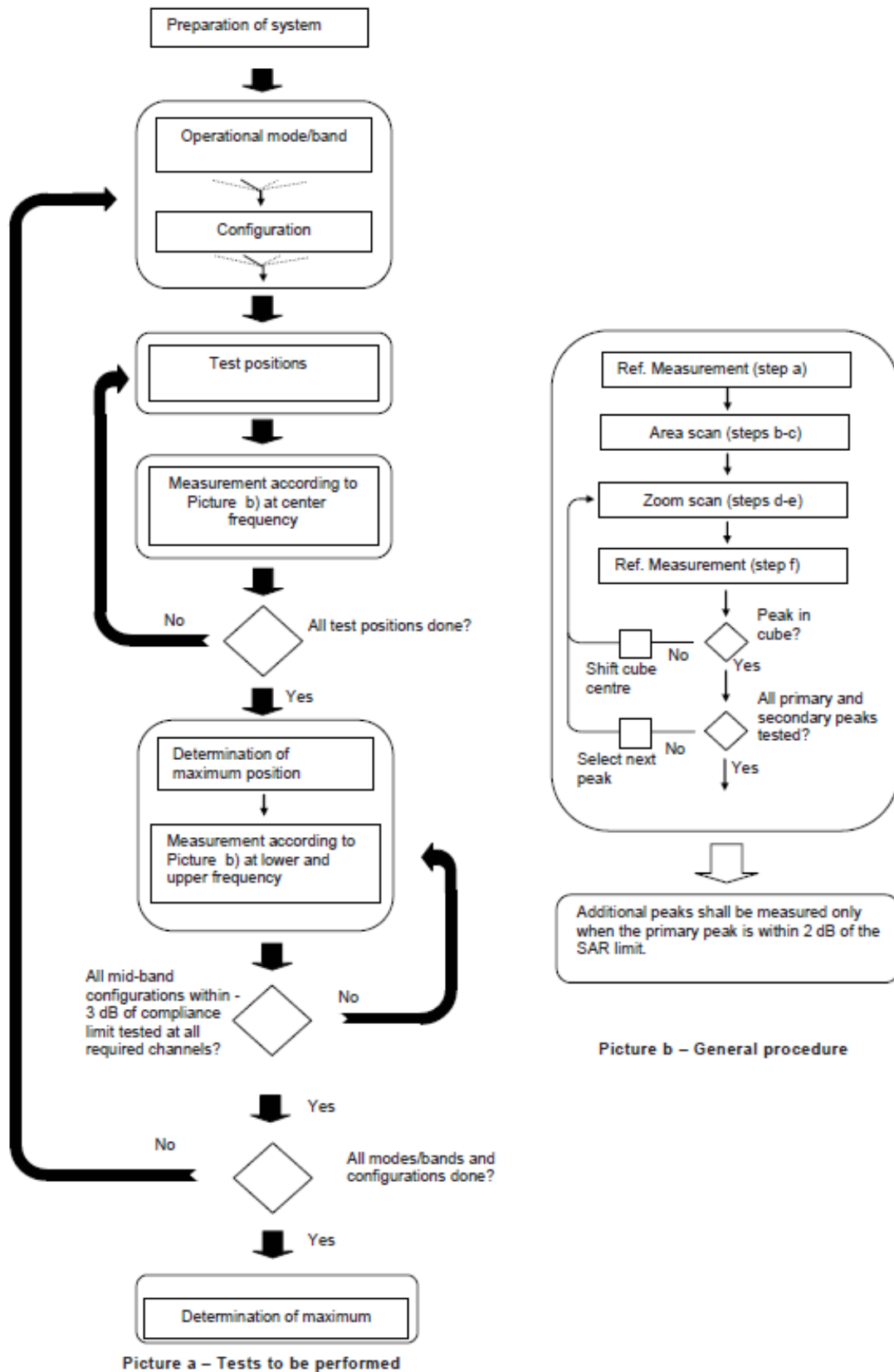
**Step 1:** The tests described in 9.2 shall be performed at the channel that is closest to the centre of the transmit frequency band ( $f_c$ ) for:

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

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

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

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



Picture 9.1 Block diagram of the tests to be performed

## 9.2 General Measurement Procedure

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

		$\leq 3$ GHz	$> 3$ GHz	
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface		$5 \pm 1$ mm	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5$ mm	
Maximum probe angle from probe axis to phantom surface normal at the measurement location		$30^\circ \pm 1^\circ$	$20^\circ \pm 1^\circ$	
Maximum area scan spatial resolution: $\Delta x_{Area}, \Delta y_{Area}$		$\leq 2$ GHz: $\leq 15$ mm 2 – 3 GHz: $\leq 12$ mm	3 – 4 GHz: $\leq 12$ mm 4 – 6 GHz: $\leq 10$ mm	
		When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be $\leq$ the corresponding x or y dimension of the test device with at least one measurement point on the test device.		
Maximum zoom scan spatial resolution: $\Delta x_{Zoom}, \Delta y_{Zoom}$		$\leq 2$ GHz: $\leq 8$ mm 2 – 3 GHz: $\leq 5$ mm*	3 – 4 GHz: $\leq 5$ mm* 4 – 6 GHz: $\leq 4$ mm*	
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$	$\leq 5$ mm	3 – 4 GHz: $\leq 4$ mm 4 – 5 GHz: $\leq 3$ mm 5 – 6 GHz: $\leq 2$ mm	
	graded grid	$\Delta z_{Zoom}(1)$ : between 1 <sup>st</sup> two points closest to phantom surface	$\leq 4$ mm	3 – 4 GHz: $\leq 3$ mm 4 – 5 GHz: $\leq 2.5$ mm 5 – 6 GHz: $\leq 2$ mm
		$\Delta z_{Zoom}(n>1)$ : between subsequent points	$\leq 1.5 \cdot \Delta z_{Zoom}(n-1)$	
Minimum zoom scan volume	x, y, z	$\geq 30$ mm	3 – 4 GHz: $\geq 28$ mm 4 – 5 GHz: $\geq 25$ mm 5 – 6 GHz: $\geq 22$ mm	
Note: $\delta$ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details. * When zoom scan is required and the <i>reported</i> SAR from the area scan based 1-g SAR estimation procedures of KDB 447498 is $\leq 1.4$ W/kg, $\leq 8$ mm, $\leq 7$ mm and $\leq 5$ mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.				

### 9.3 WCDMA Measurement Procedures for SAR

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

#### For Release 5 HSDPA Data Devices:

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

#### For Release 6 HSPA Data Devices

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

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

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



## 9.4 SAR Measurement for LTE

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

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

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

### 1) QPSK with 1 RB allocation

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

### 2) QPSK with 50% RB allocation

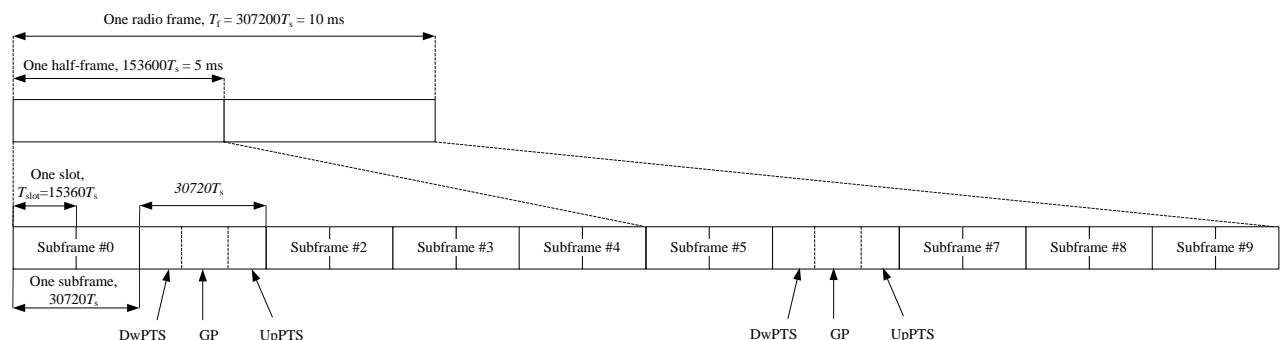
The procedures required for 1 RB allocation in 1) are applied to measure the SAR for QPSK with 50% RB allocation.

### 3) QPSK with 100% RB allocation

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

## TDD test:

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



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

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

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

**Table 9.2: Uplink-downlink configurations**

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

Duty factor is calculated by:

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

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

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

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

## 9.6 Power Drift

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

## 10 Area Scan Based 1-g SAR

### 10.1 Requirement of KDB

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

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

### 10.2 Fast SAR Algorithms

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

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

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

Both algorithms are implemented in DASY software.

## 11 Conducted Output Power

### 1. WWAN part transmit power reduce process

Mobile Gravity Sensor (G-sensor) periodically detect mobile's state, when G-sensor detects mobile as static state, mobile's transmit power remain as maximum (max or normal), when G-sensor detects mobile as moving state, mobile's transmit power reduce process follow below strategy:

- Sar\_settings1 (body 0/15mm): Receiver off, Hotspot off
- Sar\_settings2 (body 10mm): Receiver off, Hotspot on
- Sar\_settings3 (head): Receiver on, Hotspot off/on

Note that, when mobile is in "static" state, the detection frequency is 200ms. When mobile is in "dynamic" state, the detection frequency is 30s. The detail of G-sensor is presented in Annex I.

**Table11-1: Summary of Receiver detection mechanism-WWAN**

Antenna	Receiver on (Head scenario - Standalone)	Receiver on (Head scenario – Under ENDC/UL CA)	Receiver off (Body scenario - standalone)	Receiver off (Body scenario- Under ENDC/UL CA)
Sar_settings	3	3	1/2	1/2
Main Antenna	Power Level A1	Power Level B1	Power Level C1	Power Level D1

### 2. WLAN part transmit power reduce process follow below strategy:

- Sar\_settings1 (only Wi-Fi transmit in head mode): Receiver on, Cellular Tx off, Hotspot on/off;
- Sar\_settings2 (only Wi-Fi transmit in body 10/0/15mm mode): Receiver off, Cellular Tx off, Hotspot on/off;
- Sar\_settings3 (Cellular and Wi-Fi transmit simultaneously in head mode): Receiver on, Cellular Tx on, Hotspot on/off;
- Sar\_settings4 (Cellular and Wi-Fi transmit simultaneously in body 10/0/15mm mode): Receiver off, Cellular Tx on, Hotspot on/off;

**Table11-2: Summary of Receiver detection mechanism-WIFI**

Antenna	Receiver on- Transmit alone (Head scenario)	Receiver on- Transmit with WWAN (Head scenario)	Receiver off- Transmit alone (Body scenario)	Receiver off- Transmit with WWAN (Body scenario)
Sar_settings	3	3	1/2	1/2
WIFI Antenna	Power Level A1	Power Level B1	Power Level C1	Power Level D1

## 11.1 GSM Measurement result

**Table 11.1-1: The conducted power measurement results–GSM850**

**Power Level A1/C1**

GSM 850 Speech (GMSK)	Measured timeslot-averaged output power (dBm)			Tune up	calculation	Source-based time-averaged output power (dBm)		
	251	190	128			251	190	128
1 Txslot	31.61	31.65	31.60	33.30	/	/	/	/
GSM 850 GPRS (GMSK)	Measured timeslot-averaged output power (dBm)				calculation	Source-based time-averaged output power (dBm)		
	251	190	128			251	190	128
1 Txslot	31.69	31.69	31.66	32.50	-9.03	22.66	22.66	22.63
<b>2 Txslots</b>	29.20	29.20	29.16	29.30	-6.02	23.18	23.18	23.14
3Txslots	27.16	27.15	27.11	28.00	-4.26	22.90	22.89	22.85
4 Txslots	26.01	26.02	26.00	27.00	-3.01	23.00	23.01	22.99
GSM 850 EGPRS (GMSK)	Measured timeslot-averaged output power (dBm)				calculation	Source-based time-averaged output power (dBm)		
	251	190	128			251	190	128
1 Txslot	31.62	31.63	31.61	32.50	-9.03	22.59	22.60	22.58
<b>2 Txslots</b>	29.13	29.13	29.10	29.30	-6.02	23.11	23.11	23.08
3Txslots	27.09	27.08	27.05	28.00	-4.26	22.83	22.82	22.79
4 Txslots	25.94	25.96	25.94	27.00	-3.01	22.93	22.95	22.93
GSM 850 EGPRS (8PSK)	Measured timeslot-averaged output power (dBm)				calculation	Source-based time-averaged output power (dBm)		
	251	190	128			251	190	128
1 Txslot	26.34	26.66	26.45	28.00	-9.03	17.31	17.63	17.42
2 Txslots	25.35	25.11	25.07	26.00	-6.02	19.33	19.09	19.05
3Txslots	22.79	22.72	22.69	23.50	-4.26	18.53	18.46	18.43
4 Txslots	21.46	21.46	21.45	22.00	-3.01	18.45	18.45	18.44

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 2Txslots for GSM850.**

**Table 11.1-2: The conducted power measurement results-GSM1900  
Power Level A1/C1**

PCS1900 Speech (GMSK)	Measured timeslot-averaged output power (dBm)			Tune up	calculation	Source-based time-averaged output power (dBm)		
	810	661	512			810	661	512
1 Txslot	26.26	26.29	26.30	27.50	/	/	/	/
PCS1900 GPRS (GMSK)	Measured timeslot-averaged output power (dBm)				calculation	Source-based time-averaged output power (dBm)		
	810	661	512			810	661	512
<b>1 Txslot</b>	26.26	26.28	26.32	27.50	-9.03	17.23	17.25	17.29
2 Txslots	23.18	23.22	23.28	24.50	-6.02	17.16	17.20	17.26
3 Txslots	21.15	21.20	21.27	22.50	-4.26	16.89	16.94	17.01
4 Txslots	20.15	20.22	20.25	21.00	-3.01	17.14	17.21	17.24
PCS1900 EGPRS (GMSK)	Measured timeslot-averaged output power (dBm)				calculation	Source-based time-averaged output power (dBm)		
	810	661	512			810	661	512
<b>1 Txslot</b>	26.27	26.30	26.32	27.50	-9.03	17.24	17.27	17.29
2 Txslots	23.19	23.24	23.27	24.50	-6.02	17.17	17.22	17.25
3Txslots	21.16	21.22	21.26	22.50	-4.26	16.90	16.96	17.00
4 Txslots	20.16	20.24	20.26	21.00	-3.01	17.15	17.23	17.25
PCS1900 EGPRS (8PSK)	Measured timeslot-averaged output power (dBm)				calculation	Source-based time-averaged output power (dBm)		
	810	661	512			810	661	512
1 Txslot	25.22	25.25	25.26	27.20	-9.03	16.19	16.22	16.23
2 Txslots	24.09	24.03	24.03	24.50	-6.02	18.07	18.01	18.01
3Txslots	21.70	21.72	21.64	22.00	-4.26	17.44	17.46	17.38
4 Txslots	20.35	20.20	20.06	21.00	-3.01	17.34	17.19	17.05

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 1Txslots for GSM1900.**

## 11.2 WCDMA Measurement result

Table 11.2-1: The conducted Power for WCDMA B2/B4-Power Level A1

WCDMA1900	Band	FDDII result (dBm)			Tune up
	ARFCN	9538/9938 (1907.6MHz)	9400/9800 (1880MHz)	9262/9662 (1852.4MHz)	
	/	19.12	19.08	19.05	19.30
HSUPA	1	16.12	16.05	16.07	18.00
	2	16.06	16.01	16.04	17.00
	3	17.12	17.11	17.07	18.00
	4	16.33	16.00	16.01	17.00
	5	17.14	17.12	17.10	18.00
HSPA+(16QAM)	/	17.74	17.60	17.59	18.00
DC-HSDPA	1	18.08	18.03	18.02	19.00
	2	18.10	18.05	18.04	19.00
	3	17.65	17.60	17.58	19.00
	4	17.64	17.61	17.58	19.00

WCDMA1700	Band	FDDIV result (dBm)			Tune up
	ARFCN	1513/1738 (1752.6MHz)	1412/1637 (1732.4MHz)	1312/1537 (1712.4MHz)	
	/	19.31	19.29	19.28	20.00
HSUPA	1	16.17	16.15	16.17	18.00
	2	16.33	16.29	15.91	17.00
	3	16.31	17.38	16.36	18.00
	4	15.91	15.89	15.93	17.00
	5	17.30	17.37	17.35	18.00
HSPA+(16QAM)	/	17.88	17.90	17.95	18.00
DC-HSDPA	1	18.32	18.34	18.40	19.00
	2	18.31	18.35	18.38	19.00
	3	17.95	17.98	18.00	19.00
	4	17.94	18.00	18.01	19.00



Table 11.2-2: The conducted Power for WCDMA B2/B4-Power Level C1

WCDMA1900	Band	FDDII result (dBm)			Tune up
	ARFCN	9538/9938	9400/9800	9262/9662	
		(1907.6MHz)	(1880MHz)	(1852.4MHz)	
	/	20.16	20.11	20.09	20.50
HSUPA	1	17.55	17.50	17.48	19.00
	2	17.19	17.11	17.12	18.00
	3	17.20	17.12	17.13	19.00
	4	16.70	16.65	16.64	18.00
	5	18.16	18.13	18.12	19.00
HSPA+(16QAM)	/	18.69	18.64	18.55	19.00
DC-HSDPA	1	18.21	18.25	18.26	20.00
	2	18.20	18.24	18.28	20.00
	3	18.02	18.03	18.05	20.00
	4	18.07	18.03	18.07	20.00

WCDMA1700	Band	FDDIV result (dBm)			Tune up
	ARFCN	1513/1738	1412/1637	1312/1537	
		(1752.6MHz)	(1732.4MHz)	(1712.4MHz)	
	/	20.34	20.31	20.32	21.00
HSUPA	1	17.25	17.23	17.28	19.00
	2	17.39	17.39	17.38	18.00
	3	17.40	17.38	17.45	19.00
	4	16.92	16.90	16.95	18.00
	5	18.42	18.40	18.45	19.00
HSPA+(16QAM)	/	18.84	18.84	18.99	19.00
DC-HSDPA	1	18.40	18.38	18.39	20.00
	2	18.41	18.39	18.40	20.00
	3	17.90	17.88	17.89	20.00
	4	17.91	17.89	17.90	20.00

Table 11.2-3: The conducted Power for WCDMA B5-Power Level A1/C1

WCDMA850	Band	FDDV result (dBm)			Tune up
	ARFCN	4233/4458	4183/4408	4132/4357	
		(846.6MHz)	(836.6MHz)	(826.4MHz)	
	/	23.66	23.59	23.65	24.00
HSUPA	1	20.94	20.57	20.62	22.00
	2	20.54	20.56	20.62	21.00
	3	20.60	20.63	20.66	22.00
	4	20.11	20.09	20.16	21.00
	5	21.56	21.59	21.63	22.00
HSPA+(16QAM)	/	21.98	21.95	21.97	22.00
DC-HSDPA	1	21.66	21.79	21.83	23.00
	2	21.73	21.76	21.79	23.00
	3	21.24	21.36	21.38	23.00
	4	21.26	21.38	21.40	23.00

### 11.3 LTE Measurement result

#### Maximum Target Power for Production Unit – Power Level A1/B1/C1/D1

Band	Tune up (dBm)			
	Receiver on (head scenario - Standalone)	Receiver on (head scenario – Under ENDC/UL CA)	Receiver off (Body scenario - standalone)	Receiver off (Body scenario- Under ENDC/UL CA)
	Level A1	Level B1	Level C1	Level D1
Band 2(ANT2)	20.4	16.5	21.4	18.5
Band 2(ANT1)	/	24	/	19
Band 7	22	/	20	/
Band 12	24	21	24	24
Band 13	23.5	/	23.5	/
Band 25	20.5	/	21.5	/
Band 26	22.5	/	25	/
Band 41-PC3	24	/	24	/
Band 41-PC2	26.2	/	26.2	/
Band 66(ANT2)	21	19.6	22	22
Band 66(ANT1)	/	24	/	21
Band 71	25	/	25	/

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

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

LTE B2 ANT2-Power Level A1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	64QAM
1.4MHz	1RB-High (5)	1909.3 (19193)	20.21	20.04	19.88
		1880 (18900)	19.89	20.12	20.23
		1850.7 (18607)	19.95	20.20	20.00
	1RB-Middle (3)	1909.3 (19193)	20.23	20.20	20.40
		1880 (18900)	20.22	20.21	20.29
		1850.7 (18607)	20.05	20.36	20.06
	1RB-Low (0)	1909.3 (19193)	20.25	20.13	20.09
		1880 (18900)	20.23	19.99	20.02
		1850.7 (18607)	20.07	20.21	20.15
	3RB-High (3)	1909.3 (19193)	20.29	19.86	19.86
		1880 (18900)	20.35	20.37	20.04
		1850.7 (18607)	20.25	19.86	20.20
	3RB-Middle (1)	1909.3 (19193)	19.95	19.84	20.21
		1880 (18900)	19.93	20.17	19.99
		1850.7 (18607)	20.02	20.19	20.10
	3RB-Low (0)	1909.3 (19193)	20.19	20.08	20.38
		1880 (18900)	20.18	19.99	20.36
		1850.7 (18607)	20.12	20.05	19.87
	6RB (0)	1909.3 (19193)	20.29	20.21	20.13
		1880 (18900)	20.13	20.27	19.95
		1850.7 (18607)	20.04	19.78	20.28
3MHz	1RB-High (14)	1908.5 (19185)	20.04	20.22	20.19
		1880 (18900)	20.07	20.35	19.91
		1851.5 (18615)	19.89	20.33	20.03
	1RB-Middle (7)	1908.5 (19185)	19.88	20.09	20.14
		1880 (18900)	19.96	20.23	20.10
		1851.5 (18615)	20.04	20.54	20.17
	1RB-Low (0)	1908.5 (19185)	19.94	20.15	20.14
		1880 (18900)	20.03	20.23	20.35
		1851.5 (18615)	20.06	20.35	20.09
	8RB-High (7)	1908.5 (19185)	20.26	19.82	19.97
		1880 (18900)	20.00	20.07	20.27
		1851.5 (18615)	20.18	20.19	20.25
	8RB-Middle (4)	1908.5 (19185)	20.14	20.25	20.06
		1880 (18900)	20.24	20.14	19.94
		1851.5 (18615)	20.29	20.01	20.26
	8RB-Low (0)	1908.5 (19185)	20.25	20.23	20.00
		1880 (18900)	20.42	20.12	20.36
		1851.5 (18615)	19.80	19.80	19.88
	15RB (0)	1908.5 (19185)	20.25	19.99	19.94
		1880 (18900)	20.05	19.93	20.29
		1851.5 (18615)	19.77	19.74	19.94

5MHz	1RB-High (24)	1907.5 (19175)	20.12	20.06	20.04	
		1880 (18900)	20.00	20.49	20.15	
		1852.5 (18625)	19.93	20.39	20.13	
	1RB-Middle (12)	1907.5 (19175)	20.25	20.11	19.92	
		1880 (18900)	20.38	20.70	20.13	
		1852.5 (18625)	19.95	20.28	20.13	
	1RB-Low (0)	1907.5 (19175)	19.80	20.17	20.20	
		1880 (18900)	19.82	20.14	20.05	
		1852.5 (18625)	20.18	20.25	20.24	
	12RB-High (13)	1907.5 (19175)	19.86	20.00	20.27	
		1880 (18900)	20.20	20.13	20.04	
		1852.5 (18625)	19.94	19.99	19.96	
	12RB-Middle (6)	1907.5 (19175)	19.88	20.31	19.89	
		1880 (18900)	20.07	20.10	20.12	
		1852.5 (18625)	20.09	20.28	20.30	
	12RB-Low (0)	1907.5 (19175)	20.01	20.15	20.33	
		1880 (18900)	19.94	20.36	20.24	
		1852.5 (18625)	20.08	19.92	19.98	
	25RB (0)	1907.5 (19175)	19.82	20.06	19.94	
		1880 (18900)	20.15	20.03	20.10	
		1852.5 (18625)	19.84	20.13	20.24	
	10MHz	1RB-High (49)	1905 (19150)	19.88	20.40	19.90
			1880 (18900)	20.23	20.47	20.08
			1855 (18650)	20.07	20.28	20.14
1RB-Middle (24)		1905 (19150)	19.99	20.09	20.12	
		1880 (18900)	20.00	20.38	20.12	
		1855 (18650)	20.06	20.54	20.15	
1RB-Low (0)		1905 (19150)	19.96	20.23	20.07	
		1880 (18900)	19.99	20.30	20.22	
		1855 (18650)	20.22	20.36	20.05	
25RB-High (25)		1905 (19150)	19.91	19.97	19.96	
		1880 (18900)	19.89	19.90	20.06	
		1855 (18650)	19.87	20.24	20.12	
25RB-Middle (12)		1905 (19150)	19.99	19.87	20.05	
		1880 (18900)	20.23	19.86	20.04	
		1855 (18650)	20.06	19.92	20.06	
25RB-Low (0)		1905 (19150)	20.12	20.17	20.02	
		1880 (18900)	19.98	20.30	20.24	
		1855 (18650)	19.80	19.89	20.30	
50RB (0)		1905 (19150)	20.24	20.24	19.86	
		1880 (18900)	20.23	20.03	19.95	
		1855 (18650)	20.16	19.91	19.95	

15MHz	1RB-High (74)	1902.5 (19125)	19.94	20.02	20.20	
		1880 (18900)	19.97	20.17	20.33	
		1857.5 (18675)	19.88	20.12	20.15	
	1RB-Middle (37)	1902.5 (19125)	19.90	20.34	20.08	
		1880 (18900)	19.90	20.22	20.39	
		1857.5 (18675)	19.95	20.34	20.05	
	1RB-Low (0)	1902.5 (19125)	19.86	20.15	20.20	
		1880 (18900)	20.12	20.08	19.99	
		1857.5 (18675)	19.85	20.27	20.00	
	36RB-High (38)	1902.5 (19125)	20.04	19.97	19.98	
		1880 (18900)	19.89	20.02	19.89	
		1857.5 (18675)	19.91	20.13	20.10	
	36RB-Middle (19)	1902.5 (19125)	20.05	20.18	20.34	
		1880 (18900)	20.29	20.23	19.92	
		1857.5 (18675)	19.98	20.01	19.88	
	36RB-Low (0)	1902.5 (19125)	20.08	19.93	20.35	
		1880 (18900)	20.31	20.29	19.86	
		1857.5 (18675)	20.10	19.87	20.27	
	75RB (0)	1902.5 (19125)	20.08	19.91	20.08	
		1880 (18900)	20.32	19.85	20.06	
		1857.5 (18675)	19.80	19.82	20.02	
	20MHz	1RB-High (99)	1900 (19100)	20.08	20.28	20.16
			1880 (18900)	20.10	20.42	20.17
			1860 (18700)	19.99	20.25	20.12
1RB-Middle (50)		1900 (19100)	20.07	20.21	20.20	
		1880 (18900)	20.20	20.50	20.24	
		1860 (18700)	20.08	20.36	20.17	
1RB-Low (0)		1900 (19100)	20.06	20.37	20.24	
		1880 (18900)	20.04	20.28	20.21	
		1860 (18700)	20.04	20.35	20.17	
50RB-High (50)		1900 (19100)	20.10	20.10	20.11	
		1880 (18900)	20.17	20.17	20.19	
		1860 (18700)	20.10	20.09	20.06	
50RB-Middle (25)		1900 (19100)	20.11	20.12	20.16	
		1880 (18900)	20.19	20.14	20.17	
		1860 (18700)	20.10	20.08	20.13	
50RB-Low (0)		1900 (19100)	20.20	20.19	20.21	
		1880 (18900)	20.22	20.17	20.16	
		1860 (18700)	20.07	20.08	20.11	
100RB (0)		1900 (19100)	20.12	20.13	20.09	
		1880 (18900)	20.19	20.13	20.13	
		1860 (18700)	20.04	20.02	20.08	

LTE B2 ANT2-Power Level B1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	64QAM
1.4MHz	1RB-High (5)	1909.3 (19193)	15.86	16.13	16.02
		1880 (18900)	15.87	16.09	16.10
		1850.7 (18607)	15.90	16.09	16.09
	1RB-Middle (3)	1909.3 (19193)	15.89	16.18	15.99
		1880 (18900)	15.88	16.23	16.10
		1850.7 (18607)	15.91	16.10	16.01
	1RB-Low (0)	1909.3 (19193)	15.84	16.04	16.01
		1880 (18900)	15.90	16.13	16.13
		1850.7 (18607)	15.91	16.20	16.09
	3RB-High (3)	1909.3 (19193)	15.88	15.88	15.98
		1880 (18900)	15.90	15.92	15.98
		1850.7 (18607)	15.92	15.97	16.00
	3RB-Middle (1)	1909.3 (19193)	15.87	15.85	16.00
		1880 (18900)	15.96	15.96	16.04
		1850.7 (18607)	15.93	15.95	16.00
	3RB-Low (0)	1909.3 (19193)	15.91	15.85	16.02
		1880 (18900)	15.95	15.86	16.03
		1850.7 (18607)	15.93	15.96	16.00
	6RB (0)	1909.3 (19193)	15.90	15.95	15.85
		1880 (18900)	15.94	15.97	15.92
		1850.7 (18607)	15.92	16.02	15.90
3MHz	1RB-High (14)	1908.5 (19185)	15.83	16.14	15.93
		1880 (18900)	15.90	16.15	16.07
		1851.5 (18615)	15.94	16.17	16.12
	1RB-Middle (7)	1908.5 (19185)	15.93	16.17	15.97
		1880 (18900)	15.94	16.10	16.05
		1851.5 (18615)	15.88	16.18	16.08
	1RB-Low (0)	1908.5 (19185)	15.88	16.06	16.02
		1880 (18900)	15.89	16.20	16.07
		1851.5 (18615)	15.89	16.13	16.07
	8RB-High (7)	1908.5 (19185)	15.85	15.92	15.91
		1880 (18900)	15.90	15.95	15.94
		1851.5 (18615)	15.89	15.99	15.95
	8RB-Middle (4)	1908.5 (19185)	15.85	15.95	15.90
		1880 (18900)	15.84	16.02	15.94
		1851.5 (18615)	15.88	15.99	15.95
	8RB-Low (0)	1908.5 (19185)	15.91	15.95	15.89
		1880 (18900)	15.91	15.96	15.98
		1851.5 (18615)	15.91	15.96	15.97
	15RB (0)	1908.5 (19185)	15.86	15.89	15.83
		1880 (18900)	15.83	15.88	15.92
		1851.5 (18615)	15.89	15.92	15.97

5MHz	1RB-High (24)	1907.5 (19175)	15.92	16.02	16.08	
		1880 (18900)	15.96	16.22	16.09	
		1852.5 (18625)	15.96	16.11	16.08	
	1RB-Middle (12)	1907.5 (19175)	15.92	16.15	16.01	
		1880 (18900)	16.00	16.14	16.11	
		1852.5 (18625)	16.03	16.21	16.15	
	1RB-Low (0)	1907.5 (19175)	15.93	16.13	16.07	
		1880 (18900)	15.94	16.18	16.04	
		1852.5 (18625)	15.94	16.23	16.11	
	12RB-High (13)	1907.5 (19175)	15.91	15.91	15.93	
		1880 (18900)	15.92	15.95	15.96	
		1852.5 (18625)	15.91	15.89	16.00	
	12RB-Middle (6)	1907.5 (19175)	15.90	15.89	15.97	
		1880 (18900)	16.00	15.97	16.01	
		1852.5 (18625)	15.97	15.92	15.97	
	12RB-Low (0)	1907.5 (19175)	15.91	15.93	15.95	
		1880 (18900)	16.01	15.96	16.01	
		1852.5 (18625)	15.94	15.94	15.98	
	25RB (0)	1907.5 (19175)	15.91	15.94	15.95	
		1880 (18900)	15.98	15.97	15.98	
		1852.5 (18625)	15.95	15.94	15.96	
	10MHz	1RB-High (49)	1905 (19150)	15.88	16.14	16.03
			1880 (18900)	15.91	16.17	16.01
			1855 (18650)	15.89	16.13	16.04
1RB-Middle (24)		1905 (19150)	15.91	16.19	16.08	
		1880 (18900)	15.96	16.22	16.06	
		1855 (18650)	15.93	16.24	16.06	
1RB-Low (0)		1905 (19150)	15.90	16.14	15.99	
		1880 (18900)	15.94	16.19	16.10	
		1855 (18650)	15.93	16.12	16.07	
25RB-High (25)		1905 (19150)	15.88	15.94	15.93	
		1880 (18900)	15.94	15.92	15.94	
		1855 (18650)	15.95	15.95	15.98	
25RB-Middle (12)		1905 (19150)	15.88	15.88	15.86	
		1880 (18900)	15.92	15.96	15.95	
		1855 (18650)	15.95	15.97	15.96	
25RB-Low (0)		1905 (19150)	15.95	16.00	15.99	
		1880 (18900)	15.97	16.00	16.01	
		1855 (18650)	15.93	15.96	15.95	
50RB (0)		1905 (19150)	15.93	15.94	15.98	
		1880 (18900)	15.97	16.00	15.94	
		1855 (18650)	15.94	16.00	15.97	



15MHz	1RB-High (74)	1902.5 (19125)	15.83	16.01	15.97	
		1880 (18900)	15.88	16.02	15.96	
		1857.5 (18675)	15.93	16.21	16.05	
	1RB-Middle (37)	1902.5 (19125)	15.90	16.18	16.06	
		1880 (18900)	15.94	16.11	16.09	
		1857.5 (18675)	15.94	16.30	16.13	
	1RB-Low (0)	1902.5 (19125)	15.86	16.01	16.04	
		1880 (18900)	15.93	16.17	16.03	
		1857.5 (18675)	15.89	16.14	16.05	
	36RB-High (38)	1902.5 (19125)	15.92	15.85	15.93	
		1880 (18900)	15.94	15.88	15.92	
		1857.5 (18675)	15.89	15.92	15.94	
	36RB-Middle (19)	1902.5 (19125)	15.93	15.94	15.94	
		1880 (18900)	15.90	15.96	16.00	
		1857.5 (18675)	15.90	15.94	15.96	
	36RB-Low (0)	1902.5 (19125)	15.92	15.94	15.97	
		1880 (18900)	16.00	15.97	16.03	
		1857.5 (18675)	15.87	15.88	15.94	
	75RB (0)	1902.5 (19125)	15.92	15.87	15.87	
		1880 (18900)	15.93	15.94	15.93	
		1857.5 (18675)	15.95	15.90	15.91	
	20MHz	1RB-High (99)	1900 (19100)	15.85	16.03	15.91
			1880 (18900)	15.87	16.13	15.95
			1860 (18700)	15.92	16.15	16.03
		1RB-Middle (50)	1900 (19100)	15.95	16.20	16.01
			1880 (18900)	16.11	16.16	16.03
			1860 (18700)	15.94	8.94	16.04
1RB-Low (0)		1900 (19100)	15.88	15.98	15.93	
		1880 (18900)	15.91	16.17	16.04	
		1860 (18700)	15.88	16.13	16.00	
50RB-High (50)		1900 (19100)	15.89	15.90	15.86	
		1880 (18900)	15.95	15.97	15.92	
		1860 (18700)	15.96	15.94	15.97	
50RB-Middle (25)		1900 (19100)	15.97	15.94	15.95	
		1880 (18900)	15.97	15.99	15.96	
		1860 (18700)	15.99	15.97	15.98	
50RB-Low (0)		1900 (19100)	15.95	15.99	15.95	
		1880 (18900)	16.09	16.09	16.05	
		1860 (18700)	15.94	15.92	15.88	
100RB (0)		1900 (19100)	15.92	15.87	15.86	
		1880 (18900)	16.00	15.98	15.97	
		1860 (18700)	15.88	15.91	15.91	

LTE B2 ANT2-Power Level C1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	64QAM
1.4MHz	1RB-High (5)	1909.3 (19193)	20.91	20.97	21.12
		1880 (18900)	20.84	21.22	21.02
		1850.7 (18607)	20.81	21.03	20.93
	1RB-Middle (3)	1909.3 (19193)	20.97	21.15	20.90
		1880 (18900)	21.03	21.40	21.11
		1850.7 (18607)	20.83	21.02	21.07
	1RB-Low (0)	1909.3 (19193)	20.90	21.20	20.94
		1880 (18900)	20.80	21.24	21.05
		1850.7 (18607)	20.92	21.02	21.02
	3RB-High (3)	1909.3 (19193)	21.02	20.96	20.78
		1880 (18900)	21.09	21.06	20.87
		1850.7 (18607)	21.07	20.80	21.11
	3RB-Middle (1)	1909.3 (19193)	21.01	21.00	20.84
		1880 (18900)	20.99	20.98	20.98
		1850.7 (18607)	20.80	20.78	20.85
	3RB-Low (0)	1909.3 (19193)	21.13	21.00	20.92
		1880 (18900)	20.86	21.11	21.17
		1850.7 (18607)	20.95	20.73	20.78
	6RB (0)	1909.3 (19193)	20.83	20.93	20.87
		1880 (18900)	20.98	20.81	20.91
		1850.7 (18607)	20.75	20.80	21.01
3MHz	1RB-High (14)	1908.5 (19185)	20.65	21.09	21.08
		1880 (18900)	20.83	21.14	21.10
		1851.5 (18615)	20.69	21.20	20.86
	1RB-Middle (7)	1908.5 (19185)	20.82	21.19	21.12
		1880 (18900)	20.99	21.12	21.21
		1851.5 (18615)	20.91	21.00	21.12
	1RB-Low (0)	1908.5 (19185)	20.74	20.89	20.96
		1880 (18900)	20.93	20.96	20.84
		1851.5 (18615)	20.88	21.26	20.99
	8RB-High (7)	1908.5 (19185)	20.70	20.96	20.97
		1880 (18900)	21.01	21.02	20.94
		1851.5 (18615)	20.95	20.84	21.06
	8RB-Middle (4)	1908.5 (19185)	20.77	20.86	20.82
		1880 (18900)	21.11	21.07	20.86
		1851.5 (18615)	20.95	20.93	20.77
	8RB-Low (0)	1908.5 (19185)	20.97	21.01	21.07
		1880 (18900)	20.94	20.99	21.15
		1851.5 (18615)	20.97	20.98	20.93
	15RB (0)	1908.5 (19185)	20.78	20.83	20.99
		1880 (18900)	20.88	21.12	20.82
		1851.5 (18615)	20.84	20.83	20.89

5MHz	1RB-High (24)	1907.5 (19175)	20.77	21.02	20.87	
		1880 (18900)	20.85	21.18	20.87	
		1852.5 (18625)	20.78	20.92	20.89	
	1RB-Middle (12)	1907.5 (19175)	20.89	21.24	20.95	
		1880 (18900)	21.01	21.23	21.24	
		1852.5 (18625)	20.95	21.18	20.98	
	1RB-Low (0)	1907.5 (19175)	20.73	21.00	21.19	
		1880 (18900)	20.94	21.12	21.01	
		1852.5 (18625)	20.75	21.10	20.85	
	12RB-High (13)	1907.5 (19175)	21.00	20.87	20.79	
		1880 (18900)	21.11	20.95	20.87	
		1852.5 (18625)	20.76	20.94	20.91	
	12RB-Middle (6)	1907.5 (19175)	20.81	20.86	21.08	
		1880 (18900)	20.81	20.84	21.00	
		1852.5 (18625)	20.96	20.75	20.78	
	12RB-Low (0)	1907.5 (19175)	20.97	20.87	20.91	
		1880 (18900)	20.91	21.07	21.16	
		1852.5 (18625)	20.99	20.99	21.05	
	25RB (0)	1907.5 (19175)	20.95	20.82	21.12	
		1880 (18900)	20.98	21.06	20.92	
		1852.5 (18625)	20.98	20.77	20.70	
	10MHz	1RB-High (49)	1905 (19150)	20.88	21.14	20.97
			1880 (18900)	21.01	21.03	21.04
			1855 (18650)	20.76	20.98	20.91
1RB-Middle (24)		1905 (19150)	20.82	21.26	20.90	
		1880 (18900)	20.87	21.18	20.98	
		1855 (18650)	20.93	21.00	21.20	
1RB-Low (0)		1905 (19150)	20.91	21.10	20.96	
		1880 (18900)	20.73	21.18	20.83	
		1855 (18650)	20.70	20.99	20.98	
25RB-High (25)		1905 (19150)	20.77	20.95	20.92	
		1880 (18900)	21.11	20.96	21.07	
		1855 (18650)	20.99	20.90	21.05	
25RB-Middle (12)		1905 (19150)	20.84	21.11	21.06	
		1880 (18900)	20.90	20.94	20.91	
		1855 (18650)	20.99	21.07	20.81	
25RB-Low (0)		1905 (19150)	20.99	21.17	21.15	
		1880 (18900)	21.15	21.16	21.06	
		1855 (18650)	21.12	20.84	20.90	
50RB (0)		1905 (19150)	20.88	20.92	21.13	
		1880 (18900)	20.91	21.04	21.12	
		1855 (18650)	20.95	20.72	20.89	

15MHz	1RB-High (74)	1902.5 (19125)	20.79	21.11	20.94	
		1880 (18900)	20.79	20.99	21.05	
		1857.5 (18675)	20.81	20.98	20.91	
	1RB-Middle (37)	1902.5 (19125)	20.98	20.99	20.94	
		1880 (18900)	20.87	21.40	21.04	
		1857.5 (18675)	20.76	21.09	21.21	
	1RB-Low (0)	1902.5 (19125)	20.92	20.89	21.17	
		1880 (18900)	20.96	21.01	20.86	
		1857.5 (18675)	20.80	21.01	20.89	
	36RB-High (38)	1902.5 (19125)	20.86	21.03	20.96	
		1880 (18900)	20.91	21.08	20.83	
		1857.5 (18675)	20.86	20.93	20.90	
	36RB-Middle (19)	1902.5 (19125)	20.72	21.07	21.01	
		1880 (18900)	20.98	21.15	20.87	
		1857.5 (18675)	20.91	21.06	21.12	
	36RB-Low (0)	1902.5 (19125)	20.98	20.99	20.99	
		1880 (18900)	21.01	21.08	20.94	
		1857.5 (18675)	20.95	20.88	20.78	
	75RB (0)	1902.5 (19125)	20.95	20.96	21.00	
		1880 (18900)	20.79	20.85	20.96	
		1857.5 (18675)	20.65	20.99	21.03	
	20MHz	1RB-High (99)	1900 (19100)	20.95	21.18	21.11
			1880 (18900)	20.96	21.17	21.15
			1860 (18700)	20.87	21.19	21.07
1RB-Middle (50)		1900 (19100)	21.00	21.27	21.14	
		1880 (18900)	21.09	21.36	21.26	
		1860 (18700)	21.01	21.29	21.18	
1RB-Low (0)		1900 (19100)	21.01	21.19	21.19	
		1880 (18900)	20.91	21.21	21.05	
		1860 (18700)	20.98	21.21	21.12	
50RB-High (50)		1900 (19100)	20.98	21.01	21.02	
		1880 (18900)	21.06	21.07	21.13	
		1860 (18700)	21.02	21.02	21.06	
50RB-Middle (25)		1900 (19100)	21.02	21.07	21.06	
		1880 (18900)	21.08	21.13	21.11	
		1860 (18700)	21.05	21.05	21.07	
50RB-Low (0)		1900 (19100)	21.10	21.13	21.15	
		1880 (18900)	21.11	21.14	21.16	
		1860 (18700)	21.09	21.03	21.01	
100RB (0)		1900 (19100)	21.02	21.02	21.08	
		1880 (18900)	21.08	21.07	21.10	
		1860 (18700)	20.94	21.01	20.99	

LTE B2 ANT2-Power Level D1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	64QAM
1.4MHz	1RB-High (5)	1909.3 (19193)	17.79	18.09	17.99
		1880 (18900)	17.85	18.16	17.99
		1850.7 (18607)	17.82	18.16	17.96
	1RB-Middle (3)	1909.3 (19193)	17.86	18.12	17.96
		1880 (18900)	17.83	18.19	17.99
		1850.7 (18607)	17.81	18.16	17.98
	1RB-Low (0)	1909.3 (19193)	17.77	18.08	17.96
		1880 (18900)	17.83	18.06	17.98
		1850.7 (18607)	17.81	18.09	18.05
	3RB-High (3)	1909.3 (19193)	17.82	17.86	17.93
		1880 (18900)	17.85	17.91	18.00
		1850.7 (18607)	17.86	17.75	17.95
	3RB-Middle (1)	1909.3 (19193)	17.86	17.90	17.98
		1880 (18900)	17.83	17.80	17.92
		1850.7 (18607)	17.85	17.87	17.95
	3RB-Low (0)	1909.3 (19193)	17.83	17.89	17.98
		1880 (18900)	17.84	17.80	18.01
		1850.7 (18607)	17.88	17.83	17.97
	6RB (0)	1909.3 (19193)	17.87	17.96	17.83
		1880 (18900)	17.86	17.92	17.83
		1850.7 (18607)	17.87	17.97	17.85
3MHz	1RB-High (14)	1908.5 (19185)	17.78	17.99	18.00
		1880 (18900)	17.83	18.11	18.00
		1851.5 (18615)	17.75	18.13	17.89
	1RB-Middle (7)	1908.5 (19185)	17.79	18.04	18.01
		1880 (18900)	17.83	18.03	18.05
		1851.5 (18615)	17.84	18.05	18.07
	1RB-Low (0)	1908.5 (19185)	17.78	18.08	17.99
		1880 (18900)	17.81	18.10	17.99
		1851.5 (18615)	17.81	18.09	18.02
	8RB-High (7)	1908.5 (19185)	17.80	17.88	17.87
		1880 (18900)	17.83	17.90	17.90
		1851.5 (18615)	17.77	17.86	17.88
	8RB-Middle (4)	1908.5 (19185)	17.80	17.88	17.91
		1880 (18900)	17.83	17.86	17.85
		1851.5 (18615)	17.77	17.87	17.84
	8RB-Low (0)	1908.5 (19185)	17.85	17.89	17.91
		1880 (18900)	17.84	17.89	17.87
		1851.5 (18615)	17.83	17.96	17.92
	15RB (0)	1908.5 (19185)	17.79	17.85	17.83
		1880 (18900)	17.79	17.84	17.89
		1851.5 (18615)	17.78	17.85	17.81

5MHz	1RB-High (24)	1907.5 (19175)	17.81	18.14	18.00	
		1880 (18900)	17.87	18.14	18.04	
		1852.5 (18625)	17.79	18.13	18.01	
	1RB-Middle (12)	1907.5 (19175)	17.83	18.09	18.08	
		1880 (18900)	17.92	18.14	17.99	
		1852.5 (18625)	17.78	18.04	17.97	
	1RB-Low (0)	1907.5 (19175)	17.84	18.10	18.03	
		1880 (18900)	17.87	18.08	18.05	
		1852.5 (18625)	17.86	18.06	17.96	
	12RB-High (13)	1907.5 (19175)	17.83	17.83	17.84	
		1880 (18900)	17.85	17.86	17.90	
		1852.5 (18625)	17.85	17.80	17.83	
	12RB-Middle (6)	1907.5 (19175)	17.84	17.82	17.89	
		1880 (18900)	17.85	17.81	17.88	
		1852.5 (18625)	17.80	17.80	17.85	
	12RB-Low (0)	1907.5 (19175)	17.82	17.86	17.93	
		1880 (18900)	17.87	17.85	17.95	
		1852.5 (18625)	17.84	17.82	17.91	
	25RB (0)	1907.5 (19175)	17.88	17.90	17.87	
		1880 (18900)	17.90	17.95	17.89	
		1852.5 (18625)	17.79	17.88	17.86	
	10MHz	1RB-High (49)	1905 (19150)	17.83	18.03	17.99
			1880 (18900)	17.84	18.10	17.95
			1855 (18650)	17.78	17.96	17.96
1RB-Middle (24)		1905 (19150)	17.85	18.12	17.94	
		1880 (18900)	17.89	18.26	18.02	
		1855 (18650)	17.82	18.10	18.02	
1RB-Low (0)		1905 (19150)	17.75	18.02	17.95	
		1880 (18900)	17.79	18.15	17.95	
		1855 (18650)	17.79	18.17	17.96	
25RB-High (25)		1905 (19150)	17.86	17.92	17.89	
		1880 (18900)	17.90	17.94	17.88	
		1855 (18650)	17.85	17.88	17.88	
25RB-Middle (12)		1905 (19150)	17.81	17.87	17.87	
		1880 (18900)	17.87	17.90	17.89	
		1855 (18650)	17.79	17.86	17.85	
25RB-Low (0)		1905 (19150)	17.85	17.83	17.88	
		1880 (18900)	17.89	17.86	17.86	
		1855 (18650)	17.80	17.83	17.82	
50RB (0)		1905 (19150)	17.85	17.87	17.86	
		1880 (18900)	17.92	17.85	17.87	
		1855 (18650)	17.86	17.86	17.89	

15MHz	1RB-High (74)	1902.5 (19125)	17.77	18.08	17.97	
		1880 (18900)	17.77	18.05	17.93	
		1857.5 (18675)	17.72	18.00	17.86	
	1RB-Middle (37)	1902.5 (19125)	17.79	18.11	17.91	
		1880 (18900)	17.87	18.17	18.05	
		1857.5 (18675)	17.83	18.17	17.95	
	1RB-Low (0)	1902.5 (19125)	17.78	18.13	17.93	
		1880 (18900)	17.72	17.99	17.96	
		1857.5 (18675)	17.80	18.00	17.99	
	36RB-High (38)	1902.5 (19125)	17.79	17.86	17.80	
		1880 (18900)	17.85	17.85	17.88	
		1857.5 (18675)	17.81	17.86	17.84	
	36RB-Middle (19)	1902.5 (19125)	17.79	17.84	17.85	
		1880 (18900)	17.87	17.90	17.90	
		1857.5 (18675)	17.82	17.83	17.88	
	36RB-Low (0)	1902.5 (19125)	17.87	17.88	17.89	
		1880 (18900)	17.88	17.85	17.86	
		1857.5 (18675)	17.82	17.85	17.89	
	75RB (0)	1902.5 (19125)	17.85	17.86	17.88	
		1880 (18900)	17.91	17.91	17.91	
		1857.5 (18675)	17.86	17.83	17.84	
	20MHz	1RB-High (99)	1900 (19100)	17.79	17.99	17.91
			1880 (18900)	17.75	17.94	17.90
			1860 (18700)	17.69	17.97	17.86
1RB-Middle (50)		1900 (19100)	17.85	18.01	17.94	
		1880 (18900)	17.93	18.26	18.01	
		1860 (18700)	17.82	17.99	17.93	
1RB-Low (0)		1900 (19100)	17.79	17.96	17.93	
		1880 (18900)	17.74	18.06	17.84	
		1860 (18700)	17.78	17.94	17.93	
50RB-High (50)		1900 (19100)	17.77	17.80	17.82	
		1880 (18900)	17.88	17.90	17.91	
		1860 (18700)	17.81	17.78	17.83	
50RB-Middle (25)		1900 (19100)	17.85	17.87	17.87	
		1880 (18900)	17.87	17.86	17.86	
		1860 (18700)	17.86	17.82	17.87	
50RB-Low (0)		1900 (19100)	17.93	17.92	17.88	
		1880 (18900)	17.95	17.91	17.92	
		1860 (18700)	17.82	17.82	17.81	
100RB (0)		1900 (19100)	17.82	17.83	17.82	
		1880 (18900)	17.89	17.86	17.89	
		1860 (18700)	17.82	17.77	17.77	

LTE B7-Power Level A1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	64QAM
5MHz	1RB-High (24)	2567.5 (21425)	21.43	21.67	21.55
		2535 (21100)	21.37	21.62	21.55
		2502.5 (20775)	21.39	21.60	21.45
	1RB-Middle (12)	2567.5 (21425)	21.40	21.69	21.58
		2535 (21100)	21.39	21.63	21.49
		2502.5 (20775)	21.30	21.59	21.43
	1RB-Low (0)	2567.5 (21425)	21.42	21.66	21.58
		2535 (21100)	21.38	21.56	21.58
		2502.5 (20775)	21.31	21.56	21.48
	12RB-High (13)	2567.5 (21425)	21.44	21.46	20.46
		2535 (21100)	21.35	21.36	20.33
		2502.5 (20775)	21.38	21.36	20.35
	12RB-Middle (6)	2567.5 (21425)	21.41	21.44	20.42
		2535 (21100)	21.39	21.39	20.37
		2502.5 (20775)	21.32	21.33	20.35
	12RB-Low (0)	2567.5 (21425)	21.43	21.46	20.48
		2535 (21100)	21.43	21.39	20.36
		2502.5 (20775)	21.38	21.35	20.33
	25RB (0)	2567.5 (21425)	21.45	21.50	20.41
		2535 (21100)	21.37	21.40	20.35
		2502.5 (20775)	21.35	21.34	20.32
10MHz	1RB-High (49)	2565 (21400)	21.39	21.64	21.51
		2535 (21100)	21.37	21.72	21.49
		2505 (20800)	21.38	21.52	21.46
	1RB-Middle (24)	2565 (21400)	21.46	21.77	21.51
		2535 (21100)	21.36	21.73	21.56
		2505 (20800)	21.39	21.56	21.43
	1RB-Low (0)	2565 (21400)	21.41	21.63	21.56
		2535 (21100)	21.39	21.59	21.47
		2505 (20800)	21.28	21.46	21.40
	25RB-High (25)	2565 (21400)	21.43	21.48	20.43
		2535 (21100)	21.38	21.45	20.38
		2505 (20800)	21.36	21.39	20.33
	25RB-Middle (12)	2565 (21400)	21.42	21.52	20.46
		2535 (21100)	21.40	21.41	20.40
		2505 (20800)	21.29	21.35	20.34
	25RB-Low (0)	2565 (21400)	21.48	21.48	20.50
		2535 (21100)	21.43	21.40	20.42
		2505 (20800)	21.30	21.30	20.29
	50RB (0)	2565 (21400)	21.45	21.48	20.48
		2535 (21100)	21.40	21.42	20.38
		2505 (20800)	21.36	21.34	20.32



15MHz	1RB-High (74)	2562.5 (21375)	21.39	21.59	21.54	
		2535 (21100)	21.31	21.62	21.52	
		2507.5 (20825)	21.25	21.57	21.38	
	1RB-Middle (37)	2562.5 (21375)	21.42	21.60	21.63	
		2535 (21100)	21.38	21.63	21.53	
		2507.5 (20825)	21.24	21.60	21.47	
	1RB-Low (0)	2562.5 (21375)	21.39	21.69	21.60	
		2535 (21100)	21.29	21.52	21.46	
		2507.5 (20825)	21.22	21.48	21.31	
	36RB-High (38)	2562.5 (21375)	21.34	21.43	20.46	
		2535 (21100)	21.32	21.32	20.35	
		2507.5 (20825)	21.29	21.26	20.30	
	36RB-Middle (19)	2562.5 (21375)	21.39	21.37	20.43	
		2535 (21100)	21.35	21.36	20.40	
		2507.5 (20825)	21.25	21.29	20.24	
	36RB-Low (0)	2562.5 (21375)	21.45	21.45	20.46	
		2535 (21100)	21.40	21.39	20.42	
		2507.5 (20825)	21.22	21.30	20.25	
	75RB (0)	2562.5 (21375)	21.39	21.43	20.39	
		2535 (21100)	21.37	21.37	20.37	
		2507.5 (20825)	21.25	21.29	20.25	
	20MHz	1RB-High (99)	2560 (21350)	21.19	21.54	21.40
			2535 (21100)	21.23	21.53	21.38
			2510 (20850)	21.17	21.40	21.32
1RB-Middle (50)		2560 (21350)	21.33	21.62	21.43	
		2535 (21100)	21.35	21.45	21.38	
		2510 (20850)	21.22	21.56	21.39	
1RB-Low (0)		2560 (21350)	21.28	21.55	21.42	
		2535 (21100)	21.19	21.46	21.35	
		2510 (20850)	21.15	21.30	21.29	
50RB-High (50)		2560 (21350)	21.23	21.21	20.22	
		2535 (21100)	21.26	21.27	20.26	
		2510 (20850)	21.31	21.25	20.22	
50RB-Middle (25)		2560 (21350)	21.35	21.33	20.34	
		2535 (21100)	21.31	21.31	20.27	
		2510 (20850)	21.26	21.21	20.19	
50RB-Low (0)		2560 (21350)	21.35	21.38	20.38	
		2535 (21100)	21.41	21.39	20.39	
		2510 (20850)	21.19	21.23	20.22	
100RB (0)		2560 (21350)	21.31	21.32	20.29	
		2535 (21100)	21.33	21.31	20.25	
		2510 (20850)	21.24	21.23	20.22	

LTE B7-Power Level C1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	64QAM
5MHz	1RB-High (24)	2567.5 (21425)	19.31	19.47	19.44
		2535 (21100)	19.32	19.52	19.38
		2502.5 (20775)	19.29	19.60	19.46
	1RB-Middle (12)	2567.5 (21425)	19.33	19.53	19.57
		2535 (21100)	19.34	19.52	19.51
		2502.5 (20775)	19.27	19.42	19.35
	1RB-Low (0)	2567.5 (21425)	19.33	19.65	19.50
		2535 (21100)	19.29	19.60	19.48
		2502.5 (20775)	19.25	19.43	19.36
	12RB-High (13)	2567.5 (21425)	19.38	19.35	19.42
		2535 (21100)	19.26	19.30	19.29
		2502.5 (20775)	19.28	19.26	19.29
	12RB-Middle (6)	2567.5 (21425)	19.30	19.35	19.37
		2535 (21100)	19.33	19.30	19.30
		2502.5 (20775)	19.21	19.21	19.30
	12RB-Low (0)	2567.5 (21425)	19.38	19.37	19.39
		2535 (21100)	19.27	19.36	19.36
		2502.5 (20775)	19.26	19.24	19.31
	25RB (0)	2567.5 (21425)	19.34	19.41	19.39
		2535 (21100)	19.28	19.32	19.31
		2502.5 (20775)	19.24	19.27	19.28
10MHz	1RB-High (49)	2565 (21400)	19.32	19.56	19.36
		2535 (21100)	19.32	19.51	19.42
		2505 (20800)	19.24	19.48	19.42
	1RB-Middle (24)	2565 (21400)	19.37	19.58	19.56
		2535 (21100)	19.36	19.50	19.47
		2505 (20800)	19.28	19.50	19.42
	1RB-Low (0)	2565 (21400)	19.35	19.54	19.48
		2535 (21100)	19.26	19.55	19.44
		2505 (20800)	19.26	19.46	19.42
	25RB-High (25)	2565 (21400)	19.37	19.38	19.38
		2535 (21100)	19.34	19.34	19.34
		2505 (20800)	19.22	19.24	19.29
	25RB-Middle (12)	2565 (21400)	19.37	19.40	19.40
		2535 (21100)	19.34	19.34	19.35
		2505 (20800)	19.27	19.28	19.24
	25RB-Low (0)	2565 (21400)	19.41	19.40	19.43
		2535 (21100)	19.34	19.39	19.39
		2505 (20800)	19.23	19.24	19.25
	50RB (0)	2565 (21400)	19.40	19.40	19.39
		2535 (21100)	19.36	19.35	19.38
		2505 (20800)	19.28	19.25	19.27

15MHz	1RB-High (74)	2562.5 (21375)	19.26	19.47	19.39	
		2535 (21100)	19.19	19.59	19.46	
		2507.5 (20825)	19.15	19.38	19.31	
	1RB-Middle (37)	2562.5 (21375)	19.34	19.65	19.53	
		2535 (21100)	19.32	19.57	19.49	
		2507.5 (20825)	19.21	19.46	19.36	
	1RB-Low (0)	2562.5 (21375)	19.31	19.58	19.42	
		2535 (21100)	19.20	19.47	19.37	
		2507.5 (20825)	19.14	19.37	19.31	
	36RB-High (38)	2562.5 (21375)	19.35	19.34	19.38	
		2535 (21100)	19.25	19.27	19.28	
		2507.5 (20825)	19.17	19.24	19.30	
	36RB-Middle (19)	2562.5 (21375)	19.32	19.34	19.35	
		2535 (21100)	19.28	19.35	19.36	
		2507.5 (20825)	19.23	19.24	19.26	
	36RB-Low (0)	2562.5 (21375)	19.36	19.39	19.42	
		2535 (21100)	19.28	19.33	19.34	
		2507.5 (20825)	19.21	19.21	19.20	
	75RB (0)	2562.5 (21375)	19.36	19.40	19.38	
		2535 (21100)	19.32	19.31	19.29	
		2507.5 (20825)	19.22	19.23	19.23	
	20MHz	1RB-High (99)	2560 (21350)	19.18	19.36	19.35
			2535 (21100)	19.06	19.46	19.21
			2510 (20850)	19.04	19.26	19.21
		1RB-Middle (50)	2560 (21350)	19.24	19.48	19.31
			2535 (21100)	19.15	19.46	19.27
			2510 (20850)	19.12	19.41	19.26
1RB-Low (0)		2560 (21350)	19.21	19.55	19.38	
		2535 (21100)	19.07	19.27	19.17	
		2510 (20850)	19.00	19.29	19.10	
50RB-High (50)		2560 (21350)	19.11	19.14	19.11	
		2535 (21100)	19.16	19.15	19.15	
		2510 (20850)	19.14	19.11	19.11	
50RB-Middle (25)		2560 (21350)	19.25	19.23	19.24	
		2535 (21100)	19.17	19.21	19.18	
		2510 (20850)	19.10	19.08	19.11	
50RB-Low (0)		2560 (21350)	19.28	19.23	19.20	
		2535 (21100)	19.27	19.25	19.25	
		2510 (20850)	19.07	19.10	19.09	
100RB (0)		2560 (21350)	19.18	19.19	19.15	
		2535 (21100)	19.18	19.17	19.14	
		2510 (20850)	19.09	19.06	19.10	

LTE B12-Power Level A1/C1/D1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	64QAM
1.4MHz	1RB-High (5)	715.3 (23173)	23.61	22.96	21.75
		707.5 (23095)	23.59	22.87	21.78
		699.7 (23017)	23.62	22.93	21.69
	1RB-Middle (3)	715.3 (23173)	23.67	23.05	21.81
		707.5 (23095)	23.63	22.81	21.76
		699.7 (23017)	23.62	22.83	21.73
	1RB-Low (0)	715.3 (23173)	23.63	22.87	21.77
		707.5 (23095)	23.61	22.94	21.68
		699.7 (23017)	23.57	22.78	21.74
	3RB-High (3)	715.3 (23173)	23.67	22.60	21.74
		707.5 (23095)	23.61	22.51	21.64
		699.7 (23017)	23.60	22.56	21.65
	3RB-Middle (1)	715.3 (23173)	23.68	22.69	21.79
		707.5 (23095)	23.63	22.66	21.68
		699.7 (23017)	23.60	22.55	21.63
	3RB-Low (0)	715.3 (23173)	23.66	22.55	21.71
		707.5 (23095)	23.65	22.64	21.65
		699.7 (23017)	23.60	22.58	21.63
	6RB (0)	715.3 (23173)	22.67	21.71	20.57
		707.5 (23095)	22.62	21.66	20.54
		699.7 (23017)	22.58	21.63	20.48
3MHz	1RB-High (14)	714.5 (23165)	23.57	22.92	21.79
		707.5 (23095)	23.55	22.90	21.68
		700.5 (23025)	23.57	22.79	21.83
	1RB-Middle (7)	714.5 (23165)	23.57	22.94	21.82
		707.5 (23095)	23.60	22.86	21.80
		700.5 (23025)	23.68	22.84	21.74
	1RB-Low (0)	714.5 (23165)	23.56	22.86	21.78
		707.5 (23095)	23.57	22.88	21.76
		700.5 (23025)	23.59	22.90	21.69
	8RB-High (7)	714.5 (23165)	22.62	21.71	20.62
		707.5 (23095)	22.54	21.59	20.51
		700.5 (23025)	22.56	21.63	20.61
	8RB-Middle (4)	714.5 (23165)	22.59	21.69	20.63
		707.5 (23095)	22.59	21.64	20.54
		700.5 (23025)	22.56	21.69	20.61
	8RB-Low (0)	714.5 (23165)	22.60	21.61	20.56
		707.5 (23095)	22.57	21.63	20.58
		700.5 (23025)	22.57	21.61	20.56
	15RB (0)	714.5 (23165)	22.63	21.61	20.58
		707.5 (23095)	22.53	21.57	20.55
		700.5 (23025)	22.61	21.59	20.59

5MHz	1RB-High (24)	713.5 (23155)	23.72	22.93	21.79	
		707.5 (23095)	23.65	22.91	21.77	
		701.5 (23035)	23.68	23.01	21.84	
	1RB-Middle (12)	713.5 (23155)	23.64	23.01	21.73	
		707.5 (23095)	23.66	22.93	21.69	
		701.5 (23035)	23.62	22.92	21.76	
	1RB-Low (0)	713.5 (23155)	23.65	23.01	21.79	
		707.5 (23095)	23.67	22.91	21.83	
		701.5 (23035)	23.66	22.99	21.74	
	12RB-High (13)	713.5 (23155)	22.60	21.60	20.58	
		707.5 (23095)	22.57	21.51	20.50	
		701.5 (23035)	22.67	21.63	20.61	
	12RB-Middle (6)	713.5 (23155)	22.58	21.58	20.54	
		707.5 (23095)	22.62	21.60	20.63	
		701.5 (23035)	22.59	21.57	20.56	
	12RB-Low (0)	713.5 (23155)	22.52	21.57	20.55	
		707.5 (23095)	22.66	21.65	20.65	
		701.5 (23035)	22.54	21.49	20.51	
	25RB (0)	713.5 (23155)	22.63	21.60	20.58	
		707.5 (23095)	22.59	21.58	20.56	
		701.5 (23035)	22.64	21.62	20.56	
	10MHz	1RB-High (49)	711 (23130)	23.74	22.96	21.94
			707.5 (23095)	23.73	22.93	21.90
			704 (23060)	23.76	23.10	21.82
1RB-Middle (24)		711 (23130)	23.80	23.07	22.03	
		707.5 (23095)	23.84	23.07	21.94	
		704 (23060)	23.78	23.06	21.97	
1RB-Low (0)		711 (23130)	23.86	23.16	21.94	
		707.5 (23095)	23.75	22.98	21.91	
		704 (23060)	23.79	23.08	21.94	
25RB-High (25)		711 (23130)	22.81	21.87	20.80	
		707.5 (23095)	22.74	21.73	20.70	
		704 (23060)	22.69	21.66	20.64	
25RB-Middle (12)		711 (23130)	22.78	21.78	20.80	
		707.5 (23095)	22.77	21.76	20.72	
		704 (23060)	22.75	21.71	20.67	
25RB-Low (0)		711 (23130)	22.89	21.90	20.84	
		707.5 (23095)	22.87	21.84	20.86	
		704 (23060)	22.59	21.60	20.61	
50RB (0)		711 (23130)	22.83	21.82	20.79	
		707.5 (23095)	22.78	21.79	20.74	
		704 (23060)	22.64	21.67	20.62	

LTE B12-Power Level B1						
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	64QAM	
1.4MHz	1RB-High (5)	715.3 (23173)	20.44	20.85	20.74	
		707.5 (23095)	20.41	20.68	20.70	
		699.7 (23017)	20.41	20.88	20.68	
	1RB-Middle (3)	715.3 (23173)	20.46	20.75	20.74	
		707.5 (23095)	20.44	20.84	20.71	
		699.7 (23017)	20.43	20.86	20.66	
	1RB-Low (0)	715.3 (23173)	20.46	20.87	20.74	
		707.5 (23095)	20.41	20.75	20.69	
		699.7 (23017)	20.42	20.86	20.60	
	3RB-High (3)	715.3 (23173)	20.54	20.59	20.63	
		707.5 (23095)	20.45	20.48	20.60	
		699.7 (23017)	20.45	20.52	20.57	
	3RB-Middle (1)	715.3 (23173)	20.54	20.57	20.64	
		707.5 (23095)	20.46	20.50	20.59	
		699.7 (23017)	20.41	20.41	20.61	
	3RB-Low (0)	715.3 (23173)	20.49	20.55	20.64	
		707.5 (23095)	20.46	20.48	20.61	
		699.7 (23017)	20.42	20.36	20.56	
	6RB (0)	715.3 (23173)	20.52	20.64	20.54	
		707.5 (23095)	20.46	20.54	20.49	
		699.7 (23017)	20.43	20.56	20.48	
	3MHz	1RB-High (14)	714.5 (23165)	20.55	20.91	20.76
			707.5 (23095)	20.42	20.81	20.60
			700.5 (23025)	20.45	20.79	20.62
1RB-Middle (7)		714.5 (23165)	20.52	20.91	20.68	
		707.5 (23095)	20.48	20.81	20.78	
		700.5 (23025)	20.49	20.75	20.81	
1RB-Low (0)		714.5 (23165)	20.48	20.82	20.68	
		707.5 (23095)	20.51	20.81	20.70	
		700.5 (23025)	20.44	20.88	20.58	
8RB-High (7)		714.5 (23165)	20.57	20.60	20.57	
		707.5 (23095)	20.46	20.59	20.54	
		700.5 (23025)	20.49	20.59	20.54	
8RB-Middle (4)		714.5 (23165)	20.51	20.59	20.57	
		707.5 (23095)	20.49	20.59	20.53	
		700.5 (23025)	20.51	20.57	20.55	
8RB-Low (0)		714.5 (23165)	20.51	20.58	20.58	
		707.5 (23095)	20.45	20.57	20.55	
		700.5 (23025)	20.46	20.57	20.49	
15RB (0)		714.5 (23165)	20.54	20.55	20.51	
		707.5 (23095)	20.52	20.54	20.50	
		700.5 (23025)	20.49	20.52	20.55	

5MHz	1RB-High (24)	713.5 (23155)	20.52	20.79	20.81	
		707.5 (23095)	20.52	20.93	20.75	
		701.5 (23035)	20.53	20.81	20.66	
	1RB-Middle (12)	713.5 (23155)	20.43	20.92	20.78	
		707.5 (23095)	20.52	20.88	20.65	
		701.5 (23035)	20.56	20.79	20.71	
	1RB-Low (0)	713.5 (23155)	20.48	20.74	20.74	
		707.5 (23095)	20.52	20.96	20.74	
		701.5 (23035)	20.47	20.93	20.77	
	12RB-High (13)	713.5 (23155)	20.50	20.49	20.57	
		707.5 (23095)	20.48	20.44	20.50	
		701.5 (23035)	20.53	20.56	20.62	
	12RB-Middle (6)	713.5 (23155)	20.52	20.50	20.56	
		707.5 (23095)	20.51	20.53	20.59	
		701.5 (23035)	20.44	20.52	20.52	
	12RB-Low (0)	713.5 (23155)	20.51	20.52	20.55	
		707.5 (23095)	20.54	20.57	20.59	
		701.5 (23035)	20.42	20.47	20.50	
	25RB (0)	713.5 (23155)	20.51	20.53	20.54	
		707.5 (23095)	20.48	20.53	20.53	
		701.5 (23035)	20.52	20.53	20.51	
	10MHz	1RB-High (49)	711 (23130)	20.49	20.73	20.73
			707.5 (23095)	20.45	20.79	20.60
			704 (23060)	20.46	20.86	20.65
1RB-Middle (24)		711 (23130)	20.46	20.84	20.70	
		707.5 (23095)	20.58	20.78	20.69	
		704 (23060)	20.57	20.86	20.84	
1RB-Low (0)		711 (23130)	20.55	20.94	20.74	
		707.5 (23095)	20.50	20.85	20.68	
		704 (23060)	20.52	20.81	20.72	
25RB-High (25)		711 (23130)	20.55	20.60	20.57	
		707.5 (23095)	20.45	20.46	20.49	
		704 (23060)	20.46	20.47	20.50	
25RB-Middle (12)		711 (23130)	20.57	20.56	20.59	
		707.5 (23095)	20.51	20.54	20.55	
		704 (23060)	20.46	20.57	20.56	
25RB-Low (0)		711 (23130)	20.63	20.61	20.66	
		707.5 (23095)	20.66	20.60	20.64	
		704 (23060)	20.48	20.34	20.41	
50RB (0)		711 (23130)	20.62	20.61	20.60	
		707.5 (23095)	20.55	20.56	20.55	
		704 (23060)	20.36	20.43	20.44	

LTE B13-Power Level A1/C1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	64QAM
5MHz	1RB-High (24)	784.5 (23255)	22.64	21.91	20.74
		782 (23230)	22.70	21.90	20.82
		779.5 (23205)	22.72	21.97	20.79
	1RB-Middle (12)	784.5 (23255)	22.73	21.99	20.83
		782 (23230)	22.73	21.90	20.88
		779.5 (23205)	22.75	21.88	20.89
	1RB-Low (0)	784.5 (23255)	22.72	21.86	20.83
		782 (23230)	22.74	21.91	20.89
		779.5 (23205)	22.80	21.93	20.83
	12RB-High (13)	784.5 (23255)	21.52	20.55	19.58
		782 (23230)	21.62	20.60	19.64
		779.5 (23205)	21.72	20.72	19.71
	12RB-Middle (6)	784.5 (23255)	21.65	20.65	19.69
		782 (23230)	21.68	20.65	19.68
		779.5 (23205)	21.68	20.63	19.64
	12RB-Low (0)	784.5 (23255)	21.70	20.67	19.72
		782 (23230)	21.63	20.57	19.59
		779.5 (23205)	21.60	20.56	19.61
	25RB (0)	784.5 (23255)	21.64	20.63	19.62
		782 (23230)	21.64	20.66	19.63
		779.5 (23205)	21.69	20.71	19.71
10MHz	1RB-High (49)	782 (23230)	22.76	21.98	20.74
	1RB-Middle (24)	782 (23230)	22.84	22.07	20.92
	1RB-Low (0)	782 (23230)	22.88	21.97	20.88
	25RB-High (25)	782 (23230)	21.68	20.69	19.59
	25RB-Middle (12)	782 (23230)	21.71	20.76	19.67
	25RB-Low (0)	782 (23230)	21.67	20.66	19.64
	50RB (0)	782 (23230)	21.68	20.63	19.63



LTE B25-Power Level A1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	64QAM
1.4MHz	1RB-High (5)	1914.3 (26683)	19.95	20.17	20.06
		1882.5 (26365)	19.97	20.23	20.15
		1850.7 (26047)	19.97	20.19	20.16
	1RB-Middle (3)	1914.3 (26683)	19.98	20.19	20.16
		1882.5 (26365)	20.00	20.22	20.07
		1850.7 (26047)	20.02	20.23	20.05
	1RB-Low (0)	1914.3 (26683)	19.94	20.26	20.14
		1882.5 (26365)	19.96	20.24	20.18
		1850.7 (26047)	19.98	20.18	20.12
	3RB-High (3)	1914.3 (26683)	19.99	19.95	20.04
		1882.5 (26365)	19.99	19.89	20.09
		1850.7 (26047)	19.99	19.99	20.13
	3RB-Middle (1)	1914.3 (26683)	20.00	19.96	20.05
		1882.5 (26365)	20.01	19.95	20.10
		1850.7 (26047)	19.96	20.04	20.06
	3RB-Low (0)	1914.3 (26683)	19.98	20.04	20.02
		1882.5 (26365)	20.05	20.00	20.08
		1850.7 (26047)	20.02	19.97	20.06
	6RB (0)	1914.3 (26683)	19.98	20.11	19.94
		1882.5 (26365)	20.05	20.06	19.95
		1850.7 (26047)	20.01	20.06	19.96
3MHz	1RB-High (14)	1913.5 (26675)	19.94	20.13	20.17
		1882.5 (26365)	19.96	20.23	20.09
		1851.5 (26055)	20.03	20.29	20.11
	1RB-Middle (7)	1913.5 (26675)	19.98	20.15	20.12
		1882.5 (26365)	19.96	20.23	20.08
		1851.5 (26055)	19.97	20.24	20.13
	1RB-Low (0)	1913.5 (26675)	19.89	20.14	20.09
		1882.5 (26365)	19.96	20.17	20.13
		1851.5 (26055)	19.92	20.28	20.16
	8RB-High (7)	1913.5 (26675)	19.96	20.03	20.01
		1882.5 (26365)	19.97	20.02	20.02
		1851.5 (26055)	19.98	20.05	20.01
	8RB-Middle (4)	1913.5 (26675)	19.97	20.06	20.03
		1882.5 (26365)	19.96	20.08	19.96
		1851.5 (26055)	19.97	20.06	20.02
	8RB-Low (0)	1913.5 (26675)	19.97	20.08	20.07
		1882.5 (26365)	19.99	20.06	20.05
		1851.5 (26055)	20.01	20.06	20.02
	15RB (0)	1913.5 (26675)	19.98	20.03	19.98
		1882.5 (26365)	19.94	19.97	19.98
		1851.5 (26055)	19.97	20.03	19.98

5MHz	1RB-High (24)	1912.5 (26665)	19.97	20.24	20.16	
		1882.5 (26365)	19.98	20.26	20.17	
		1852.5 (26065)	20.03	20.22	20.17	
	1RB-Middle (12)	1912.5 (26665)	19.99	20.31	20.21	
		1882.5 (26365)	20.06	20.24	20.21	
		1852.5 (26065)	20.08	20.23	20.27	
	1RB-Low (0)	1912.5 (26665)	19.96	20.18	20.09	
		1882.5 (26365)	20.00	20.21	20.10	
		1852.5 (26065)	19.97	20.15	20.16	
	12RB-High (13)	1912.5 (26665)	19.92	19.89	19.95	
		1882.5 (26365)	20.02	19.95	20.03	
		1852.5 (26065)	20.02	19.98	20.06	
	12RB-Middle (6)	1912.5 (26665)	19.98	19.98	20.03	
		1882.5 (26365)	19.99	20.01	20.06	
		1852.5 (26065)	20.00	19.97	20.01	
	12RB-Low (0)	1912.5 (26665)	20.03	20.07	20.09	
		1882.5 (26365)	20.04	20.02	20.07	
		1852.5 (26065)	20.03	20.03	20.03	
	25RB (0)	1912.5 (26665)	19.99	20.00	19.99	
		1882.5 (26365)	20.03	20.04	20.02	
		1852.5 (26065)	19.99	20.01	20.02	
	10MHz	1RB-High (49)	1910 (26640)	20.01	20.14	20.18
			1882.5 (26365)	20.01	20.24	20.10
			1855 (26090)	19.98	20.24	20.08
1RB-Middle (24)		1910 (26640)	19.92	20.30	20.10	
		1882.5 (26365)	20.03	20.31	20.17	
		1855 (26090)	20.05	20.24	20.18	
1RB-Low (0)		1910 (26640)	19.96	20.15	20.08	
		1882.5 (26365)	19.98	20.22	20.11	
		1855 (26090)	19.96	20.29	20.08	
25RB-High (25)		1910 (26640)	19.91	19.94	19.92	
		1882.5 (26365)	20.03	20.02	20.04	
		1855 (26090)	20.03	20.06	20.02	
25RB-Middle (12)		1910 (26640)	19.98	20.03	20.02	
		1882.5 (26365)	19.97	20.05	20.07	
		1855 (26090)	20.02	20.00	20.01	
25RB-Low (0)		1910 (26640)	20.03	20.03	20.02	
		1882.5 (26365)	20.08	20.11	20.10	
		1855 (26090)	20.01	20.04	20.02	
50RB (0)		1910 (26640)	19.97	19.96	19.99	
		1882.5 (26365)	20.03	20.06	20.06	
		1855 (26090)	20.01	20.02	20.03	

15MHz	1RB-High (74)	1907.5 (26615)	19.94	20.25	20.10	
		1882.5 (26365)	19.89	20.16	20.05	
		1857.5 (26115)	19.87	20.07	20.08	
	1RB-Middle (37)	1907.5 (26615)	19.95	20.26	20.15	
		1882.5 (26365)	19.96	20.30	20.16	
		1857.5 (26115)	19.95	20.15	20.11	
	1RB-Low (0)	1907.5 (26615)	19.89	20.19	20.05	
		1882.5 (26365)	19.93	20.21	20.08	
		1857.5 (26115)	19.91	20.19	20.11	
	36RB-High (38)	1907.5 (26615)	19.89	19.97	19.99	
		1882.5 (26365)	19.98	19.97	19.98	
		1857.5 (26115)	19.97	19.97	20.00	
	36RB-Middle (19)	1907.5 (26615)	19.96	20.00	20.01	
		1882.5 (26365)	19.95	19.97	20.05	
		1857.5 (26115)	19.96	19.96	20.02	
	36RB-Low (0)	1907.5 (26615)	20.00	19.98	19.99	
		1882.5 (26365)	20.03	20.05	20.04	
		1857.5 (26115)	19.96	19.95	20.01	
	75RB (0)	1907.5 (26615)	19.95	19.95	19.97	
		1882.5 (26365)	20.02	20.02	20.01	
		1857.5 (26115)	19.99	19.98	19.98	
	20MHz	1RB-High (99)	1905 (26590)	20.09	20.26	20.17
			1882.5 (26365)	20.09	20.34	20.18
			1860 (26140)	20.09	20.36	20.25
1RB-Middle (50)		1905 (26590)	20.14	20.30	20.31	
		1882.5 (26365)	20.18	20.31	20.28	
		1860 (26140)	20.10	20.43	20.28	
1RB-Low (0)		1905 (26590)	20.05	20.35	20.16	
		1882.5 (26365)	20.10	20.27	20.27	
		1860 (26140)	20.05	20.32	20.13	
50RB-High (50)		1905 (26590)	20.06	20.09	20.07	
		1882.5 (26365)	20.20	20.17	20.18	
		1860 (26140)	20.08	20.11	20.11	
50RB-Middle (25)		1905 (26590)	20.20	20.18	20.18	
		1882.5 (26365)	20.23	20.17	20.24	
		1860 (26140)	20.17	20.18	20.15	
50RB-Low (0)		1905 (26590)	20.19	20.21	20.23	
		1882.5 (26365)	20.25	20.24	20.24	
		1860 (26140)	20.11	20.10	20.13	
100RB (0)		1905 (26590)	20.14	20.12	20.13	
		1882.5 (26365)	20.21	20.17	20.17	
		1860 (26140)	20.09	20.06	20.06	

LTE B25-Power Level C1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	64QAM
1.4MHz	1RB-High (5)	1914.3 (26683)	21.13	21.25	21.30
		1882.5 (26365)	21.02	21.42	21.15
		1850.7 (26047)	21.22	21.34	21.41
	1RB-Middle (3)	1914.3 (26683)	21.02	21.40	21.16
		1882.5 (26365)	21.16	21.55	21.41
		1850.7 (26047)	20.94	21.46	21.02
	1RB-Low (0)	1914.3 (26683)	20.96	21.20	21.19
		1882.5 (26365)	21.07	21.54	21.39
		1850.7 (26047)	21.00	21.07	21.04
	3RB-High (3)	1914.3 (26683)	21.01	20.93	20.94
		1882.5 (26365)	21.01	21.29	20.98
		1850.7 (26047)	20.94	20.90	21.04
	3RB-Middle (1)	1914.3 (26683)	21.09	21.15	21.20
		1882.5 (26365)	21.12	21.22	21.12
		1850.7 (26047)	20.86	20.97	21.29
	3RB-Low (0)	1914.3 (26683)	20.99	21.20	21.23
		1882.5 (26365)	21.06	21.04	21.14
		1850.7 (26047)	20.92	21.14	21.06
	6RB (0)	1914.3 (26683)	21.08	21.19	21.18
		1882.5 (26365)	21.12	20.86	20.85
		1850.7 (26047)	21.07	21.00	21.16
3MHz	1RB-High (14)	1913.5 (26675)	20.94	21.33	21.17
		1882.5 (26365)	20.99	21.38	21.16
		1851.5 (26055)	21.06	21.33	21.33
	1RB-Middle (7)	1913.5 (26675)	21.04	21.35	21.18
		1882.5 (26365)	21.05	21.39	21.27
		1851.5 (26055)	21.03	21.39	21.18
	1RB-Low (0)	1913.5 (26675)	20.94	21.26	21.20
		1882.5 (26365)	21.00	21.40	21.24
		1851.5 (26055)	21.01	21.25	21.24
	8RB-High (7)	1913.5 (26675)	20.99	21.09	21.05
		1882.5 (26365)	20.99	21.11	21.05
		1851.5 (26055)	20.99	21.10	21.06
	8RB-Middle (4)	1913.5 (26675)	20.98	21.13	21.07
		1882.5 (26365)	20.99	21.08	21.09
		1851.5 (26055)	21.02	21.11	21.10
	8RB-Low (0)	1913.5 (26675)	21.01	21.14	21.09
		1882.5 (26365)	21.04	21.16	21.09
		1851.5 (26055)	20.98	21.11	21.09
	15RB (0)	1913.5 (26675)	20.99	21.04	21.03
		1882.5 (26365)	20.99	21.06	21.01
		1851.5 (26055)	21.00	21.05	21.05

5MHz	1RB-High (24)	1912.5 (26665)	21.01	21.35	21.20	
		1882.5 (26365)	21.06	21.43	21.21	
		1852.5 (26065)	21.11	21.34	21.34	
	1RB-Middle (12)	1912.5 (26665)	21.06	21.26	21.20	
		1882.5 (26365)	21.04	21.42	21.25	
		1852.5 (26065)	21.11	21.42	21.29	
	1RB-Low (0)	1912.5 (26665)	20.99	21.32	21.17	
		1882.5 (26365)	21.06	21.35	21.21	
		1852.5 (26065)	21.02	21.39	21.21	
	12RB-High (13)	1912.5 (26665)	20.94	20.97	20.99	
		1882.5 (26365)	21.05	21.02	21.09	
		1852.5 (26065)	21.04	21.07	21.08	
	12RB-Middle (6)	1912.5 (26665)	21.05	21.07	21.11	
		1882.5 (26365)	21.05	21.08	21.11	
		1852.5 (26065)	21.05	21.08	21.09	
	12RB-Low (0)	1912.5 (26665)	21.10	21.04	21.12	
		1882.5 (26365)	21.06	21.11	21.10	
		1852.5 (26065)	21.06	21.03	21.12	
	25RB (0)	1912.5 (26665)	21.02	21.07	21.08	
		1882.5 (26365)	21.07	21.11	21.09	
		1852.5 (26065)	21.06	21.07	21.07	
	10MHz	1RB-High (49)	1910 (26640)	21.05	21.21	21.20
			1882.5 (26365)	21.07	21.37	21.25
			1855 (26090)	21.05	21.24	21.18
1RB-Middle (24)		1910 (26640)	21.03	21.39	21.21	
		1882.5 (26365)	21.09	21.36	21.28	
		1855 (26090)	21.12	21.38	21.21	
1RB-Low (0)		1910 (26640)	21.05	21.24	21.14	
		1882.5 (26365)	21.07	21.45	21.23	
		1855 (26090)	21.07	21.42	21.17	
25RB-High (25)		1910 (26640)	20.95	21.00	20.97	
		1882.5 (26365)	21.07	21.07	21.13	
		1855 (26090)	21.09	21.11	21.12	
25RB-Middle (12)		1910 (26640)	21.04	21.09	21.08	
		1882.5 (26365)	21.07	21.12	21.12	
		1855 (26090)	21.02	21.11	21.09	
25RB-Low (0)		1910 (26640)	21.10	21.08	21.08	
		1882.5 (26365)	21.12	21.17	21.16	
		1855 (26090)	21.05	21.10	21.08	
50RB (0)		1910 (26640)	20.99	21.02	21.07	
		1882.5 (26365)	21.13	21.14	21.12	
		1855 (26090)	21.07	21.09	21.09	

15MHz	1RB-High (74)	1907.5 (26615)	20.99	21.25	21.14	
		1882.5 (26365)	21.02	21.33	21.17	
		1857.5 (26115)	20.94	21.27	21.12	
	1RB-Middle (37)	1907.5 (26615)	21.07	21.31	21.20	
		1882.5 (26365)	21.06	21.25	21.31	
		1857.5 (26115)	21.03	21.37	21.14	
	1RB-Low (0)	1907.5 (26615)	20.99	21.22	21.13	
		1882.5 (26365)	21.03	21.19	21.14	
		1857.5 (26115)	20.97	21.22	21.15	
	36RB-High (38)	1907.5 (26615)	20.97	21.03	21.05	
		1882.5 (26365)	21.01	21.02	21.07	
		1857.5 (26115)	21.00	21.03	21.08	
	36RB-Middle (19)	1907.5 (26615)	21.01	21.06	21.07	
		1882.5 (26365)	21.04	21.13	21.09	
		1857.5 (26115)	21.03	21.08	21.04	
	36RB-Low (0)	1907.5 (26615)	21.03	21.03	21.05	
		1882.5 (26365)	21.12	21.14	21.14	
		1857.5 (26115)	21.03	21.00	21.05	
	75RB (0)	1907.5 (26615)	21.03	21.04	21.04	
		1882.5 (26365)	21.05	21.09	21.06	
		1857.5 (26115)	21.04	21.02	21.03	
	20MHz	1RB-High (99)	1905 (26590)	21.13	21.42	21.33
			1882.5 (26365)	21.12	21.31	21.25
			1860 (26140)	21.11	21.31	21.31
1RB-Middle (50)		1905 (26590)	21.17	21.42	21.33	
		1882.5 (26365)	21.19	21.51	21.32	
		1860 (26140)	21.16	21.43	21.34	
1RB-Low (0)		1905 (26590)	21.13	21.30	21.27	
		1882.5 (26365)	21.10	21.41	21.23	
		1860 (26140)	21.07	21.35	21.29	
50RB-High (50)		1905 (26590)	21.09	21.07	21.09	
		1882.5 (26365)	21.16	21.22	21.18	
		1860 (26140)	21.12	21.15	21.19	
50RB-Middle (25)		1905 (26590)	21.19	21.17	21.21	
		1882.5 (26365)	21.19	21.22	21.28	
		1860 (26140)	21.18	21.22	21.21	
50RB-Low (0)		1905 (26590)	21.22	21.27	21.25	
		1882.5 (26365)	21.28	21.30	21.29	
		1860 (26140)	21.19	21.12	21.14	
100RB (0)		1905 (26590)	21.18	21.16	21.17	
		1882.5 (26365)	21.19	21.20	21.21	
		1860 (26140)	21.10	21.12	21.13	

LTE B26-Power Level A1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	64QAM
1.4MHz	1RB-High (5)	848.3 (27033)	22.05	22.29	22.15
		831.5 (26865)	21.55	21.99	22.18
		814.7 (26697)	21.70	22.41	22.06
	1RB-Middle (3)	848.3 (27033)	22.16	22.02	21.83
		831.5 (26865)	21.69	22.41	22.25
		814.7 (26697)	21.94	21.91	22.00
	1RB-Low (0)	848.3 (27033)	21.65	21.87	22.10
		831.5 (26865)	22.13	22.34	22.12
		814.7 (26697)	22.00	22.03	22.01
	3RB-High (3)	848.3 (27033)	21.57	21.95	20.68
		831.5 (26865)	21.72	21.72	20.89
		814.7 (26697)	22.13	22.02	21.02
	3RB-Middle (1)	848.3 (27033)	21.81	21.83	20.95
		831.5 (26865)	21.64	22.09	20.96
		814.7 (26697)	21.82	21.86	20.72
	3RB-Low (0)	848.3 (27033)	22.08	22.00	20.91
		831.5 (26865)	21.70	21.72	20.95
		814.7 (26697)	21.96	22.15	20.88
	6RB (0)	848.3 (27033)	22.09	21.88	20.88
		831.5 (26865)	21.99	22.08	21.11
		814.7 (26697)	21.74	22.17	21.08
3MHz	1RB-High (14)	847.5 (27025)	21.73	22.22	22.13
		831.5 (26865)	21.98	22.30	22.15
		815.5 (26705)	22.00	22.15	22.06
	1RB-Middle (7)	847.5 (27025)	22.03	21.90	22.25
		831.5 (26865)	21.66	22.11	21.87
		815.5 (26705)	22.08	22.21	21.98
	1RB-Low (0)	847.5 (27025)	21.66	22.31	21.92
		831.5 (26865)	21.83	22.24	22.26
		815.5 (26705)	21.87	22.02	21.98
	8RB-High (7)	847.5 (27025)	21.53	21.62	20.70
		831.5 (26865)	21.64	21.83	20.62
		815.5 (26705)	21.90	22.03	20.92
	8RB-Middle (4)	847.5 (27025)	21.92	22.08	20.89
		831.5 (26865)	21.92	21.66	20.78
		815.5 (26705)	22.00	22.15	21.01
	8RB-Low (0)	847.5 (27025)	22.13	21.76	21.16
		831.5 (26865)	21.79	22.12	20.88
		815.5 (26705)	22.12	21.71	20.87
	15RB (0)	847.5 (27025)	21.70	21.65	20.82
		831.5 (26865)	21.73	22.11	20.85
		815.5 (26705)	21.77	22.15	20.88

5MHz	1RB-High (24)	846.5 (27015)	22.05	22.01	22.09	
		831.5 (26865)	21.70	22.00	22.15	
		816.5 (26715)	21.90	22.30	21.90	
	1RB-Middle (12)	846.5 (27015)	22.17	21.86	22.14	
		831.5 (26865)	22.07	22.06	21.92	
		816.5 (26715)	22.09	22.01	22.05	
	1RB-Low (0)	846.5 (27015)	22.03	22.14	21.98	
		831.5 (26865)	21.99	22.44	22.13	
		816.5 (26715)	21.72	22.39	21.89	
	12RB-High (13)	846.5 (27015)	21.95	21.94	20.82	
		831.5 (26865)	21.68	21.74	20.75	
		816.5 (26715)	22.06	21.93	20.91	
	12RB-Middle (6)	846.5 (27015)	22.05	22.12	20.91	
		831.5 (26865)	22.09	22.12	20.83	
		816.5 (26715)	21.67	21.95	21.01	
	12RB-Low (0)	846.5 (27015)	22.12	21.91	20.74	
		831.5 (26865)	21.93	21.80	20.76	
		816.5 (26715)	22.03	21.99	20.73	
	25RB (0)	846.5 (27015)	21.77	21.93	20.67	
		831.5 (26865)	22.03	21.73	20.88	
		816.5 (26715)	22.06	22.06	20.87	
	10MHz	1RB-High (49)	844 (26990)	22.00	22.10	22.01
			831.5 (26865)	21.66	22.13	21.71
			820 (26750)	22.07	22.18	21.86
1RB-Middle (24)		844 (26990)	22.02	21.86	21.82	
		831.5 (26865)	21.64	22.10	22.13	
		820 (26750)	22.06	22.20	21.90	
1RB-Low (0)		844 (26990)	21.74	22.09	22.16	
		831.5 (26865)	21.75	22.07	22.14	
		820 (26750)	22.08	21.92	22.10	
25RB-High (25)		844 (26990)	21.83	21.75	21.00	
		831.5 (26865)	21.72	22.00	20.97	
		820 (26750)	21.95	21.84	20.64	
25RB-Middle (12)		844 (26990)	21.94	21.79	20.92	
		831.5 (26865)	22.00	21.88	20.67	
		820 (26750)	22.12	21.90	20.91	
25RB-Low (0)		844 (26990)	22.14	21.95	20.73	
		831.5 (26865)	21.96	21.73	20.82	
		820 (26750)	21.90	21.78	21.14	
50RB (0)		844 (26990)	21.76	21.98	20.70	
		831.5 (26865)	21.68	21.89	20.70	
		820 (26750)	21.87	22.11	21.07	



15MHz	1RB-High (74)	841.5 (26965)	21.87	22.19	22.02
		831.5 (26865)	21.83	22.17	21.98
		822.5 (26775)	21.90	22.22	22.01
	1RB-Middle (37)	841.5 (26965)	21.97	22.16	22.09
		831.5 (26865)	21.94	22.21	22.15
		822.5 (26775)	21.96	22.21	22.17
	1RB-Low (0)	841.5 (26965)	21.89	22.13	22.11
		831.5 (26865)	21.96	22.26	22.13
		822.5 (26775)	21.94	22.21	22.10
	36RB-High (38)	841.5 (26965)	21.83	21.86	20.85
		831.5 (26865)	21.91	21.91	20.86
		822.5 (26775)	21.95	21.97	20.92
	36RB-Middle (19)	841.5 (26965)	21.90	21.94	20.96
		831.5 (26865)	21.93	21.93	20.97
		822.5 (26775)	21.96	21.95	20.98
	36RB-Low (0)	841.5 (26965)	21.98	21.94	20.98
		831.5 (26865)	21.95	21.97	20.93
		822.5 (26775)	21.97	21.98	20.99
	75RB (0)	841.5 (26965)	21.91	21.95	20.89
		831.5 (26865)	21.93	21.95	20.91
		822.5 (26775)	21.99	21.98	20.93

LTE B26-Power Level C1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	64QAM
1.4MHz	1RB-High (5)	848.3 (27033)	24.02	23.17	22.06
		831.5 (26865)	24.09	23.25	22.14
		814.7 (26697)	24.02	23.04	22.13
	1RB-Middle (3)	848.3 (27033)	24.04	23.22	22.09
		831.5 (26865)	24.09	23.29	22.20
		814.7 (26697)	24.03	23.23	22.11
	1RB-Low (0)	848.3 (27033)	24.04	23.20	22.14
		831.5 (26865)	24.11	23.23	22.15
		814.7 (26697)	24.05	23.09	22.14
	3RB-High (3)	848.3 (27033)	24.06	23.05	22.04
		831.5 (26865)	24.10	23.09	22.10
		814.7 (26697)	24.07	22.95	22.08
	3RB-Middle (1)	848.3 (27033)	24.08	23.07	22.15
		831.5 (26865)	24.10	23.03	22.14
		814.7 (26697)	24.03	23.09	22.03
	3RB-Low (0)	848.3 (27033)	24.09	23.09	22.13
		831.5 (26865)	24.10	23.03	22.14
		814.7 (26697)	24.04	23.10	22.02
	6RB (0)	848.3 (27033)	23.07	22.14	20.98
		831.5 (26865)	23.07	22.14	21.02
		814.7 (26697)	23.07	22.10	20.96
3MHz	1RB-High (14)	847.5 (27025)	23.99	23.21	22.11
		831.5 (26865)	24.09	23.31	22.14
		815.5 (26705)	24.19	23.41	22.17
	1RB-Middle (7)	847.5 (27025)	24.04	23.32	22.16
		831.5 (26865)	24.10	23.33	22.29
		815.5 (26705)	24.16	23.34	22.33
	1RB-Low (0)	847.5 (27025)	24.01	23.30	22.42
		831.5 (26865)	24.10	23.29	22.16
		815.5 (26705)	24.19	23.28	22.22
	8RB-High (7)	847.5 (27025)	22.98	22.05	21.04
		831.5 (26865)	23.06	22.17	21.10
		815.5 (26705)	23.11	22.29	21.16
	8RB-Middle (4)	847.5 (27025)	23.02	22.09	21.02
		831.5 (26865)	23.05	22.12	21.05
		815.5 (26705)	23.08	22.15	21.08
	8RB-Low (0)	847.5 (27025)	23.05	22.14	21.05
		831.5 (26865)	23.08	22.14	21.09
		815.5 (26705)	23.11	22.14	21.13
	15RB (0)	847.5 (27025)	23.01	22.03	21.01
		831.5 (26865)	23.07	22.15	21.03
		815.5 (26705)	23.13	22.27	21.05

5MHz	1RB-High (24)	846.5 (27015)	24.03	23.25	22.12	
		831.5 (26865)	24.12	23.25	22.19	
		816.5 (26715)	24.14	23.23	22.20	
	1RB-Middle (12)	846.5 (27015)	24.04	23.20	22.20	
		831.5 (26865)	24.18	23.32	22.24	
		816.5 (26715)	24.12	23.24	22.19	
	1RB-Low (0)	846.5 (27015)	24.10	23.29	22.23	
		831.5 (26865)	24.12	23.30	22.21	
		816.5 (26715)	24.08	23.21	22.17	
	12RB-High (13)	846.5 (27015)	22.93	21.94	20.93	
		831.5 (26865)	23.09	22.04	21.07	
		816.5 (26715)	23.06	22.04	21.07	
	12RB-Middle (6)	846.5 (27015)	23.04	22.05	21.01	
		831.5 (26865)	23.11	22.12	21.07	
		816.5 (26715)	23.06	22.07	21.03	
	12RB-Low (0)	846.5 (27015)	23.12	22.14	21.10	
		831.5 (26865)	23.15	22.11	21.14	
		816.5 (26715)	23.07	22.07	21.07	
	25RB (0)	846.5 (27015)	23.07	22.05	21.02	
		831.5 (26865)	23.09	22.13	21.07	
		816.5 (26715)	23.10	22.09	21.03	
	10MHz	1RB-High (49)	844 (26990)	24.06	23.25	22.06
			831.5 (26865)	24.06	23.24	22.15
			820 (26750)	24.12	23.23	22.16
1RB-Middle (24)		844 (26990)	24.12	23.28	22.17	
		831.5 (26865)	24.15	23.35	22.25	
		820 (26750)	24.12	23.23	22.22	
1RB-Low (0)		844 (26990)	24.10	23.26	22.12	
		831.5 (26865)	24.11	23.29	22.18	
		820 (26750)	24.13	23.28	22.18	
25RB-High (25)		844 (26990)	22.93	21.99	20.93	
		831.5 (26865)	23.06	22.08	21.03	
		820 (26750)	23.07	22.11	21.04	
25RB-Middle (12)		844 (26990)	23.09	22.10	21.06	
		831.5 (26865)	23.08	22.12	21.06	
		820 (26750)	23.10	22.13	21.06	
25RB-Low (0)		844 (26990)	23.16	22.19	21.19	
		831.5 (26865)	23.07	22.07	21.07	
		820 (26750)	23.06	22.06	21.01	
50RB (0)		844 (26990)	23.07	22.07	21.00	
		831.5 (26865)	23.07	22.08	21.05	
		820 (26750)	23.09	22.07	21.05	

15MHz	1RB-High (74)	841.5 (26965)	24.05	23.30	22.20
		831.5 (26865)	24.08	23.29	22.07
		822.5 (26775)	24.15	23.31	22.27
	1RB-Middle (37)	841.5 (26965)	24.21	23.29	22.27
		831.5 (26865)	24.19	23.36	22.27
		822.5 (26775)	24.18	23.33	22.17
	1RB-Low (0)	841.5 (26965)	24.12	23.34	22.24
		831.5 (26865)	24.14	23.38	22.22
		822.5 (26775)	24.14	23.25	22.24
	36RB-High (38)	841.5 (26965)	23.04	22.06	21.06
		831.5 (26865)	23.08	22.11	21.07
		822.5 (26775)	23.13	22.09	21.12
	36RB-Middle (19)	841.5 (26965)	23.15	22.11	21.11
		831.5 (26865)	23.13	22.15	21.12
		822.5 (26775)	23.14	22.15	21.08
	36RB-Low (0)	841.5 (26965)	23.16	22.10	21.13
		831.5 (26865)	23.13	22.13	21.14
		822.5 (26775)	23.10	22.14	21.12
	75RB (0)	841.5 (26965)	23.09	22.12	21.07
		831.5 (26865)	23.16	22.12	21.07
		822.5 (26775)	23.09	22.08	21.11

LTE B41 PC3-Power Level A1/C1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	64QAM
5MHz	1RB-High (24)	2687.5 (41565)	23.04	22.06	20.74
		2640.3(41093)	23.01	22.04	20.71
		2593 (40620)	23.01	22.03	20.70
		2545.8(40148)	23.04	22.05	20.73
		2498.5 (39675)	23.06	22.07	20.75
	1RB-Middle (12)	2687.5 (41565)	23.13	22.08	20.81
		2640.3(41093)	23.06	22.04	20.73
		2593 (40620)	23.13	22.08	20.78
		2545.8(40148)	23.09	22.02	20.80
		2498.5 (39675)	23.14	22.10	20.81
	1RB-Low (0)	2687.5 (41565)	23.08	22.07	20.78
		2640.3(41093)	23.04	22.04	20.74
		2593 (40620)	23.08	22.05	20.77
		2545.8(40148)	23.05	22.06	20.75
		2498.5 (39675)	23.11	22.07	20.79
	12RB-High (13)	2687.5 (41565)	21.94	21.01	20.09
		2640.3(41093)	21.91	21.00	20.06
		2593 (40620)	21.90	20.98	20.05
		2545.8(40148)	21.94	21.02	20.08
		2498.5 (39675)	21.96	21.03	20.11
	12RB-Middle (6)	2687.5 (41565)	21.98	21.06	20.12
		2640.3(41093)	21.91	21.01	20.05
		2593 (40620)	21.90	21.00	20.07
		2545.8(40148)	21.92	21.02	20.09
		2498.5 (39675)	21.94	21.03	20.09
	12RB-Low (0)	2687.5 (41565)	22.02	21.09	20.15
		2640.3(41093)	21.94	21.03	20.10
		2593 (40620)	21.93	21.03	20.09
		2545.8(40148)	21.97	21.07	20.11
		2498.5 (39675)	21.94	21.04	20.10
	25RB (0)	2687.5 (41565)	21.98	21.13	20.15
		2640.3(41093)	21.95	21.11	20.13
2593 (40620)		21.94	21.08	20.13	
2545.8(40148)		21.97	21.12	20.13	
2498.5 (39675)		21.97	21.13	20.15	

10MHz	1RB-High (49)	2685 (41540)	23.02	22.02	20.72
		2639(41080)	22.99	21.98	20.67
		2593 (40620)	22.98	21.99	20.69
		2547(40160)	23.01	22.03	20.70
		2501 (39700)	23.00	22.01	20.69
	1RB-Middle (24)	2685 (41540)	23.09	22.10	20.80
		2639(41080)	23.01	22.04	20.71
		2593 (40620)	23.04	22.09	20.76
		2547(40160)	23.04	22.08	20.77
		2501 (39700)	23.05	22.08	20.77
	1RB-Low (0)	2685 (41540)	23.05	22.07	20.77
		2639(41080)	23.02	22.02	20.72
		2593 (40620)	23.06	22.10	20.76
		2547(40160)	23.04	22.05	20.73
		2501 (39700)	23.04	22.05	20.75
	25RB-High (25)	2685 (41540)	21.93	21.09	20.11
		2639(41080)	21.90	21.04	20.08
		2593 (40620)	21.89	21.06	20.09
		2547(40160)	21.90	21.06	20.13
		2501 (39700)	21.96	21.15	20.16
	25RB-Middle (12)	2685 (41540)	21.98	21.13	20.15
		2639(41080)	21.90	21.04	20.09
		2593 (40620)	21.90	21.06	20.11
		2547(40160)	21.93	21.09	20.13
		2501 (39700)	21.94	21.12	20.13
25RB-Low (0)	2685 (41540)	22.01	21.17	20.20	
	2639(41080)	21.94	21.09	20.12	
	2593 (40620)	21.92	21.08	20.11	
	2547(40160)	21.96	21.12	20.14	
	2501 (39700)	21.88	21.06	20.07	
50RB (0)	2685 (41540)	21.98	21.15	20.12	
	2639(41080)	21.95	21.12	20.08	
	2593 (40620)	21.93	21.10	20.05	
	2547(40160)	21.90	21.09	20.07	
	2501 (39700)	21.97	21.17	20.10	

15MHz	1RB-High (74)	2682.5 (41515)	22.91	21.93	20.65
		2637.8(41068)	22.90	21.93	20.62
		2593 (40620)	22.89	21.90	20.61
		2548.3(40173)	22.93	21.96	20.66
		2503.5 (39725)	22.91	21.95	20.64
	1RB-Middle (37)	2682.5 (41515)	22.98	22.03	20.75
		2637.8(41068)	22.95	21.97	20.73
		2593 (40620)	23.00	22.03	20.75
		2548.3(40173)	23.00	22.02	20.75
		2503.5 (39725)	23.00	22.01	20.75
	1RB-Low (0)	2682.5 (41515)	22.99	22.02	20.72
		2637.8(41068)	22.95	21.97	20.68
		2593 (40620)	22.99	22.03	20.73
		2548.3(40173)	22.94	21.95	20.69
		2503.5 (39725)	22.95	21.97	20.70
	36RB-High (38)	2682.5 (41515)	21.87	21.01	20.02
		2637.8(41068)	21.86	20.98	20.00
		2593 (40620)	21.82	20.98	19.97
		2548.3(40173)	21.83	20.98	20.00
		2503.5 (39725)	21.91	21.06	20.04
	36RB-Middle (19)	2682.5 (41515)	21.94	21.04	20.07
		2637.8(41068)	21.85	20.99	20.01
		2593 (40620)	21.87	21.00	20.01
		2548.3(40173)	21.89	21.02	20.03
		2503.5 (39725)	21.90	21.03	20.02
36RB-Low (0)	2682.5 (41515)	21.95	21.06	20.08	
	2637.8(41068)	21.88	21.02	20.05	
	2593 (40620)	21.86	21.02	20.03	
	2548.3(40173)	21.87	21.04	20.06	
	2503.5 (39725)	21.86	21.00	20.01	
75RB (0)	2682.5 (41515)	21.95	21.10	20.09	
	2637.8(41068)	21.94	21.08	20.06	
	2593 (40620)	21.88	21.05	20.02	
	2548.3(40173)	21.89	21.04	20.06	
	2503.5 (39725)	21.91	21.09	20.07	

20MHz	1RB-High (99)	2680 (41490)	23.03	22.04	20.76
		2636.5(41055)	23.01	22.04	20.73
		2593 (40620)	23.01	22.05	20.73
		2549.5(40185)	23.03	22.07	20.74
		2506 (39750)	23.01	22.04	20.69
	1RB-Middle (50)	2680 (41490)	23.16	22.15	20.89
		2636.5(41055)	23.18	22.13	20.85
		2593 (40620)	23.15	22.16	20.87
		2549.5(40185)	23.14	22.13	20.86
		2506 (39750)	23.10	22.09	20.79
	1RB-Low (0)	2680 (41490)	23.13	22.15	20.86
		2636.5(41055)	23.09	22.11	20.81
		2593 (40620)	23.13	22.16	20.85
		2549.5(40185)	23.06	22.05	20.75
		2506 (39750)	23.05	22.04	20.75
	50RB-High (50)	2680 (41490)	22.03	21.22	20.18
		2636.5(41055)	22.01	21.21	20.16
		2593 (40620)	22.07	21.23	20.19
		2549.5(40185)	22.02	21.21	20.17
		2506 (39750)	22.07	21.25	20.19
	50RB-Middle (25)	2680 (41490)	22.14	21.31	20.27
		2636.5(41055)	22.17	21.25	20.22
		2593 (40620)	22.13	21.24	20.19
		2549.5(40185)	22.10	21.24	20.20
		2506 (39750)	22.11	21.22	20.14
	50RB-Low (0)	2680 (41490)	22.13	21.30	20.27
		2636.5(41055)	22.09	21.30	20.27
		2593 (40620)	22.12	21.28	20.26
		2549.5(40185)	22.08	21.26	20.21
		2506 (39750)	22.05	21.16	20.09
100RB (0)	2680 (41490)	22.09	21.28	20.23	
	2636.5(41055)	22.08	21.27	20.24	
	2593 (40620)	22.09	21.26	20.23	
	2549.5(40185)	22.01	21.18	20.17	
	2506 (39750)	22.03	21.20	20.15	



LTE B41 PC2-Power Level A1/C1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	64QAM
5MHz	1RB-High (24)	2687.5 (41565)	26.10	25.15	23.96
		2640.3(41093)	26.13	25.18	23.97
		2593 (40620)	26.12	25.15	23.94
		2545.8(40148)	26.12	25.18	23.92
		2498.5 (39675)	26.05	25.09	23.87
	1RB-Middle (12)	2687.5 (41565)	26.14	25.20	24.04
		2640.3(41093)	26.12	25.19	24.01
		2593 (40620)	26.18	25.20	24.00
		2545.8(40148)	26.16	25.18	24.02
		2498.5 (39675)	26.10	25.11	23.95
	1RB-Low (0)	2687.5 (41565)	26.14	25.16	23.98
		2640.3(41093)	26.15	25.18	23.96
		2593 (40620)	26.16	25.18	23.98
		2545.8(40148)	26.16	25.17	23.94
		2498.5 (39675)	26.09	25.08	23.90
	12RB-High (13)	2687.5 (41565)	24.95	24.06	23.05
		2640.3(41093)	25.02	24.05	23.05
		2593 (40620)	24.99	24.03	23.00
		2545.8(40148)	25.02	24.03	23.03
		2498.5 (39675)	24.96	23.95	22.97
	12RB-Middle (6)	2687.5 (41565)	25.02	24.08	23.09
		2640.3(41093)	25.03	24.04	23.05
		2593 (40620)	25.04	24.04	23.05
		2545.8(40148)	25.04	24.03	23.06
		2498.5 (39675)	24.97	23.95	22.97
	12RB-Low (0)	2687.5 (41565)	25.05	24.12	23.13
		2640.3(41093)	25.06	24.07	23.10
		2593 (40620)	25.08	24.07	23.09
		2545.8(40148)	25.06	24.06	23.08
		2498.5 (39675)	24.95	23.94	22.97
	25RB (0)	2687.5 (41565)	25.00	24.12	23.09
		2640.3(41093)	25.06	24.11	23.10
2593 (40620)		25.00	24.06	23.03	
2545.8(40148)		25.04	24.10	23.09	
2498.5 (39675)		24.95	24.01	23.00	

10MHz	1RB-High (49)	2685 (41540)	26.14	25.19	23.94
		2639(41080)	26.15	25.20	23.96
		2593 (40620)	26.11	25.17	23.91
		2547(40160)	26.13	25.21	23.94
		2501 (39700)	25.98	25.05	23.80
	1RB-Middle (24)	2685 (41540)	26.18	25.22	23.99
		2639(41080)	26.17	25.23	23.99
		2593 (40620)	26.17	25.24	23.99
		2547(40160)	26.16	25.22	24.00
		2501 (39700)	26.08	25.16	23.91
	1RB-Low (0)	2685 (41540)	26.18	25.24	24.00
		2639(41080)	26.18	25.24	24.00
		2593 (40620)	26.18	25.26	24.00
		2547(40160)	26.12	25.21	23.95
		2501 (39700)	26.07	25.13	23.89
	25RB-High (25)	2685 (41540)	25.08	24.13	23.12
		2639(41080)	25.09	24.10	23.11
		2593 (40620)	25.04	24.07	23.07
		2547(40160)	25.05	24.09	23.12
		2501 (39700)	24.97	24.03	23.01
	25RB-Middle (12)	2685 (41540)	25.13	24.18	23.16
		2639(41080)	25.07	24.12	23.12
		2593 (40620)	25.08	24.14	23.12
		2547(40160)	25.07	24.11	23.13
		2501 (39700)	24.93	23.97	22.98
25RB-Low (0)	2685 (41540)	25.11	24.17	23.16	
	2639(41080)	25.08	24.15	23.11	
	2593 (40620)	25.08	24.16	23.13	
	2547(40160)	25.09	24.14	23.13	
	2501 (39700)	24.91	23.98	22.97	
50RB (0)	2685 (41540)	25.17	24.21	23.12	
	2639(41080)	25.15	24.18	23.10	
	2593 (40620)	25.11	24.15	23.09	
	2547(40160)	25.10	24.11	23.05	
	2501 (39700)	24.98	23.98	22.94	

15MHz	1RB-High (74)	2682.5 (41515)	26.00	25.10	23.87
		2637.8(41068)	26.01	25.11	23.90
		2593 (40620)	25.99	25.09	23.84
		2548.3(40173)	26.02	25.14	23.90
		2503.5 (39725)	25.88	24.98	23.73
	1RB-Middle (37)	2682.5 (41515)	26.09	25.21	23.97
		2637.8(41068)	26.11	25.22	23.98
		2593 (40620)	26.12	25.22	23.99
		2548.3(40173)	26.12	25.21	23.99
		2503.5 (39725)	25.96	25.05	23.84
	1RB-Low (0)	2682.5 (41515)	26.05	25.17	23.93
		2637.8(41068)	26.08	25.17	23.94
		2593 (40620)	26.10	25.20	23.97
		2548.3(40173)	26.04	25.15	23.89
		2503.5 (39725)	25.96	25.05	23.84
	36RB-High (38)	2682.5 (41515)	25.02	24.04	23.01
		2637.8(41068)	25.04	24.03	23.03
		2593 (40620)	24.99	24.00	22.98
		2548.3(40173)	25.03	24.02	22.99
		2503.5 (39725)	24.94	23.91	22.91
	36RB-Middle (19)	2682.5 (41515)	25.05	24.06	23.06
		2637.8(41068)	25.06	24.06	23.04
		2593 (40620)	25.07	24.06	23.06
		2548.3(40173)	25.08	24.06	23.06
		2503.5 (39725)	24.92	23.90	22.88
36RB-Low (0)	2682.5 (41515)	25.08	24.07	23.08	
	2637.8(41068)	25.10	24.07	23.06	
	2593 (40620)	25.08	24.05	23.06	
	2548.3(40173)	25.08	24.05	23.03	
	2503.5 (39725)	24.87	23.85	22.85	
75RB (0)	2682.5 (41515)	25.07	24.09	23.05	
	2637.8(41068)	25.11	24.11	23.10	
	2593 (40620)	25.06	24.03	23.03	
	2548.3(40173)	25.07	24.04	23.03	
	2503.5 (39725)	24.95	23.93	22.91	

20MHz	1RB-High (99)	2680 (41490)	25.99	25.09	23.84
		2636.5(41055)	25.99	25.10	23.86
		2593 (40620)	25.99	25.08	23.83
		2549.5(40185)	26.01	25.11	23.87
		2506 (39750)	25.95	25.04	23.81
	1RB-Middle (50)	2680 (41490)	26.13	25.24	24.00
		2636.5(41055)	26.11	25.19	23.96
		2593 (40620)	26.16	25.23	24.01
		2549.5(40185)	26.11	25.20	23.95
		2506 (39750)	26.06	25.12	23.90
	1RB-Low (0)	2680 (41490)	26.11	25.22	23.97
		2636.5(41055)	26.08	25.16	23.92
		2593 (40620)	26.12	25.21	23.97
		2549.5(40185)	26.01	25.10	23.84
		2506 (39750)	25.97	25.05	23.81
	50RB-High (50)	2680 (41490)	25.05	24.09	23.05
		2636.5(41055)	25.07	24.08	23.03
		2593 (40620)	25.11	24.12	23.08
		2549.5(40185)	25.08	24.11	23.04
		2506 (39750)	25.08	24.10	23.06
	50RB-Middle (25)	2680 (41490)	25.17	24.19	23.15
		2636.5(41055)	25.13	24.13	23.08
		2593 (40620)	25.19	24.14	23.06
		2549.5(40185)	25.09	24.12	23.07
		2506 (39750)	25.06	24.06	23.01
	50RB-Low (0)	2680 (41490)	25.17	24.20	23.14
		2636.5(41055)	25.15	24.21	23.12
		2593 (40620)	25.16	24.18	23.11
		2549.5(40185)	25.14	24.14	23.07
		2506 (39750)	24.97	23.99	22.93
100RB (0)	2680 (41490)	25.12	24.13	23.10	
	2636.5(41055)	25.13	24.15	23.09	
	2593 (40620)	25.08	24.11	23.08	
	2549.5(40185)	25.03	24.04	23.04	
	2506 (39750)	25.00	24.02	22.98	

LTE B66 ANT2-Power Level A1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	64QAM
1.4MHz	1RB-High (5)	1779.3 (132665)	19.95	20.15	20.13
		1745 (132322)	19.93	20.35	20.15
		1710.7 (131979)	19.94	20.39	20.17
	1RB-Middle (3)	1779.3 (132665)	19.98	20.19	20.10
		1745 (132322)	19.97	20.38	20.18
		1710.7 (131979)	20.00	20.36	20.15
	1RB-Low (0)	1779.3 (132665)	19.96	20.20	20.11
		1745 (132322)	19.91	20.23	20.14
		1710.7 (131979)	19.93	20.24	20.13
	3RB-High (3)	1779.3 (132665)	19.96	19.91	20.09
		1745 (132322)	19.95	19.89	20.02
		1710.7 (131979)	19.99	20.03	20.13
	3RB-Middle (1)	1779.3 (132665)	19.97	20.02	20.09
		1745 (132322)	19.96	20.04	20.08
		1710.7 (131979)	19.98	20.02	20.14
	3RB-Low (0)	1779.3 (132665)	19.98	19.89	20.02
		1745 (132322)	19.95	19.92	20.09
		1710.7 (131979)	20.03	19.97	20.13
	6RB (0)	1779.3 (132665)	19.99	20.08	19.96
		1745 (132322)	19.94	20.06	20.00
		1710.7 (131979)	19.98	20.06	19.97
3MHz	1RB-High (14)	1778.5 (132657)	19.97	20.31	20.10
		1745 (132322)	19.90	20.20	20.10
		1711.5 (131987)	19.93	20.35	20.08
	1RB-Middle (7)	1778.5 (132657)	19.96	20.17	20.20
		1745 (132322)	19.93	20.28	20.18
		1711.5 (131987)	19.98	20.38	20.21
	1RB-Low (0)	1778.5 (132657)	19.96	20.28	20.11
		1745 (132322)	19.95	20.19	20.15
		1711.5 (131987)	19.93	20.31	20.17
	8RB-High (7)	1778.5 (132657)	19.95	20.03	19.97
		1745 (132322)	19.89	19.98	19.95
		1711.5 (131987)	19.93	20.03	20.03
	8RB-Middle (4)	1778.5 (132657)	19.93	20.02	20.02
		1745 (132322)	19.93	19.98	19.99
		1711.5 (131987)	19.95	20.03	19.99
	8RB-Low (0)	1778.5 (132657)	19.95	20.08	20.01
		1745 (132322)	19.98	20.06	20.04
		1711.5 (131987)	19.97	20.06	19.99
	15RB (0)	1778.5 (132657)	19.94	20.02	19.98
		1745 (132322)	19.92	19.97	19.94
		1711.5 (131987)	19.97	20.05	20.01

5MHz	1RB-High (24)	1777.5 (132647)	20.01	20.24	20.10
		1745 (132322)	19.96	20.21	20.09
		1712.5 (131997)	20.02	20.35	20.20
	1RB-Middle (12)	1777.5 (132647)	19.96	20.29	20.09
		1745 (132322)	19.94	20.19	20.21
		1712.5 (131997)	20.00	20.28	20.16
	1RB-Low (0)	1777.5 (132647)	19.97	20.27	20.18
		1745 (132322)	19.98	20.37	20.16
		1712.5 (131997)	19.97	20.35	20.24
	12RB-High (13)	1777.5 (132647)	19.95	19.97	20.01
		1745 (132322)	19.90	19.91	19.93
		1712.5 (131997)	20.01	20.02	20.02
	12RB-Middle (6)	1777.5 (132647)	19.98	19.97	20.04
		1745 (132322)	20.01	19.97	20.02
		1712.5 (131997)	19.95	20.00	20.06
	12RB-Low (0)	1777.5 (132647)	20.03	20.07	20.04
		1745 (132322)	20.06	20.02	20.07
		1712.5 (131997)	20.01	20.08	20.05
	25RB (0)	1777.5 (132647)	19.99	20.04	20.00
		1745 (132322)	19.96	19.95	19.99
		1712.5 (131997)	20.03	20.04	20.04
10MHz	1RB-High (49)	1775 (132622)	19.98	20.29	20.10
		1745 (132322)	19.93	20.35	20.13
		1715 (132022)	19.99	20.31	20.15
	1RB-Middle (24)	1775 (132622)	19.97	20.19	20.07
		1745 (132322)	19.98	20.28	20.17
		1715 (132022)	20.03	20.31	20.16
	1RB-Low (0)	1775 (132622)	19.96	20.25	20.03
		1745 (132322)	19.98	20.35	20.14
		1715 (132022)	19.99	20.34	20.07
	25RB-High (25)	1775 (132622)	20.02	20.05	20.01
		1745 (132322)	19.97	19.91	19.97
		1715 (132022)	20.02	20.06	20.03
	25RB-Middle (12)	1775 (132622)	19.95	20.01	19.98
		1745 (132322)	20.02	20.00	20.01
		1715 (132022)	19.97	20.03	20.03
	25RB-Low (0)	1775 (132622)	20.04	20.07	20.06
		1745 (132322)	20.05	20.09	20.10
		1715 (132022)	20.01	20.05	20.04
	50RB (0)	1775 (132622)	20.08	20.06	20.05
		1745 (132322)	20.01	20.03	20.03
		1715 (132022)	20.05	20.06	20.02

15MHz	1RB-High (74)	1772.5 (132597)	19.92	20.17	20.03
		1745 (132322)	19.84	20.20	20.07
		1717.5 (132047)	19.90	20.19	20.05
	1RB-Middle (37)	1772.5 (132597)	19.93	20.31	20.15
		1745 (132322)	19.94	20.25	20.16
		1717.5 (132047)	19.93	20.35	20.17
	1RB-Low (0)	1772.5 (132597)	19.86	20.03	20.02
		1745 (132322)	19.96	20.24	20.21
		1717.5 (132047)	19.92	20.27	20.16
	36RB-High (38)	1772.5 (132597)	19.96	19.99	20.02
		1745 (132322)	19.87	19.87	19.90
		1717.5 (132047)	19.99	20.01	20.02
	36RB-Middle (19)	1772.5 (132597)	19.94	19.99	19.99
		1745 (132322)	19.99	19.98	20.02
		1717.5 (132047)	19.92	19.96	19.98
	36RB-Low (0)	1772.5 (132597)	19.92	19.96	19.99
		1745 (132322)	20.00	20.06	20.07
		1717.5 (132047)	20.00	20.01	20.03
	75RB (0)	1772.5 (132597)	19.98	20.02	20.00
		1745 (132322)	19.98	19.98	19.95
		1717.5 (132047)	20.00	20.00	20.03
20MHz	1RB-High (99)	1770 (132572)	20.06	20.34	20.16
		1745 (132322)	19.99	20.22	20.10
		1720 (132072)	20.09	20.29	20.16
	1RB-Middle (50)	1770 (132572)	20.06	20.29	20.19
		1745 (132322)	20.12	20.48	20.21
		1720 (132072)	20.10	20.33	20.30
	1RB-Low (0)	1770 (132572)	19.99	20.22	20.14
		1745 (132322)	20.07	20.42	20.26
		1720 (132072)	20.04	20.35	20.20
	50RB-High (50)	1770 (132572)	20.08	20.08	20.09
		1745 (132322)	20.04	20.03	20.02
		1720 (132072)	20.18	20.18	20.19
	50RB-Middle (25)	1770 (132572)	20.14	20.14	20.19
		1745 (132322)	20.13	20.18	20.14
		1720 (132072)	20.17	20.15	20.15
	50RB-Low (0)	1770 (132572)	20.17	20.09	20.12
		1745 (132322)	20.21	20.24	20.25
		1720 (132072)	20.19	20.14	20.08
	100RB (0)	1770 (132572)	20.09	20.05	20.10
		1745 (132322)	20.12	20.14	20.14
		1720 (132072)	20.15	20.10	20.13

LTE B66 ANT2-Power Level B1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	64QAM
1.4MHz	1RB-High (5)	1779.3 (132665)	18.93	19.08	19.11
		1745 (132322)	18.87	19.28	19.11
		1710.7 (131979)	18.92	19.20	19.10
	1RB-Middle (3)	1779.3 (132665)	18.94	19.14	19.06
		1745 (132322)	18.94	19.28	19.14
		1710.7 (131979)	18.93	19.23	19.08
	1RB-Low (0)	1779.3 (132665)	18.92	19.22	19.09
		1745 (132322)	18.89	19.12	19.14
		1710.7 (131979)	18.91	19.22	19.13
	3RB-High (3)	1779.3 (132665)	18.93	18.92	19.07
		1745 (132322)	18.86	18.88	18.97
		1710.7 (131979)	18.95	18.98	19.11
	3RB-Middle (1)	1779.3 (132665)	18.96	18.98	19.05
		1745 (132322)	18.94	18.97	19.06
		1710.7 (131979)	18.92	18.96	19.10
	3RB-Low (0)	1779.3 (132665)	18.90	18.96	19.04
		1745 (132322)	18.95	18.97	19.01
		1710.7 (131979)	18.95	18.87	19.02
	6RB (0)	1779.3 (132665)	18.93	18.97	18.88
		1745 (132322)	18.92	19.01	18.91
		1710.7 (131979)	18.98	19.01	18.94
3MHz	1RB-High (14)	1778.5 (132657)	18.92	19.20	19.10
		1745 (132322)	18.89	19.14	19.10
		1711.5 (131987)	18.93	19.33	19.18
	1RB-Middle (7)	1778.5 (132657)	18.96	19.16	19.11
		1745 (132322)	18.94	19.27	19.08
		1711.5 (131987)	18.89	19.22	19.05
	1RB-Low (0)	1778.5 (132657)	18.92	19.21	19.09
		1745 (132322)	18.90	19.30	19.10
		1711.5 (131987)	18.91	19.23	19.15
	8RB-High (7)	1778.5 (132657)	18.91	19.01	18.95
		1745 (132322)	18.91	18.96	18.87
		1711.5 (131987)	18.90	19.02	18.94
	8RB-Middle (4)	1778.5 (132657)	18.90	19.01	18.96
		1745 (132322)	18.89	18.98	18.91
		1711.5 (131987)	18.92	19.02	18.99
	8RB-Low (0)	1778.5 (132657)	18.95	18.99	18.98
		1745 (132322)	18.94	19.01	18.94
		1711.5 (131987)	18.93	19.03	18.99
	15RB (0)	1778.5 (132657)	18.93	18.96	18.93
		1745 (132322)	18.88	18.92	18.88
		1711.5 (131987)	18.93	18.96	18.94



5MHz	1RB-High (24)	1777.5 (132647)	18.94	19.18	19.15
		1745 (132322)	18.96	19.29	19.09
		1712.5 (131997)	19.04	19.37	19.14
	1RB-Middle (12)	1777.5 (132647)	18.98	19.31	19.15
		1745 (132322)	18.96	19.32	19.05
		1712.5 (131997)	18.99	19.35	19.16
	1RB-Low (0)	1777.5 (132647)	18.96	19.14	19.07
		1745 (132322)	18.98	19.30	19.17
		1712.5 (131997)	19.00	19.31	19.16
	12RB-High (13)	1777.5 (132647)	18.97	18.92	18.99
		1745 (132322)	18.88	18.83	18.91
		1712.5 (131997)	18.99	18.93	19.02
	12RB-Middle (6)	1777.5 (132647)	18.92	18.98	18.98
		1745 (132322)	18.95	19.00	18.98
		1712.5 (131997)	19.00	18.99	18.99
	12RB-Low (0)	1777.5 (132647)	18.95	19.01	19.05
		1745 (132322)	19.00	19.03	19.06
		1712.5 (131997)	18.99	18.98	19.01
25RB (0)	1777.5 (132647)	18.97	18.98	18.98	
	1745 (132322)	18.90	18.95	18.97	
	1712.5 (131997)	19.01	19.00	19.00	
10MHz	1RB-High (49)	1775 (132622)	19.02	19.19	19.11
		1745 (132322)	18.98	19.15	19.08
		1715 (132022)	18.99	19.40	19.10
	1RB-Middle (24)	1775 (132622)	19.01	19.20	19.08
		1745 (132322)	19.00	19.29	19.25
		1715 (132022)	19.03	19.40	19.16
	1RB-Low (0)	1775 (132622)	18.98	19.13	19.12
		1745 (132322)	19.01	19.31	19.15
		1715 (132022)	19.01	19.44	19.22
	25RB-High (25)	1775 (132622)	19.03	19.03	19.00
		1745 (132322)	18.98	18.98	18.96
		1715 (132022)	19.05	19.02	19.02
	25RB-Middle (12)	1775 (132622)	19.00	19.01	18.97
		1745 (132322)	19.01	19.02	19.00
		1715 (132022)	18.99	18.99	18.99
	25RB-Low (0)	1775 (132622)	18.99	19.06	19.05
		1745 (132322)	19.07	19.10	19.11
		1715 (132022)	19.00	19.01	19.06
50RB (0)	1775 (132622)	19.07	19.07	19.04	
	1745 (132322)	18.99	19.05	19.03	
	1715 (132022)	19.06	19.03	19.03	

15MHz	1RB-High (74)	1772.5 (132597)	19.04	19.17	19.20
		1745 (132322)	18.94	19.26	19.13
		1717.5 (132047)	19.00	19.27	19.13
	1RB-Middle (37)	1772.5 (132597)	19.05	19.33	19.19
		1745 (132322)	19.08	19.42	19.23
		1717.5 (132047)	19.02	19.30	19.22
	1RB-Low (0)	1772.5 (132597)	18.94	19.29	19.11
		1745 (132322)	19.03	19.36	19.19
		1717.5 (132047)	19.00	19.36	19.26
	36RB-High (38)	1772.5 (132597)	19.04	19.02	19.02
		1745 (132322)	18.94	18.98	18.96
		1717.5 (132047)	19.03	19.03	19.03
	36RB-Middle (19)	1772.5 (132597)	19.06	19.05	19.04
		1745 (132322)	19.07	19.06	19.09
		1717.5 (132047)	19.01	19.07	19.03
	36RB-Low (0)	1772.5 (132597)	19.08	19.05	19.02
		1745 (132322)	19.11	19.08	19.05
		1717.5 (132047)	19.04	19.05	19.01
	75RB (0)	1772.5 (132597)	19.06	19.02	18.97
		1745 (132322)	19.07	19.03	18.98
		1717.5 (132047)	19.08	19.03	19.02
20MHz	1RB-High (99)	1770 (132572)	19.19	19.46	19.22
		1745 (132322)	19.11	19.44	19.12
		1720 (132072)	19.16	19.40	19.26
	1RB-Middle (50)	1770 (132572)	19.33	19.31	19.25
		1745 (132322)	19.40	19.49	19.29
		1720 (132072)	19.37	19.39	19.23
	1RB-Low (0)	1770 (132572)	19.15	19.30	19.10
		1745 (132322)	19.19	19.34	19.22
		1720 (132072)	19.14	19.42	19.25
	50RB-High (50)	1770 (132572)	19.19	19.09	19.06
		1745 (132322)	19.15	19.09	19.04
		1720 (132072)	19.24	19.17	19.17
	50RB-Middle (25)	1770 (132572)	19.21	19.22	19.15
		1745 (132322)	19.22	19.21	19.15
		1720 (132072)	19.21	19.19	19.10
	50RB-Low (0)	1770 (132572)	19.20	19.13	19.09
		1745 (132322)	19.33	19.32	19.26
		1720 (132072)	19.14	19.13	19.07
100RB (0)	1770 (132572)	19.21	19.12	19.09	
	1745 (132322)	19.22	19.16	19.11	
	1720 (132072)	19.21	19.14	19.11	

LTE B66 ANT2-Power Level C1/D1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	64QAM
1.4MHz	1RB-High (5)	1779.3 (132665)	21.01	21.35	21.23
		1745 (132322)	20.96	21.18	21.21
		1710.7 (131979)	21.00	21.31	21.14
	1RB-Middle (3)	1779.3 (132665)	21.03	21.30	21.17
		1745 (132322)	21.01	21.34	21.21
		1710.7 (131979)	21.01	21.39	21.20
	1RB-Low (0)	1779.3 (132665)	21.00	21.30	21.15
		1745 (132322)	20.99	21.25	21.12
		1710.7 (131979)	20.99	21.44	21.27
	3RB-High (3)	1779.3 (132665)	21.04	21.04	21.13
		1745 (132322)	20.96	20.91	21.14
		1710.7 (131979)	21.05	20.98	21.17
	3RB-Middle (1)	1779.3 (132665)	21.01	21.06	21.15
		1745 (132322)	21.00	20.99	21.11
		1710.7 (131979)	21.05	21.00	21.15
	3RB-Low (0)	1779.3 (132665)	21.02	20.98	21.13
		1745 (132322)	20.99	20.96	21.09
		1710.7 (131979)	21.04	20.97	21.15
	6RB (0)	1779.3 (132665)	21.05	21.10	20.99
		1745 (132322)	21.05	21.13	21.00
		1710.7 (131979)	21.04	21.12	21.01
3MHz	1RB-High (14)	1778.5 (132657)	20.98	21.19	21.22
		1745 (132322)	20.99	21.31	21.20
		1711.5 (131987)	21.00	21.32	21.15
	1RB-Middle (7)	1778.5 (132657)	21.03	21.21	21.15
		1745 (132322)	20.99	21.30	21.21
		1711.5 (131987)	21.03	21.28	21.27
	1RB-Low (0)	1778.5 (132657)	21.00	21.32	21.18
		1745 (132322)	20.98	21.32	21.24
		1711.5 (131987)	20.99	21.30	21.18
	8RB-High (7)	1778.5 (132657)	21.01	21.10	21.07
		1745 (132322)	20.94	20.98	21.02
		1711.5 (131987)	21.01	21.08	21.06
	8RB-Middle (4)	1778.5 (132657)	20.99	21.10	21.05
		1745 (132322)	20.94	21.04	20.98
		1711.5 (131987)	21.02	21.08	21.07
	8RB-Low (0)	1778.5 (132657)	21.01	21.12	21.03
		1745 (132322)	21.02	21.09	21.05
		1711.5 (131987)	21.00	21.10	21.08
	15RB (0)	1778.5 (132657)	20.98	21.01	21.03
		1745 (132322)	20.94	21.00	20.98
		1711.5 (131987)	21.02	21.05	21.06

5MHz	1RB-High (24)	1777.5 (132647)	21.02	21.34	21.25
		1745 (132322)	21.01	21.27	21.18
		1712.5 (131997)	21.08	21.42	21.28
	1RB-Middle (12)	1777.5 (132647)	21.05	21.35	21.29
		1745 (132322)	21.01	21.37	21.24
		1712.5 (131997)	21.02	21.40	21.24
	1RB-Low (0)	1777.5 (132647)	21.01	21.39	21.22
		1745 (132322)	21.04	21.32	21.23
		1712.5 (131997)	21.07	21.36	21.18
	12RB-High (13)	1777.5 (132647)	21.02	20.99	21.05
		1745 (132322)	20.94	20.94	20.98
		1712.5 (131997)	21.02	21.05	21.06
	12RB-Middle (6)	1777.5 (132647)	21.02	21.06	21.04
		1745 (132322)	21.01	21.06	21.04
		1712.5 (131997)	21.04	21.07	21.04
	12RB-Low (0)	1777.5 (132647)	21.04	21.03	21.08
		1745 (132322)	21.11	21.09	21.11
		1712.5 (131997)	21.10	21.09	21.13
25RB (0)	1777.5 (132647)	21.07	21.06	21.03	
	1745 (132322)	21.02	21.01	21.02	
	1712.5 (131997)	21.07	21.09	21.09	
10MHz	1RB-High (49)	1775 (132622)	21.01	21.24	21.16
		1745 (132322)	20.96	21.38	21.09
		1715 (132022)	21.02	21.40	21.17
	1RB-Middle (24)	1775 (132622)	21.01	21.21	21.22
		1745 (132322)	21.03	21.36	21.27
		1715 (132022)	21.09	21.32	21.21
	1RB-Low (0)	1775 (132622)	21.00	21.25	21.14
		1745 (132322)	21.01	21.33	21.22
		1715 (132022)	21.03	21.46	21.14
	25RB-High (25)	1775 (132622)	21.01	21.07	21.05
		1745 (132322)	21.01	20.98	21.00
		1715 (132022)	21.06	21.11	21.12
	25RB-Middle (12)	1775 (132622)	21.04	21.04	21.03
		1745 (132322)	21.05	21.03	21.09
		1715 (132022)	21.01	21.07	21.06
	25RB-Low (0)	1775 (132622)	21.10	21.12	21.12
		1745 (132322)	21.07	21.11	21.15
		1715 (132022)	21.06	21.09	21.09
50RB (0)	1775 (132622)	21.09	21.10	21.09	
	1745 (132322)	21.07	21.06	21.06	
	1715 (132022)	21.09	21.10	21.10	

15MHz	1RB-High (74)	1772.5 (132597)	20.96	21.17	21.16
		1745 (132322)	20.91	21.37	21.14
		1717.5 (132047)	20.93	21.26	21.13
	1RB-Middle (37)	1772.5 (132597)	21.02	21.38	21.18
		1745 (132322)	20.98	21.42	21.15
		1717.5 (132047)	21.03	21.44	21.18
	1RB-Low (0)	1772.5 (132597)	20.92	21.23	21.03
		1745 (132322)	21.00	21.27	21.17
		1717.5 (132047)	20.95	21.35	21.12
	36RB-High (38)	1772.5 (132597)	21.00	21.03	21.01
		1745 (132322)	20.95	20.95	20.95
		1717.5 (132047)	21.02	21.05	21.05
	36RB-Middle (19)	1772.5 (132597)	20.98	21.02	21.04
		1745 (132322)	21.03	21.04	21.03
		1717.5 (132047)	21.01	21.05	21.07
	36RB-Low (0)	1772.5 (132597)	21.04	21.01	21.01
		1745 (132322)	21.09	21.08	21.11
		1717.5 (132047)	21.01	20.98	21.02
	75RB (0)	1772.5 (132597)	20.99	21.02	21.02
		1745 (132322)	20.97	21.00	20.97
		1717.5 (132047)	21.04	21.04	21.00
20MHz	1RB-High (99)	1770 (132572)	21.05	21.38	21.10
		1745 (132322)	21.03	21.39	21.12
		1720 (132072)	21.13	21.32	21.27
	1RB-Middle (50)	1770 (132572)	21.09	21.33	21.19
		1745 (132322)	21.48	21.38	21.36
		1720 (132072)	21.12	21.39	21.33
	1RB-Low (0)	1770 (132572)	20.99	21.34	21.18
		1745 (132322)	21.11	21.45	21.29
		1720 (132072)	21.05	21.43	21.28
	50RB-High (50)	1770 (132572)	21.11	21.09	21.07
		1745 (132322)	21.12	21.08	21.10
		1720 (132072)	21.21	21.20	21.19
	50RB-Middle (25)	1770 (132572)	21.15	21.17	21.16
		1745 (132322)	21.19	21.22	21.22
		1720 (132072)	21.15	21.16	21.20
	50RB-Low (0)	1770 (132572)	21.09	21.15	21.12
		1745 (132322)	21.45	21.27	21.28
		1720 (132072)	21.11	21.16	21.16
	100RB (0)	1770 (132572)	21.12	21.12	21.16
		1745 (132322)	21.17	21.14	21.16
		1720 (132072)	21.18	21.18	21.16

LTE B71-Power Level A1/C1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	64QAM
5MHz	1RB-High (24)	695.5 (133447)	23.37	22.43	21.47
		680.5 (133297)	23.35	22.52	21.54
		665.5 (133147)	23.44	22.54	21.48
	1RB-Middle (12)	695.5 (133447)	23.36	22.58	21.41
		680.5 (133297)	23.40	22.59	21.54
		665.5 (133147)	23.46	22.60	21.58
	1RB-Low (0)	695.5 (133447)	23.35	22.61	21.50
		680.5 (133297)	23.38	22.57	21.46
		665.5 (133147)	23.47	22.76	21.61
	12RB-High (13)	695.5 (133447)	23.38	22.39	21.37
		680.5 (133297)	23.39	22.36	21.47
		665.5 (133147)	23.50	22.35	21.50
	12RB-Middle (6)	695.5 (133447)	23.39	22.38	21.46
		680.5 (133297)	23.42	22.39	21.42
		665.5 (133147)	23.48	22.49	21.47
	12RB-Low (0)	695.5 (133447)	23.37	22.35	21.44
		680.5 (133297)	23.40	22.42	21.39
		665.5 (133147)	23.49	22.46	21.54
	25RB (0)	695.5 (133447)	22.35	21.41	20.32
		680.5 (133297)	22.39	21.41	20.32
		665.5 (133147)	22.45	21.50	20.35
10MHz	1RB-High (49)	693 (132422)	23.41	22.62	21.48
		680.5 (133297)	23.40	22.64	21.60
		668 (133172)	23.48	22.72	21.49
	1RB-Middle (24)	693 (132422)	23.44	22.61	21.47
		680.5 (133297)	23.44	22.61	21.45
		668 (133172)	23.52	22.67	21.57
	1RB-Low (0)	693 (132422)	23.40	22.67	21.52
		680.5 (133297)	23.42	22.63	21.58
		668 (133172)	23.51	22.75	21.56
	25RB-High (25)	693 (132422)	22.37	21.46	20.39
		680.5 (133297)	22.41	21.45	20.37
		668 (133172)	22.43	21.47	20.40
	25RB-Middle (12)	693 (132422)	22.32	21.39	20.37
		680.5 (133297)	22.35	21.41	20.36
		668 (133172)	22.45	21.48	20.43
	25RB-Low (0)	693 (132422)	22.36	21.43	20.37
		680.5 (133297)	22.38	21.46	20.38
		668 (133172)	22.44	21.47	20.42
	50RB (0)	693 (132422)	22.39	21.40	20.37
		680.5 (133297)	22.37	21.43	20.38
		668 (133172)	22.43	21.46	20.41

15MHz	1RB-High (74)	690.5 (133397)	23.43	22.51	21.49
		680.5 (133297)	23.42	22.61	21.45
		670.5 (133197)	23.52	22.64	21.63
	1RB-Middle (37)	690.5 (133397)	23.37	22.64	21.47
		680.5 (133297)	23.49	22.67	21.49
		670.5 (133197)	23.56	22.69	21.63
	1RB-Low (0)	690.5 (133397)	23.47	22.67	21.47
		680.5 (133297)	23.49	22.71	21.65
		670.5 (133197)	23.55	22.69	21.66
	36RB-High (38)	690.5 (133397)	22.39	21.37	20.36
		680.5 (133297)	22.38	21.40	20.41
		670.5 (133197)	22.43	21.38	20.38
	36RB-Middle (19)	690.5 (133397)	22.35	21.34	20.35
		680.5 (133297)	22.40	21.37	20.32
		670.5 (133197)	22.43	21.36	20.41
	36RB-Low (0)	690.5 (133397)	22.39	21.34	20.40
		680.5 (133297)	22.40	21.40	20.37
		670.5 (133197)	22.44	21.39	20.43
	75RB (0)	690.5 (133397)	22.42	21.39	20.37
		680.5 (133297)	22.42	21.40	20.38
		670.5 (133197)	22.48	21.40	20.45
20MHz	1RB-High (99)	688 (133372)	23.42	22.56	21.45
		683 (133322)	23.40	22.62	21.45
		673 (133222)	23.42	22.64	21.52
	1RB-Middle (50)	688 (133372)	23.59	22.73	21.55
		683 (133322)	23.53	22.74	21.64
		673 (133222)	23.61	22.82	21.76
	1RB-Low (0)	688 (133372)	23.54	22.70	21.58
		683 (133322)	23.58	22.81	21.59
		673 (133222)	23.64	22.73	21.77
	50RB-High (50)	688 (133372)	22.42	21.42	20.38
		683 (133322)	22.57	21.54	20.48
		673 (133222)	22.57	21.51	20.50
	50RB-Middle (25)	688 (133372)	22.55	21.52	20.49
		683 (133322)	22.57	21.54	20.50
		673 (133222)	22.58	21.58	20.55
	50RB-Low (0)	688 (133372)	22.53	21.52	20.46
		683 (133322)	22.52	21.56	20.47
		673 (133222)	22.49	21.50	20.45
	100RB (0)	688 (133372)	22.49	21.40	20.41
		683 (133322)	22.52	21.49	20.47
		673 (133222)	22.52	21.52	20.48

LTE B2 ANT1-Power Level B1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	64QAM
1.4MHz	1RB-High (5)	1909.3 (19193)	22.71	21.52	20.00
		1880 (18900)	22.53	21.71	20.74
		1850.7 (18607)	22.49	21.47	20.48
	1RB-Middle (3)	1909.3 (19193)	22.49	21.71	20.65
		1880 (18900)	22.78	21.55	20.61
		1850.7 (18607)	22.80	21.95	20.69
	1RB-Low (0)	1909.3 (19193)	22.58	21.67	20.81
		1880 (18900)	22.48	21.65	20.53
		1850.7 (18607)	22.62	21.96	20.52
	3RB-High (3)	1909.3 (19193)	21.53	20.57	19.29
		1880 (18900)	21.14	20.27	19.11
		1850.7 (18607)	21.59	20.65	19.58
	3RB-Middle (1)	1909.3 (19193)	21.80	20.82	19.83
		1880 (18900)	21.39	20.77	19.24
		1850.7 (18607)	21.62	20.58	19.72
	3RB-Low (0)	1909.3 (19193)	21.42	20.76	19.24
		1880 (18900)	21.58	20.54	19.21
		1850.7 (18607)	21.88	21.02	19.88
	6RB (0)	1909.3 (19193)	21.37	20.60	19.48
		1880 (18900)	21.55	20.19	19.40
		1850.7 (18607)	22.01	20.55	19.77
3MHz	1RB-High (14)	1908.5 (19185)	22.87	21.82	20.07
		1880 (18900)	22.64	21.64	20.52
		1851.5 (18615)	22.66	21.69	20.82
	1RB-Middle (7)	1908.5 (19185)	22.51	21.57	20.57
		1880 (18900)	22.49	21.90	20.79
		1851.5 (18615)	22.71	21.57	20.86
	1RB-Low (0)	1908.5 (19185)	22.46	21.96	20.87
		1880 (18900)	22.49	21.66	20.83
		1851.5 (18615)	22.55	21.95	20.74
	8RB-High (7)	1908.5 (19185)	21.77	20.56	19.66
		1880 (18900)	21.20	20.30	19.43
		1851.5 (18615)	21.86	20.88	19.84
	8RB-Middle (4)	1908.5 (19185)	21.56	20.49	19.73
		1880 (18900)	21.69	20.65	19.35
		1851.5 (18615)	21.49	20.76	19.91
	8RB-Low (0)	1908.5 (19185)	21.77	20.75	19.39
		1880 (18900)	21.56	20.43	19.65
		1851.5 (18615)	21.91	20.83	20.02
	15RB (0)	1908.5 (19185)	21.53	20.26	19.46
		1880 (18900)	21.26	20.60	19.30
		1851.5 (18615)	21.76	20.51	19.58



5MHz	1RB-High (24)	1907.5 (19175)	22.45	21.66	20.08	
		1880 (18900)	22.53	21.83	20.48	
		1852.5 (18625)	22.75	21.51	20.45	
	1RB-Middle (12)	1907.5 (19175)	22.47	21.74	20.73	
		1880 (18900)	22.54	21.74	20.68	
		1852.5 (18625)	22.57	21.68	20.79	
	1RB-Low (0)	1907.5 (19175)	22.52	21.98	20.90	
		1880 (18900)	22.70	21.55	20.83	
		1852.5 (18625)	22.41	21.73	20.62	
	12RB-High (13)	1907.5 (19175)	21.72	20.36	19.56	
		1880 (18900)	21.37	20.12	19.52	
		1852.5 (18625)	21.68	20.70	19.46	
	12RB-Middle (6)	1907.5 (19175)	21.67	20.58	19.81	
		1880 (18900)	21.82	20.43	19.32	
		1852.5 (18625)	21.86	20.85	19.90	
	12RB-Low (0)	1907.5 (19175)	21.73	20.47	19.27	
		1880 (18900)	21.27	20.66	19.63	
		1852.5 (18625)	21.79	21.05	19.71	
	25RB (0)	1907.5 (19175)	21.63	20.68	19.55	
		1880 (18900)	21.20	20.33	19.45	
		1852.5 (18625)	22.03	20.50	19.80	
	10MHz	1RB-High (49)	1905 (19150)	22.73	21.83	20.02
			1880 (18900)	22.58	21.89	20.52
			1855 (18650)	22.67	21.52	20.54
1RB-Middle (24)		1905 (19150)	22.64	21.61	20.51	
		1880 (18900)	22.49	21.75	20.73	
		1855 (18650)	22.46	21.86	20.78	
1RB-Low (0)		1905 (19150)	22.62	21.72	20.77	
		1880 (18900)	22.53	21.76	20.82	
		1855 (18650)	22.59	21.82	20.55	
25RB-High (25)		1905 (19150)	21.34	20.29	19.39	
		1880 (18900)	21.18	20.46	19.56	
		1855 (18650)	21.87	20.76	19.54	
25RB-Middle (12)		1905 (19150)	21.88	20.67	19.85	
		1880 (18900)	21.83	20.59	19.43	
		1855 (18650)	21.52	20.85	19.65	
25RB-Low (0)		1905 (19150)	21.72	20.64	19.44	
		1880 (18900)	21.56	20.54	19.33	
		1855 (18650)	21.80	20.89	19.91	
50RB (0)		1905 (19150)	21.36	20.64	19.39	
		1880 (18900)	21.36	20.45	19.12	
		1855 (18650)	21.67	20.72	19.54	

15MHz	1RB-High (74)	1902.5 (19125)	22.52	21.66	20.13	
		1880 (18900)	22.66	21.94	20.81	
		1857.5 (18675)	22.48	21.79	20.45	
	1RB-Middle (37)	1902.5 (19125)	22.80	21.89	20.48	
		1880 (18900)	22.81	21.80	20.78	
		1857.5 (18675)	22.50	21.66	20.52	
	1RB-Low (0)	1902.5 (19125)	22.70	22.01	20.63	
		1880 (18900)	22.64	21.78	20.84	
		1857.5 (18675)	22.63	21.76	20.55	
	36RB-High (38)	1902.5 (19125)	21.48	20.72	19.36	
		1880 (18900)	21.47	20.57	19.35	
		1857.5 (18675)	21.56	20.86	19.88	
	36RB-Middle (19)	1902.5 (19125)	21.86	20.43	19.78	
		1880 (18900)	21.74	20.75	19.45	
		1857.5 (18675)	21.84	20.90	19.69	
	36RB-Low (0)	1902.5 (19125)	21.41	20.32	19.60	
		1880 (18900)	21.37	20.27	19.38	
		1857.5 (18675)	21.67	20.89	19.61	
	75RB (0)	1902.5 (19125)	21.67	20.31	19.32	
		1880 (18900)	21.39	20.25	19.48	
		1857.5 (18675)	21.83	20.51	19.47	
	20MHz	1RB-High (99)	1900 (19100)	22.71	21.80	20.10
			1880 (18900)	22.69	21.75	20.78
			1860 (18700)	22.71	21.76	20.75
		1RB-Middle (50)	1900 (19100)	22.75	21.82	20.75
			1880 (18900)	22.72	21.78	20.69
			1860 (18700)	22.71	21.78	20.67
1RB-Low (0)		1900 (19100)	22.73	21.81	20.80	
		1880 (18900)	22.69	21.77	20.78	
		1860 (18700)	22.69	21.79	20.80	
50RB-High (50)		1900 (19100)	21.57	20.54	19.53	
		1880 (18900)	21.41	20.39	19.36	
		1860 (18700)	21.80	20.73	19.70	
50RB-Middle (25)		1900 (19100)	21.75	20.69	19.68	
		1880 (18900)	21.69	20.65	19.38	
		1860 (18700)	21.75	20.80	19.80	
50RB-Low (0)		1900 (19100)	21.63	20.59	19.53	
		1880 (18900)	21.52	20.50	19.48	
		1860 (18700)	21.90	20.88	19.85	
100RB (0)		1900 (19100)	21.60	20.55	19.52	
		1880 (18900)	21.45	20.44	19.40	
		1860 (18700)	21.83	20.80	19.77	

LTE B2 ANT1-Power Level D1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	64QAM
1.4MHz	1RB-High (5)	1909.3 (19193)	17.65	17.72	16.97
		1880 (18900)	17.52	17.80	17.70
		1850.7 (18607)	17.64	17.55	17.61
	1RB-Middle (3)	1909.3 (19193)	17.93	17.78	17.63
		1880 (18900)	17.93	17.89	17.46
		1850.7 (18607)	17.67	17.77	17.62
	1RB-Low (0)	1909.3 (19193)	17.81	17.75	17.50
		1880 (18900)	17.81	17.64	17.98
		1850.7 (18607)	17.89	17.49	17.60
	3RB-High (3)	1909.3 (19193)	17.88	17.56	17.61
		1880 (18900)	17.73	17.40	17.73
		1850.7 (18607)	18.05	17.65	17.61
	3RB-Middle (1)	1909.3 (19193)	17.56	17.63	17.50
		1880 (18900)	17.52	17.42	17.79
		1850.7 (18607)	17.90	17.87	17.72
	3RB-Low (0)	1909.3 (19193)	17.76	17.33	17.67
		1880 (18900)	17.58	17.60	17.42
		1850.7 (18607)	17.86	17.80	17.72
	6RB (0)	1909.3 (19193)	17.82	17.31	17.76
		1880 (18900)	17.69	17.34	17.54
		1850.7 (18607)	17.81	17.53	17.50
3MHz	1RB-High (14)	1908.5 (19185)	17.70	17.74	16.98
		1880 (18900)	17.57	17.71	17.63
		1851.5 (18615)	17.76	17.88	17.54
	1RB-Middle (7)	1908.5 (19185)	17.73	17.63	17.80
		1880 (18900)	17.87	17.54	17.91
		1851.5 (18615)	17.86	17.59	17.40
	1RB-Low (0)	1908.5 (19185)	17.67	17.98	17.54
		1880 (18900)	17.79	17.63	17.85
		1851.5 (18615)	17.68	17.73	17.77
	8RB-High (7)	1908.5 (19185)	17.77	17.40	17.29
		1880 (18900)	17.51	17.32	17.50
		1851.5 (18615)	18.08	17.43	17.48
	8RB-Middle (4)	1908.5 (19185)	17.68	17.44	17.77
		1880 (18900)	17.79	17.43	17.75
		1851.5 (18615)	18.00	17.73	17.46
	8RB-Low (0)	1908.5 (19185)	17.86	17.22	17.52
		1880 (18900)	17.62	17.33	17.73
		1851.5 (18615)	18.14	17.71	17.50
	15RB (0)	1908.5 (19185)	17.52	17.33	17.32
		1880 (18900)	17.55	17.31	17.50
		1851.5 (18615)	17.63	17.87	17.69

5MHz	1RB-High (24)	1907.5 (19175)	17.99	17.54	17.25	
		1880 (18900)	17.74	17.47	17.90	
		1852.5 (18625)	17.63	17.69	17.80	
	1RB-Middle (12)	1907.5 (19175)	17.98	17.59	17.92	
		1880 (18900)	17.67	17.62	17.83	
		1852.5 (18625)	17.56	17.64	17.72	
	1RB-Low (0)	1907.5 (19175)	17.85	17.98	17.68	
		1880 (18900)	17.73	17.83	17.72	
		1852.5 (18625)	17.94	17.71	17.85	
	12RB-High (13)	1907.5 (19175)	17.57	17.38	17.63	
		1880 (18900)	17.30	17.53	17.63	
		1852.5 (18625)	17.88	17.75	17.41	
	12RB-Middle (6)	1907.5 (19175)	17.97	17.45	17.71	
		1880 (18900)	17.81	17.41	17.74	
		1852.5 (18625)	17.71	17.47	17.82	
	12RB-Low (0)	1907.5 (19175)	17.48	17.28	17.39	
		1880 (18900)	17.49	17.59	17.70	
		1852.5 (18625)	17.99	17.58	17.35	
	25RB (0)	1907.5 (19175)	17.75	17.47	17.38	
		1880 (18900)	17.33	17.59	17.43	
		1852.5 (18625)	17.74	17.75	17.67	
	10MHz	1RB-High (49)	1905 (19150)	17.84	17.96	17.42
			1880 (18900)	17.77	17.74	17.87
			1855 (18650)	17.74	17.55	17.82
1RB-Middle (24)		1905 (19150)	17.74	17.84	17.48	
		1880 (18900)	17.82	17.70	17.89	
		1855 (18650)	17.53	17.66	17.72	
1RB-Low (0)		1905 (19150)	17.97	17.50	17.65	
		1880 (18900)	17.48	17.55	17.65	
		1855 (18650)	17.57	17.87	17.91	
25RB-High (25)		1905 (19150)	17.73	17.45	17.50	
		1880 (18900)	17.32	17.21	17.49	
		1855 (18650)	18.06	17.72	17.65	
25RB-Middle (12)		1905 (19150)	17.58	17.72	17.74	
		1880 (18900)	17.81	17.22	17.66	
		1855 (18650)	17.67	17.79	17.43	
25RB-Low (0)		1905 (19150)	17.95	17.31	17.80	
		1880 (18900)	17.74	17.22	17.61	
		1855 (18650)	17.90	17.77	17.71	
50RB (0)		1905 (19150)	17.58	17.23	17.35	
		1880 (18900)	17.71	17.43	17.84	
		1855 (18650)	17.90	17.72	17.32	

15MHz	1RB-High (74)	1902.5 (19125)	17.61	17.69	17.17	
		1880 (18900)	17.63	17.66	17.71	
		1857.5 (18675)	17.55	17.91	17.72	
	1RB-Middle (37)	1902.5 (19125)	17.97	17.62	17.83	
		1880 (18900)	17.54	17.50	17.74	
		1857.5 (18675)	17.98	17.76	17.41	
	1RB-Low (0)	1902.5 (19125)	17.66	17.80	17.63	
		1880 (18900)	17.80	17.86	17.82	
		1857.5 (18675)	17.58	17.68	17.67	
	36RB-High (38)	1902.5 (19125)	17.58	17.58	17.36	
		1880 (18900)	17.57	17.14	17.74	
		1857.5 (18675)	17.80	17.68	17.40	
	36RB-Middle (19)	1902.5 (19125)	17.65	17.57	17.53	
		1880 (18900)	17.75	17.51	17.64	
		1857.5 (18675)	17.74	17.54	17.51	
	36RB-Low (0)	1902.5 (19125)	17.93	17.67	17.61	
		1880 (18900)	17.41	17.22	17.46	
		1857.5 (18675)	17.69	17.77	17.76	
	75RB (0)	1902.5 (19125)	17.43	17.68	17.50	
		1880 (18900)	17.67	17.39	17.85	
		1857.5 (18675)	17.77	17.47	17.74	
	20MHz	1RB-High (99)	1900 (19100)	17.80	17.79	17.25
			1880 (18900)	17.78	17.75	17.79
			1860 (18700)	17.80	17.76	17.76
1RB-Middle (50)		1900 (19100)	17.83	17.80	17.76	
		1880 (18900)	17.81	17.77	17.72	
		1860 (18700)	17.80	17.77	17.70	
1RB-Low (0)		1900 (19100)	17.82	17.79	17.80	
		1880 (18900)	17.78	17.76	17.79	
		1860 (18700)	17.78	17.78	17.80	
50RB-High (50)		1900 (19100)	17.71	17.51	17.59	
		1880 (18900)	17.58	17.37	17.69	
		1860 (18700)	17.89	17.64	17.67	
50RB-Middle (25)		1900 (19100)	17.85	17.63	17.68	
		1880 (18900)	17.80	17.39	17.75	
		1860 (18700)	17.85	17.72	17.70	
50RB-Low (0)		1900 (19100)	17.75	17.51	17.69	
		1880 (18900)	17.67	17.47	17.71	
		1860 (18700)	17.97	17.76	17.58	
100RB (0)		1900 (19100)	17.73	17.50	17.61	
		1880 (18900)	17.61	17.41	17.68	
		1860 (18700)	17.91	17.70	17.62	

LTE B66 ANT1-Power Level B1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	64QAM
1.4MHz	1RB-High (5)	1779.3 (132665)	23.65	22.40	20.81
		1745 (132322)	23.65	22.71	21.73
		1710.7 (131979)	23.88	22.63	21.40
	1RB-Middle (3)	1779.3 (132665)	23.67	22.32	21.56
		1745 (132322)	23.77	22.31	21.65
		1710.7 (131979)	23.47	22.36	21.36
	1RB-Low (0)	1779.3 (132665)	23.45	22.72	21.98
		1745 (132322)	23.32	22.78	21.48
		1710.7 (131979)	23.69	22.81	22.09
	3RB-High (3)	1779.3 (132665)	22.52	21.39	20.80
		1745 (132322)	21.97	20.93	20.69
		1710.7 (131979)	22.31	21.54	20.97
	3RB-Middle (1)	1779.3 (132665)	22.65	21.80	20.77
		1745 (132322)	22.82	21.65	20.34
		1710.7 (131979)	22.35	21.62	20.55
	3RB-Low (0)	1779.3 (132665)	22.62	21.66	20.58
		1745 (132322)	22.80	21.52	20.57
		1710.7 (131979)	22.57	22.08	20.86
	6RB (0)	1779.3 (132665)	22.34	21.59	20.42
		1745 (132322)	22.22	21.38	19.98
		1710.7 (131979)	23.13	21.70	20.41
3MHz	1RB-High (14)	1778.5 (132657)	23.46	22.41	20.57
		1745 (132322)	23.38	22.60	21.73
		1711.5 (131987)	23.65	22.52	21.40
	1RB-Middle (7)	1778.5 (132657)	23.75	22.60	21.86
		1745 (132322)	23.79	22.59	21.80
		1711.5 (131987)	23.42	22.67	21.66
	1RB-Low (0)	1778.5 (132657)	23.48	22.72	22.17
		1745 (132322)	23.63	22.62	21.75
		1711.5 (131987)	23.29	22.58	21.70
	8RB-High (7)	1778.5 (132657)	22.42	21.05	20.49
		1745 (132322)	21.98	20.95	20.55
		1711.5 (131987)	22.31	21.81	20.70
	8RB-Middle (4)	1778.5 (132657)	22.56	21.56	20.70
		1745 (132322)	22.79	21.27	19.97
		1711.5 (131987)	22.65	21.71	20.40
	8RB-Low (0)	1778.5 (132657)	22.91	21.63	20.53
		1745 (132322)	23.01	21.46	20.47
		1711.5 (131987)	22.78	22.13	20.41
	15RB (0)	1778.5 (132657)	22.59	21.76	20.34
		1745 (132322)	22.19	21.24	20.08
		1711.5 (131987)	23.11	21.41	20.61

5MHz	1RB-High (24)	1777.5 (132647)	23.34	22.65	20.57
		1745 (132322)	23.62	22.94	21.84
		1712.5 (131997)	23.42	22.69	21.62
	1RB-Middle (12)	1777.5 (132647)	23.77	22.69	21.82
		1745 (132322)	23.61	22.66	21.78
		1712.5 (131997)	23.40	22.66	21.68
	1RB-Low (0)	1777.5 (132647)	23.77	22.78	21.88
		1745 (132322)	23.26	22.58	21.62
		1712.5 (131997)	23.68	22.75	21.72
	12RB-High (13)	1777.5 (132647)	22.39	21.29	20.56
		1745 (132322)	22.34	21.04	20.33
		1712.5 (131997)	22.76	21.42	20.58
	12RB-Middle (6)	1777.5 (132647)	22.50	21.76	20.71
		1745 (132322)	22.63	21.50	20.05
		1712.5 (131997)	22.38	21.76	20.58
	12RB-Low (0)	1777.5 (132647)	22.68	21.58	20.63
		1745 (132322)	22.59	21.43	20.44
		1712.5 (131997)	22.56	21.79	20.61
25RB (0)	1777.5 (132647)	22.36	21.73	20.38	
	1745 (132322)	22.12	21.46	19.96	
	1712.5 (131997)	22.76	21.42	20.72	
10MHz	1RB-High (49)	1775 (132622)	23.49	22.68	20.83
		1745 (132322)	23.28	22.84	21.54
		1715 (132022)	23.45	22.78	21.74
	1RB-Middle (24)	1775 (132622)	23.85	22.51	21.93
		1745 (132322)	23.69	22.55	21.46
		1715 (132022)	23.54	22.60	21.32
	1RB-Low (0)	1775 (132622)	23.39	22.98	21.76
		1745 (132322)	23.50	22.78	21.61
		1715 (132022)	23.71	22.66	22.07
	25RB-High (25)	1775 (132622)	22.30	21.30	20.47
		1745 (132322)	22.32	20.98	20.63
		1715 (132022)	22.57	21.75	20.98
	25RB-Middle (12)	1775 (132622)	22.45	21.80	20.81
		1745 (132322)	22.86	21.51	20.26
		1715 (132022)	22.36	21.39	20.68
	25RB-Low (0)	1775 (132622)	22.90	21.51	20.37
		1745 (132322)	22.58	21.38	20.57
		1715 (132022)	22.55	22.25	20.76
50RB (0)	1775 (132622)	22.60	21.71	20.27	
	1745 (132322)	22.16	21.63	19.88	
	1715 (132022)	23.16	21.68	20.46	

15MHz	1RB-High (74)	1772.5 (132597)	23.62	22.29	20.84	
		1745 (132322)	23.56	22.75	21.62	
		1717.5 (132047)	23.45	22.80	21.46	
	1RB-Middle (37)	1772.5 (132597)	23.62	22.66	21.80	
		1745 (132322)	23.66	22.68	21.61	
		1717.5 (132047)	23.51	22.37	21.64	
	1RB-Low (0)	1772.5 (132597)	23.84	22.65	22.01	
		1745 (132322)	23.35	22.80	21.39	
		1717.5 (132047)	23.76	22.81	21.81	
	36RB-High (38)	1772.5 (132597)	22.35	21.26	20.43	
		1745 (132322)	22.02	20.93	20.35	
		1717.5 (132047)	22.51	21.76	20.82	
	36RB-Middle (19)	1772.5 (132597)	22.73	21.63	20.60	
		1745 (132322)	22.92	21.43	20.16	
		1717.5 (132047)	22.34	21.79	20.51	
	36RB-Low (0)	1772.5 (132597)	22.70	21.97	20.51	
		1745 (132322)	22.73	21.46	20.62	
		1717.5 (132047)	22.74	21.91	20.45	
	75RB (0)	1772.5 (132597)	22.45	21.67	20.27	
		1745 (132322)	22.34	21.45	19.89	
		1717.5 (132047)	22.86	21.73	20.79	
	20MHz	1RB-High (99)	1770 (132572)	23.58	22.50	20.81
			1745 (132322)	23.48	22.84	21.77
			1720 (132072)	23.68	22.73	21.60
		1RB-Middle (50)	1770 (132572)	23.72	22.52	21.85
			1745 (132322)	23.78	22.48	21.71
			1720 (132072)	23.53	22.52	21.53
1RB-Low (0)		1770 (132572)	23.68	22.88	21.98	
		1745 (132322)	23.56	22.68	21.63	
		1720 (132072)	23.56	22.84	21.99	
50RB-High (50)		1770 (132572)	22.47	21.25	20.65	
		1745 (132322)	22.20	21.16	20.54	
		1720 (132072)	22.56	21.67	20.87	
50RB-Middle (25)		1770 (132572)	22.56	21.72	20.85	
		1745 (132322)	22.78	21.49	20.23	
		1720 (132072)	22.46	21.63	20.68	
50RB-Low (0)		1770 (132572)	22.74	21.78	20.47	
		1745 (132322)	22.84	21.53	20.53	
		1720 (132072)	22.76	22.08	20.69	
100RB (0)		1770 (132572)	22.51	21.75	20.36	
		1745 (132322)	22.31	21.49	20.10	
		1720 (132072)	23.01	21.64	20.60	



LTE B66 ANT1-Power Level D1					
BANDWIDTH	Number of RBs	Frequency	QPSK	16QAM	64QAM
1.4MHz	1RB-High (5)	1779.3 (132665)	20.72	20.53	20.36
		1745 (132322)	20.61	20.75	20.59
		1710.7 (131979)	20.30	20.56	20.64
	1RB-Middle (3)	1779.3 (132665)	20.52	20.37	20.55
		1745 (132322)	20.45	20.60	20.56
		1710.7 (131979)	20.23	20.43	20.75
	1RB-Low (0)	1779.3 (132665)	20.65	20.56	20.34
		1745 (132322)	20.82	20.18	20.17
		1710.7 (131979)	20.22	20.47	20.73
	3RB-High (3)	1779.3 (132665)	20.36	20.29	20.54
		1745 (132322)	20.79	21.09	20.60
		1710.7 (131979)	20.61	20.54	20.58
	3RB-Middle (1)	1779.3 (132665)	20.72	20.40	20.47
		1745 (132322)	20.42	20.64	20.62
		1710.7 (131979)	20.55	20.27	20.18
	3RB-Low (0)	1779.3 (132665)	20.75	20.50	20.95
		1745 (132322)	20.89	20.85	20.86
		1710.7 (131979)	20.76	20.68	20.49
	6RB (0)	1779.3 (132665)	20.70	20.22	20.61
		1745 (132322)	20.51	20.61	20.87
		1710.7 (131979)	20.81	20.64	20.67
3MHz	1RB-High (14)	1778.5 (132657)	20.58	20.45	20.19
		1745 (132322)	20.42	20.35	20.25
		1711.5 (131987)	20.16	20.10	20.58
	1RB-Middle (7)	1778.5 (132657)	20.58	20.22	20.69
		1745 (132322)	20.59	20.62	20.86
		1711.5 (131987)	20.52	20.66	20.71
	1RB-Low (0)	1778.5 (132657)	20.64	20.31	20.44
		1745 (132322)	20.78	20.34	19.98
		1711.5 (131987)	20.46	20.13	20.71
	8RB-High (7)	1778.5 (132657)	20.53	20.54	20.66
		1745 (132322)	20.87	20.71	20.54
		1711.5 (131987)	20.84	20.57	20.52
	8RB-Middle (4)	1778.5 (132657)	20.63	20.56	20.44
		1745 (132322)	20.73	20.43	20.67
		1711.5 (131987)	20.75	20.52	20.29
	8RB-Low (0)	1778.5 (132657)	20.28	20.43	20.63
		1745 (132322)	20.78	21.10	20.67
		1711.5 (131987)	20.77	20.61	20.40
	15RB (0)	1778.5 (132657)	20.53	20.24	20.42
		1745 (132322)	20.41	20.92	20.80
		1711.5 (131987)	20.46	20.96	20.84

5MHz	1RB-High (24)	1777.5 (132647)	20.62	20.50	20.38
		1745 (132322)	20.57	20.72	20.27
		1712.5 (131997)	20.20	20.13	20.29
	1RB-Middle (12)	1777.5 (132647)	20.83	20.45	20.42
		1745 (132322)	20.61	20.51	20.87
		1712.5 (131997)	20.29	20.68	20.51
	1RB-Low (0)	1777.5 (132647)	20.71	20.56	20.22
		1745 (132322)	20.52	20.01	20.38
		1712.5 (131997)	20.49	20.16	20.30
	12RB-High (13)	1777.5 (132647)	20.47	20.75	20.57
		1745 (132322)	20.81	21.09	20.64
		1712.5 (131997)	20.84	20.47	20.52
	12RB-Middle (6)	1777.5 (132647)	20.44	20.63	20.40
		1745 (132322)	20.72	20.71	20.39
		1712.5 (131997)	20.57	20.59	20.55
	12RB-Low (0)	1777.5 (132647)	20.66	20.53	20.64
		1745 (132322)	20.67	21.02	20.82
		1712.5 (131997)	20.70	20.41	20.39
	25RB (0)	1777.5 (132647)	20.70	20.60	20.48
		1745 (132322)	20.47	20.96	20.94
		1712.5 (131997)	20.50	20.72	20.56
10MHz	1RB-High (49)	1775 (132622)	20.48	20.26	20.36
		1745 (132322)	20.57	20.77	20.55
		1715 (132022)	20.27	20.35	20.47
	1RB-Middle (24)	1775 (132622)	20.47	20.36	20.46
		1745 (132322)	20.77	20.40	20.66
		1715 (132022)	20.64	20.57	20.55
	1RB-Low (0)	1775 (132622)	20.42	20.46	20.29
		1745 (132322)	20.74	20.02	20.01
		1715 (132022)	20.51	20.09	20.62
	25RB-High (25)	1775 (132622)	20.26	20.44	20.76
		1745 (132322)	20.49	20.95	20.67
		1715 (132022)	20.67	20.47	20.35
	25RB-Middle (12)	1775 (132622)	20.76	20.67	20.68
		1745 (132322)	20.42	20.62	20.37
		1715 (132022)	20.96	20.52	20.51
	25RB-Low (0)	1775 (132622)	20.63	20.53	20.74
		1745 (132322)	20.90	21.07	20.93
		1715 (132022)	20.52	20.54	20.50
	50RB (0)	1775 (132622)	20.39	20.22	20.52
		1745 (132322)	20.47	20.69	20.69
		1715 (132022)	20.66	20.68	20.81

15MHz	1RB-High (74)	1772.5 (132597)	20.37	20.37	20.06
		1745 (132322)	20.74	20.36	20.42
		1717.5 (132047)	20.37	20.21	20.32
	1RB-Middle (37)	1772.5 (132597)	20.55	20.38	20.34
		1745 (132322)	20.60	20.18	20.62
		1717.5 (132047)	20.43	20.80	20.36
	1RB-Low (0)	1772.5 (132597)	20.86	20.77	20.38
		1745 (132322)	20.38	20.45	20.16
		1717.5 (132047)	20.53	20.29	20.54
	36RB-High (38)	1772.5 (132597)	20.08	20.39	20.59
		1745 (132322)	20.87	20.97	20.52
		1717.5 (132047)	20.74	20.28	20.29
	36RB-Middle (19)	1772.5 (132597)	20.34	20.82	20.81
		1745 (132322)	20.53	20.58	20.66
		1717.5 (132047)	20.49	20.43	20.66
	36RB-Low (0)	1772.5 (132597)	20.54	20.70	20.96
		1745 (132322)	20.64	21.00	20.48
		1717.5 (132047)	20.37	20.75	20.40
	75RB (0)	1772.5 (132597)	20.62	20.44	20.27
		1745 (132322)	20.89	20.58	20.90
		1717.5 (132047)	20.73	20.64	20.75
20MHz	1RB-High (99)	1770 (132572)	20.52	20.52	20.34
		1745 (132322)	20.58	20.57	20.52
		1720 (132072)	20.39	20.40	20.54
	1RB-Middle (50)	1770 (132572)	20.71	20.45	20.56
		1745 (132322)	20.75	20.46	20.70
		1720 (132072)	20.53	20.60	20.61
	1RB-Low (0)	1770 (132572)	20.70	20.60	20.32
		1745 (132322)	20.65	20.28	20.28
		1720 (132072)	20.36	20.35	20.54
	50RB-High (50)	1770 (132572)	20.37	20.57	20.61
		1745 (132322)	20.67	20.89	20.54
		1720 (132072)	20.78	20.55	20.55
	50RB-Middle (25)	1770 (132572)	20.64	20.62	20.63
		1745 (132322)	20.72	20.56	20.59
		1720 (132072)	20.78	20.56	20.48
	50RB-Low (0)	1770 (132572)	20.56	20.67	20.81
		1745 (132322)	20.86	20.96	20.75
		1720 (132072)	20.58	20.55	20.50
	100RB (0)	1770 (132572)	20.51	20.40	20.51
		1745 (132322)	20.69	20.86	20.91
		1720 (132072)	20.63	20.81	20.77

Uplink maximum output power is measured with downlink carrier aggregation active, using the channel with highest measured maximum output power when downlink carrier aggregation is inactive. SAR test is not required since maximum output power when downlink carrier aggregation active is not more than ¼ dB higher than the maximum output power measured when downlink carrier aggregation inactive.

The device supports Intra-band uplink LTE Carrier Aggregation (CA) CA\_41C. The conducted power measurement results of LTE CA are provided as follow.

All other uplink communications are identical to the release 8 specifications. Other LTE Rel.10 or higher features are not supported, including Enhanced SC-FDMA or Uplink MIMO etc.

The conducted power measurement results of LTE uplink CA are as below :

CA_41C-PC3										
UL LTE CA Class	PCC				SCC				Power	
	PCC Bandwidth	channel	RB	RB OFFSET	SCC Bandwidth	channel	RB	RB OFFSET	Tune up	conducted power (dBm)
CA_41C	20M	39750	1	99	5M	39867	1	0	24	22.64
CA_41C	15M	39725	1	74	10M	39845	1	0	24	22.81
CA_41C	20M	39750	1	99	10M	39894	1	0	24	22.71
CA_41C	20M	39750	1	99	15M	39921	1	0	24	22.84
CA_41C	20M	39750	1	99	20M	39948	1	0	24	22.78
CA_41C	20M	41490	1	0	5M	41373	1	99	24	22.71
CA_41C	15M	41515	1	0	10M	41395	1	99	24	22.8
CA_41C	20M	41490	1	0	10M	41346	1	99	24	22.78
CA_41C	15M	41515	1	0	15M	41365	1	99	24	22.97
CA_41C	20M	41490	1	0	15M	41319	1	99	24	22.91
CA_41C	20M	41490	1	0	20M	41292	1	99	24	22.82

CA_41C-PC2										
UL LTE CA Class	PCC				SCC				Power	
	PCC Bandwidth	channel	RB	RB OFFSET	SCC Bandwidth	channel	RB	RB OFFSET	Tune up	conducted power (dBm)
CA_41C	20M	39750	1	99	5M	39867	1	0	26.2	25.62
CA_41C	15M	39725	1	74	10M	39845	1	0	26.2	25.94
CA_41C	20M	39750	1	99	10M	39894	1	0	26.2	25.7
CA_41C	20M	39750	1	99	15M	39921	1	0	26.2	25.72
CA_41C	20M	39750	1	99	20M	39948	1	0	26.2	25.74
CA_41C	20M	41490	1	0	5M	41373	1	99	26.2	22.75
CA_41C	15M	41515	1	0	10M	41395	1	99	26.2	25.9
CA_41C	20M	41490	1	0	10M	41346	1	99	26.2	25.78
CA_41C	15M	41515	1	0	15M	41365	1	99	26.2	25.97
CA_41C	20M	41490	1	0	15M	41319	1	99	26.2	25.81
CA_41C	20M	41490	1	0	20M	41292	1	99	26.2	25.83

The conducted power measurement results of LTE downlink CA are as below :

DL LTE CA Class	PCC								SCC			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 (MHz)	SCC DL Channel	Rel 8 LTE Tx Power(dBm)	Rel 10 DL LTE CA Tx Power(dBm)	Tune-up
2A-2A	2	20	50	0	50	0	19100	1100	2	20	700	21.1	20.75	22
2A-4A	2	20	50	0	50	0	18900	900	4	20	2175	21.11	20.76	22
2A-5A	2	20	50	0	50	0	18900	900	5	10	2525	21.11	21.02	22
2A-12A	2	20	50	0	50	0	18900	900	12	10	5095	21.11	20.81	22
2A-66A	2	20	50	0	50	0	18900	900	66	20	66886	21.11	21.09	22
2A-71A	2	20	50	0	50	0	18900	900	71	20	66786	21.11	20.95	22
2C	2	20	50	0	50	0	19100	1100	2	20	902	21.1	20.93	22
4A-4A	4	20	1	50	1	50	19850	1850	4	20	2175	21.48	21.12	22
4A-5A	4	20	1	50	1	50	19850	1850	5	10	2525	21.48	21.19	22
4A-12A	4	20	1	50	1	50	19850	1850	12	10	5095	21.48	21.14	22
4A-71A	4	20	1	50	1	50	19850	1850	71	20	66786	21.48	21.23	22
5A-66A	5	10	1	25	1	35	19850	1850	66	20	66886	24.21	24.01	25
12A-66A	12	10	1	0	1	0	23130	5310	66	20	66886	23.86	23.5	24
25A-25A	25	20	50	0	50	0	26590	8590	25	20	8115	21.22	21.07	21.5
25A-26A	25	20	50	0	50	0	26365	8365	26	20	8865	21.28	21.16	21.5
25A-41A	25	20	50	0	50	0	26365	8365	41	20	40620	21.28	21.24	21.5
25A-25A	25	20	50	0	50	0	26590	8590	25	20	8115	20.19	19.97	21.5
25A-26A	25	20	50	0	50	0	26365	8365	26	20	8865	20.25	20.05	21.5
25A-41A	25	20	50	0	50	0	26365	8365	41	20	40620	20.25	20.14	21.5
41A-41A	41	20	1	50	1	50	39750	3750	41	5	41565	23.1	22.96	24
41C	41	20	1	50	1	50	39750	3750	41	15	39921	23.1	22.97	24
66A-66A	66	20	50	50	50	50	132072	66536	66	20	67036	21.21	21.19	22
66A-71A	66	20	1	50	1	50	132322	66786	66	71	66786	21.48	21.17	22
66B	66	10	25	0	25	0	132362	67086	66	10	66987	21.1	20.74	22
66C	66	20	50	50	50	50	132072	66536	66	20	66734	21.21	21.2	22

#### 11.4 Wi-Fi and BT Measurement result

The maximum output power of BT antenna is 8.76dBm.

The maximum tune up of BT antenna is 9.5dBm.

**The average conducted power for Wi-Fi 2.4G (Head transmit alone) is as following:**

802.11b	
Channel\data rate	1Mbps
11(2462MHz)	17.86
6(2437(MHz))	17.20
1(2412MHz)	17.36
Tune up	18.00
802.11g	
Channel\data rate	6Mbps
11(2462MHz)	17.75
6(2437(MHz))	17.68
1(2412MHz)	17.71
Tune up	18.00
802.11n-20MHz	
Channel\data rate	MCS0
11(2462MHz)	17.95
6(2437(MHz))	17.84
1(2412MHz)	17.87
Tune up	18.00
802.11n-40MHz	
Channel\data rate	MCS0
9(2452MHz)	16.29
6(2437MHz)	16.07
3(2422MHz)	16.02
Tune up	17.00

The average conducted power for Wi-Fi 2.4G (Head transmit with WWAN) is as following:

802.11b	
Channel\data rate	1Mbps
11(2462MHz)	13.58
6(2437(MHz)	12.82
1(2412MHz)	12.98
Tune up	14.00
802.11g	
Channel\data rate	6Mbps
11(2462MHz)	13.48
6(2437(MHz)	12.89
1(2412MHz)	13.10
Tune up	14.00
802.11n-20MHz	
Channel\data rate	MCS0
11(2462MHz)	13.33
6(2437(MHz)	12.75
1(2412MHz)	12.84
Tune up	14.00
802.11n-40MHz	
Channel\data rate	MCS0
9(2452MHz)	11.98
6(2437MHz)	11.76
3(2422MHz)	11.68
Tune up	13.00

The average conducted power for Wi-Fi 2.4G (Body transmit alone) is as following:

802.11b	
Channel\data rate	1Mbps
11(2462MHz)	20.02
6(2437(MHz)	19.34
1(2412MHz)	19.39
Tune up	20.50
802.11g	
Channel\data rate	6Mbps
11(2462MHz)	19.07
6(2437(MHz)	18.48
1(2412MHz)	18.75
Tune up	19.50
802.11n-20MHz	
Channel\data rate	MCS0
11(2462MHz)	18.89
6(2437(MHz)	18.44
1(2412MHz)	18.62
Tune up	19.00
802.11n-40MHz	
Channel\data rate	MCS0
9(2452MHz)	17.49
6(2437MHz)	17.37
3(2422MHz)	17.26
Tune up	18.00



The average conducted power for Wi-Fi 2.4G (Body transmit with WWAN) is as following:

802.11b	
Channel\data rate	1Mbps
11(2462MHz)	17.14
6(2437(MHz)	16.52
1(2412MHz)	16.63
Tune up	17.50
802.11g	
Channel\data rate	6Mbps
11(2462MHz)	17.12
6(2437(MHz)	16.59
1(2412MHz)	16.78
Tune up	17.50
802.11n-20MHz	
Channel\data rate	MCS0
11(2462MHz)	17.01
6(2437(MHz)	16.37
1(2412MHz)	16.67
Tune up	17.50
802.11n-40MHz	
Channel\data rate	MCS0
9(2452MHz)	15.22
6(2437MHz)	15.18
3(2422MHz)	14.89
Tune up	16.00

The average conducted power for Wi-Fi 5G (Head transmit alone) is as following:

802.11a(dBm)	
Channel\data rate	6Mbps
36(5180 MHz)	15.88
40(5200 MHz)	15.81
44(5220 MHz)	15.71
48(5240 MHz)	15.54
52(5260 MHz)	15.33
56(5280 MHz)	15.29
60(5300 MHz)	15.05
64(5320 MHz)	15.45
100(5500 MHz)	15.08
104(5520 MHz)	15.10
108(5540 MHz)	15.08
112(5560 MHz)	14.75
116(5580 MHz)	14.10
120(5600 MHz)	13.94
124(5620 MHz)	13.65
128(5640 MHz)	13.80
132(5660 MHz)	14.92
136(5680 MHz)	15.35
140(5700 MHz)	15.65
144(5720 MHz)	15.76
Tune up	16.00
149(5745 MHz)	14.75
153(5765 MHz)	14.22
157(5785 MHz)	14.12
161(5805 MHz)	13.75
165(5825 MHz)	14.57
Tune up	15.00

The average conducted power for Wi-Fi 5G (Head transmit with WWAN) is as following:

802.11a(dBm)	
Channel\data rate	6Mbps
36(5180 MHz)	10.93
40(5200 MHz)	11.09
44(5220 MHz)	11.02
48(5240 MHz)	10.68
52(5260 MHz)	11.19
56(5280 MHz)	11.03
60(5300 MHz)	11.06
64(5320 MHz)	11.16
Tune up	11.20
100(5500 MHz)	10.52
104(5520 MHz)	10.94
108(5540 MHz)	11.17
112(5560 MHz)	11.28
116(5580 MHz)	10.95
120(5600 MHz)	10.57
124(5620 MHz)	10.53
128(5640 MHz)	10.55
132(5660 MHz)	11.13
136(5680 MHz)	11.62
140(5700 MHz)	12.05
144(5720 MHz)	12.37
Tune up	12.50
149(5745 MHz)	11.35
153(5765 MHz)	10.86
157(5785 MHz)	10.47
161(5805 MHz)	10.30
165(5825 MHz)	10.47
Tune up	12.00

The average conducted power for Wi-Fi 5G (Body transmit alone) is as following:

802.11a(dBm)	
Channel\data rate	6Mbps
36(5180 MHz)	17.91
40(5200 MHz)	17.98
44(5220 MHz)	17.96
48(5240 MHz)	17.91
52(5260 MHz)	17.95
56(5280 MHz)	17.46
60(5300 MHz)	17.41
64(5320 MHz)	18.10
Tune up	18.30
100(5500 MHz)	17.26
104(5520 MHz)	17.69
108(5540 MHz)	17.97
112(5560 MHz)	17.78
116(5580 MHz)	17.36
120(5600 MHz)	17.22
124(5620 MHz)	17.07
128(5640 MHz)	17.08
132(5660 MHz)	17.69
136(5680 MHz)	18.20
140(5700 MHz)	18.77
144(5720 MHz)	18.75
Tune up	18.80
149(5745 MHz)	17.97
153(5765 MHz)	17.78
157(5785 MHz)	16.99
161(5805 MHz)	17.01
165(5825 MHz)	17.17
Tune up	18.00

The average conducted power for Wi-Fi 5G (Body transmit with WWAN) is as following:

802.11a(dBm)	
Channel\data rate	6Mbps
36(5180 MHz)	12.58
40(5200 MHz)	12.96
44(5220 MHz)	12.75
48(5240 MHz)	12.42
52(5260 MHz)	12.20
56(5280 MHz)	11.92
60(5300 MHz)	11.96
64(5320 MHz)	11.92
Tune up	13.50
100(5500 MHz)	11.29
104(5520 MHz)	11.89
108(5540 MHz)	12.10
112(5560 MHz)	12.15
116(5580 MHz)	11.64
120(5600 MHz)	11.24
124(5620 MHz)	11.10
128(5640 MHz)	11.13
132(5660 MHz)	11.89
136(5680 MHz)	12.42
140(5700 MHz)	12.97
144(5720 MHz)	12.80
149(5745 MHz)	12.16
153(5765 MHz)	11.73
157(5785 MHz)	11.36
161(5805 MHz)	11.08
165(5825 MHz)	11.37
Tune up	13.00

## 11.5 5G NR Measurement result

### Maximum Target Power for Production Unit

Band	Tune up (dBm)			
	Receiver on (Head scenario - Standalone)	Receiver on (Head scenario – Under ENDC/UL CA)	Receiver off (Body scenario - standalone)	Receiver off (Body scenario- Under ENDC/UL CA)
	Level A1	Level B1	Level C1	Level D1
n25	20	18	21	18
n41	25.6	22	24.5	22.7
n66	20	19	21.4	18
n71	24.5	20	24.5	22
n77	24	/	24	/

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

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

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

n25-Power Level A1							
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	1912.5	382500	19.84
15	5	DFT-s-OFDM QPSK	Inner_Full	12@6	1882.5	376500	19.79
15	5	DFT-s-OFDM QPSK	Inner_Full	12@6	1852.5	370500	19.85
15	20	DFT-s-OFDM QPSK	Inner_Full	50@25	1905	381000	19.77
15	20	DFT-s-OFDM QPSK	Inner_Full	50@25	1882.5	376500	19.88
15	20	DFT-s-OFDM QPSK	Inner_Full	50@25	1860	372000	19.78
15	20	DFT-s-OFDM PI/2 BPSK1	Inner_Full	50@25	1882.5	376500	19.83
15	20	DFT-s-OFDM 16QAM	Inner_Full	50@25	1882.5	376500	19.73
15	20	DFT-s-OFDM 64QAM	Inner_Full	50@25	1882.5	376500	19.77
15	20	DFT-s-OFDM 256QAM	Inner_Full	50@25	1882.5	376500	19.28
15	20	CP-OFDM QPSK	Inner_Full	53@26	1882.5	376500	19.82
15	20	CP-OFDM 16QAM	Inner_Full	53@26	1882.5	376500	19.78
15	20	CP-OFDM 64QAM	Inner_Full	53@26	1882.5	376500	19.78
15	20	CP-OFDM 256QAM	Inner_Full	53@26	1882.5	376500	17.25
15	20	DFT-s-OFDM QPSK	Edge_1RB_Right	1@105	1882.5	376500	19.75
15	20	DFT-s-OFDM QPSK	Edge_1RB_Left	1@0	1882.5	376500	19.73
15	20	DFT-s-OFDM QPSK	Edge_Full_Right	2@104	1882.5	370500	19.67
15	20	DFT-s-OFDM QPSK	Edge_Full_Left	2@0	1882.5	370500	19.71
15	20	DFT-s-OFDM QPSK	Inner_1RB_Right	1@104	1882.5	370500	19.63
15	20	DFT-s-OFDM QPSK	Inner_1RB_Left	1@1	1882.5	370500	19.68
15	20	DFT-s-OFDM QPSK	Outer_Full	100@0	1882.5	370500	19.86
15	10	DFT-s-OFDM QPSK	Inner_Full	25@12	1882.5	376500	19.67
15	15	DFT-s-OFDM QPSK	Inner_Full	36@18	1882.5	376500	19.84

n25-Power Level B1/D1							
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	1912.5	382500	17.86
15	5	DFT-s-OFDM QPSK	Inner_Full	12@6	1882.5	376500	17.78
15	5	DFT-s-OFDM QPSK	Inner_Full	12@6	1852.5	370500	17.86
15	20	DFT-s-OFDM QPSK	Inner_Full	50@25	1905	381000	17.80
15	20	DFT-s-OFDM QPSK	Inner_Full	50@25	1882.5	376500	17.88
15	20	DFT-s-OFDM QPSK	Inner_Full	50@25	1860	372000	17.81
15	20	DFT-s-OFDM PI/2 BPSK1	Inner_Full	50@25	1882.5	376500	17.80
15	20	DFT-s-OFDM 16QAM	Inner_Full	50@25	1882.5	376500	17.81
15	20	DFT-s-OFDM 64QAM	Inner_Full	50@25	1882.5	376500	17.83
15	20	DFT-s-OFDM 256QAM	Inner_Full	50@25	1882.5	376500	17.83
15	20	CP-OFDM QPSK	Inner_Full	53@26	1882.5	376500	17.82
15	20	CP-OFDM 16QAM	Inner_Full	53@26	1882.5	376500	17.76
15	20	CP-OFDM 64QAM	Inner_Full	53@26	1882.5	376500	17.72
15	20	CP-OFDM 256QAM	Inner_Full	53@26	1882.5	376500	17.30
15	20	DFT-s-OFDM QPSK	Edge_1RB_Right	1@105	1882.5	376500	17.61
15	20	DFT-s-OFDM QPSK	Edge_1RB_Left	1@0	1882.5	376500	17.63
15	20	DFT-s-OFDM QPSK	Edge_Full_Right	2@104	1882.5	370500	17.63
15	20	DFT-s-OFDM QPSK	Edge_Full_Left	2@0	1882.5	370500	17.67
15	20	DFT-s-OFDM QPSK	Inner_1RB_Right	1@104	1882.5	370500	17.60
15	20	DFT-s-OFDM QPSK	Inner_1RB_Left	1@1	1882.5	370500	17.65
15	20	DFT-s-OFDM QPSK	Outer_Full	100@0	1882.5	370500	17.81
15	10	DFT-s-OFDM QPSK	Inner_Full	25@12	1882.5	376500	17.59
15	15	DFT-s-OFDM QPSK	Inner_Full	36@18	1882.5	376500	17.79

n25-Power Level 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	1912.5	382500	20.93
15	5	DFT-s-OFDM QPSK	Inner_Full	12@6	1882.5	376500	20.91
15	5	DFT-s-OFDM QPSK	Inner_Full	12@6	1852.5	370500	20.92
15	20	DFT-s-OFDM QPSK	Inner_Full	50@25	1905	381000	20.89
15	20	DFT-s-OFDM QPSK	Inner_Full	50@25	1882.5	376500	20.94
15	20	DFT-s-OFDM QPSK	Inner_Full	50@25	1860	372000	20.88
15	20	DFT-s-OFDM PI/2 BPSK1	Inner_Full	50@25	1882.5	376500	20.93
15	20	DFT-s-OFDM 16QAM	Inner_Full	50@25	1882.5	376500	20.92
15	20	DFT-s-OFDM 64QAM	Inner_Full	50@25	1882.5	376500	20.93
15	20	DFT-s-OFDM 256QAM	Inner_Full	50@25	1882.5	376500	19.43
15	20	CP-OFDM QPSK	Inner_Full	53@26	1882.5	376500	20.93
15	20	CP-OFDM 16QAM	Inner_Full	53@26	1882.5	376500	20.87
15	20	CP-OFDM 64QAM	Inner_Full	53@26	1882.5	376500	20.42
15	20	CP-OFDM 256QAM	Inner_Full	53@26	1882.5	376500	17.37
15	20	DFT-s-OFDM QPSK	Edge_1RB_Right	1@105	1882.5	376500	20.72
15	20	DFT-s-OFDM QPSK	Edge_1RB_Left	1@0	1882.5	376500	20.75
15	20	DFT-s-OFDM QPSK	Edge_Full_Right	2@104	1882.5	370500	20.74
15	20	DFT-s-OFDM QPSK	Edge_Full_Left	2@0	1882.5	370500	20.76
15	20	DFT-s-OFDM QPSK	Inner_1RB_Right	1@104	1882.5	370500	20.68
15	20	DFT-s-OFDM QPSK	Inner_1RB_Left	1@1	1882.5	370500	20.72
15	20	DFT-s-OFDM QPSK	Outer_Full	100@0	1882.5	370500	20.93
15	10	DFT-s-OFDM QPSK	Inner_Full	25@12	1882.5	376500	20.71
15	15	DFT-s-OFDM QPSK	Inner_Full	36@18	1882.5	376500	20.87



n41-Power Level A1							
SCS (kHz)	NR BW (MHz)	Modulation	RB allocation		NR Test Freq. (MHz)	NR Test CH.	Power Results (dBm)
30	20	DFT-s-OFDM QPSK	Inner_Full	25@12	2679.99	535998	25.30
30	20	DFT-s-OFDM QPSK	Inner_Full	25@12	2636.49	527298	25.31
30	20	DFT-s-OFDM QPSK	Inner_Full	25@12	2592.99	518598	25.33
30	20	DFT-s-OFDM QPSK	Inner_Full	25@12	2549.51	509902	25.28
30	20	DFT-s-OFDM QPSK	Inner_Full	25@12	2506.02	501204	25.27
30	100	DFT-s-OFDM QPSK	Inner_Full	135@67	2640	528000	25.07
30	100	DFT-s-OFDM QPSK	Inner_Full	135@67	2616.51	523302	25.05
30	100	DFT-s-OFDM QPSK	Inner_Full	135@67	2592.99	518598	25.13
30	100	DFT-s-OFDM QPSK	Inner_Full	135@67	2569.5	513900	25.14
30	100	DFT-s-OFDM QPSK	Inner_Full	135@67	2546.01	509202	25.02
30	20	DFT-s-OFDM PI/2 BPSK1	Inner_Full	25@12	2592.99	518598	25.3
30	20	DFT-s-OFDM 16QAM	Inner_Full	25@12	2592.99	518598	25.19
30	20	DFT-s-OFDM 64QAM	Inner_Full	25@12	2592.99	518598	23.78
30	20	DFT-s-OFDM 256QAM	Inner_Full	25@12	2592.99	518598	22.09
30	20	CP-OFDM QPSK	Inner_Full	25@12	2592.99	518598	24.93
30	20	CP-OFDM 16QAM	Inner_Full	25@12	2592.99	518598	24.45
30	20	CP-OFDM 64QAM	Inner_Full	25@12	2592.99	518598	22.85
30	20	CP-OFDM 256QAM	Inner_Full	25@12	2592.99	518598	20.03
30	20	DFT-s-OFDM QPSK	Edge_Full_Right	2@49	2592.99	518598	24.98
30	20	DFT-s-OFDM QPSK	Edge_Full_Left	2@0	2592.99	518598	25.00
30	20	DFT-s-OFDM QPSK	Inner_1RB_Right	1@49	2592.99	518598	24.82
30	20	DFT-s-OFDM QPSK	Inner_1RB_Left	1@1	2592.99	518598	24.84
30	20	DFT-s-OFDM QPSK	Outer_Full	50@0	2592.99	518598	25.12
30	40	DFT-s-OFDM QPSK	Inner_Full	50@25	2592.99	518598	25.24
30	60	DFT-s-OFDM QPSK	Inner_Full	81@40	2592.99	511899	25.10

n41-Power Level B1							
SCS (kHz)	NR BW (MHz)	Modulation	RB allocation		NR Test Freq. (MHz)	NR Test CH.	Power Results (dBm)
30	20	DFT-s-OFDM QPSK	Inner_Full	25@12	2679.99	535998	21.10
30	20	DFT-s-OFDM QPSK	Inner_Full	25@12	2636.49	527298	21.14
30	20	DFT-s-OFDM QPSK	Inner_Full	25@12	2592.99	518598	21.40
30	20	DFT-s-OFDM QPSK	Inner_Full	25@12	2549.51	509902	21.11
30	20	DFT-s-OFDM QPSK	Inner_Full	25@12	2506.02	501204	21.01
30	100	DFT-s-OFDM QPSK	Inner_Full	135@67	2640	528000	21.07
30	100	DFT-s-OFDM QPSK	Inner_Full	135@67	2616.51	523302	21.12
30	100	DFT-s-OFDM QPSK	Inner_Full	135@67	2592.99	518598	21.14
30	100	DFT-s-OFDM QPSK	Inner_Full	135@67	2569.5	513900	21.10
30	100	DFT-s-OFDM QPSK	Inner_Full	135@67	2546.01	509202	21.03
30	20	DFT-s-OFDM PI/2 BPSK1	Inner_Full	25@12	2592.99	518598	21.2
30	20	DFT-s-OFDM 16QAM	Inner_Full	25@12	2592.99	518598	21.18
30	20	DFT-s-OFDM 64QAM	Inner_Full	25@12	2592.99	518598	21.24
30	20	DFT-s-OFDM 256QAM	Inner_Full	25@12	2592.99	518598	21.24
30	20	CP-OFDM QPSK	Inner_Full	25@12	2592.99	518598	21.24
30	20	CP-OFDM 16QAM	Inner_Full	25@12	2592.99	518598	21.25
30	20	CP-OFDM 64QAM	Inner_Full	25@12	2592.99	518598	21.19
30	20	CP-OFDM 256QAM	Inner_Full	25@12	2592.99	518598	19.77
30	20	DFT-s-OFDM QPSK	Edge_Full_Right	2@49	2592.99	518598	21.01
30	20	DFT-s-OFDM QPSK	Edge_Full_Left	2@0	2592.99	518598	21.03
30	20	DFT-s-OFDM QPSK	Inner_1RB_Right	1@49	2592.99	518598	20.84
30	20	DFT-s-OFDM QPSK	Inner_1RB_Left	1@1	2592.99	518598	20.86
30	20	DFT-s-OFDM QPSK	Outer_Full	50@0	2592.99	518598	21.17
30	40	DFT-s-OFDM QPSK	Inner_Full	50@25	2592.99	518598	21.23
30	60	DFT-s-OFDM QPSK	Inner_Full	81@40	2592.99	511899	21.14

n41-Power Level C1							
SCS (kHz)	NR BW (MHz)	Modulation	RB allocation		NR Test Freq. (MHz)	NR Test CH.	Power Results (dBm)
30	20	DFT-s-OFDM QPSK	Inner_Full	25@12	2679.99	535998	24.23
30	20	DFT-s-OFDM QPSK	Inner_Full	25@12	2636.49	527298	24.23
30	20	DFT-s-OFDM QPSK	Inner_Full	25@12	2592.99	518598	24.25
30	20	DFT-s-OFDM QPSK	Inner_Full	25@12	2549.51	509902	24.22
30	20	DFT-s-OFDM QPSK	Inner_Full	25@12	2506.02	501204	24.18
30	100	DFT-s-OFDM QPSK	Inner_Full	135@67	2640	528000	24.04
30	100	DFT-s-OFDM QPSK	Inner_Full	135@67	2616.51	523302	23.86
30	100	DFT-s-OFDM QPSK	Inner_Full	135@67	2592.99	518598	24.06
30	100	DFT-s-OFDM QPSK	Inner_Full	135@67	2569.5	513900	24.08
30	100	DFT-s-OFDM QPSK	Inner_Full	135@67	2546.01	509202	23.83
30	20	DFT-s-OFDM PI/2 BPSK1	Inner_Full	25@12	2592.99	518598	24.22
30	20	DFT-s-OFDM 16QAM	Inner_Full	25@12	2592.99	518598	24.02
30	20	DFT-s-OFDM 64QAM	Inner_Full	25@12	2592.99	518598	22.66
30	20	DFT-s-OFDM 256QAM	Inner_Full	25@12	2592.99	518598	21.00
30	20	CP-OFDM QPSK	Inner_Full	25@12	2592.99	518598	23.90
30	20	CP-OFDM 16QAM	Inner_Full	25@12	2592.99	518598	23.39
30	20	CP-OFDM 64QAM	Inner_Full	25@12	2592.99	518598	21.68
30	20	CP-OFDM 256QAM	Inner_Full	25@12	2592.99	518598	18.93
30	20	DFT-s-OFDM QPSK	Edge_Full_Right	2@49	2592.99	518598	23.96
30	20	DFT-s-OFDM QPSK	Edge_Full_Left	2@0	2592.99	518598	23.92
30	20	DFT-s-OFDM QPSK	Inner_1RB_Right	1@49	2592.99	518598	23.70
30	20	DFT-s-OFDM QPSK	Inner_1RB_Left	1@1	2592.99	518598	23.70
30	20	DFT-s-OFDM QPSK	Outer_Full	50@0	2592.99	518598	23.96
30	40	DFT-s-OFDM QPSK	Inner_Full	50@25	2592.99	518598	24.24
30	60	DFT-s-OFDM QPSK	Inner_Full	81@40	2592.99	511899	24.04

n41-Power Level D1							
SCS (kHz)	NR BW (MHz)	Modulation	RB allocation		NR Test Freq. (MHz)	NR Test CH.	Power Results (dBm)
30	20	DFT-s-OFDM QPSK	Inner_Full	25@12	2679.99	535998	22.19
30	20	DFT-s-OFDM QPSK	Inner_Full	25@12	2636.49	527298	22.10
30	20	DFT-s-OFDM QPSK	Inner_Full	25@12	2592.99	518598	22.48
30	20	DFT-s-OFDM QPSK	Inner_Full	25@12	2549.51	509902	22.05
30	20	DFT-s-OFDM QPSK	Inner_Full	25@12	2506.02	501204	21.97
30	100	DFT-s-OFDM QPSK	Inner_Full	135@67	2640	528000	22.08
30	100	DFT-s-OFDM QPSK	Inner_Full	135@67	2616.51	523302	22.03
30	100	DFT-s-OFDM QPSK	Inner_Full	135@67	2592.99	518598	22.14
30	100	DFT-s-OFDM QPSK	Inner_Full	135@67	2569.5	513900	22.01
30	100	DFT-s-OFDM QPSK	Inner_Full	135@67	2546.01	509202	21.96
30	20	DFT-s-OFDM PI/2 BPSK1	Inner_Full	25@12	2592.99	518598	22.28
30	20	DFT-s-OFDM 16QAM	Inner_Full	25@12	2592.99	518598	22.16
30	20	DFT-s-OFDM 64QAM	Inner_Full	25@12	2592.99	518598	22.17
30	20	DFT-s-OFDM 256QAM	Inner_Full	25@12	2592.99	518598	22.17
30	20	CP-OFDM QPSK	Inner_Full	25@12	2592.99	518598	22.18
30	20	CP-OFDM 16QAM	Inner_Full	25@12	2592.99	518598	22.25
30	20	CP-OFDM 64QAM	Inner_Full	25@12	2592.99	518598	22.25
30	20	CP-OFDM 256QAM	Inner_Full	25@12	2592.99	518598	20.78
30	20	DFT-s-OFDM QPSK	Edge_Full_Right	2@49	2592.99	518598	22
30	20	DFT-s-OFDM QPSK	Edge_Full_Left	2@0	2592.99	518598	22.05
30	20	DFT-s-OFDM QPSK	Inner_1RB_Right	1@49	2592.99	518598	21.89
30	20	DFT-s-OFDM QPSK	Inner_1RB_Left	1@1	2592.99	518598	21.83
30	20	DFT-s-OFDM QPSK	Outer_Full	50@0	2592.99	518598	22.07
30	40	DFT-s-OFDM QPSK	Inner_Full	50@25	2592.99	518598	22.28
30	60	DFT-s-OFDM QPSK	Inner_Full	81@40	2592.99	511899	22.04

n66-Power Level A1							
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	1777.5	355500	19.84
15	5	DFT-s-OFDM QPSK	Inner_Full	12@6	1745	349000	19.76
15	5	DFT-s-OFDM QPSK	Inner_Full	12@6	1712.5	342500	19.71
15	20	DFT-s-OFDM QPSK	Inner_Full	50@25	1760	352000	19.82
15	20	DFT-s-OFDM QPSK	Inner_Full	50@25	1745	349000	19.87
15	20	DFT-s-OFDM QPSK	Inner_Full	50@25	1730	346000	19.75
15	20	DFT-s-OFDM PI/2 BPSK	Inner_Full	50@25	1745	349000	19.73
15	20	DFT-s-OFDM 16QAM	Inner_Full	50@25	1745	349000	19.78
15	20	DFT-s-OFDM 64QAM	Inner_Full	50@25	1745	349000	19.77
15	20	DFT-s-OFDM 256QAM	Inner_Full	50@25	1745	349000	19.26
15	20	CP-OFDM QPSK	Inner_Full	53@26	1745	349000	19.78
15	20	CP-OFDM 16QAM	Inner_Full	53@26	1745	349000	19.72
15	20	CP-OFDM 64QAM	Inner_Full	53@26	1745	349000	19.75
15	20	CP-OFDM 256QAM	Inner_Full	53@26	1745	349000	17.22
15	20	DFT-s-OFDM QPSK	Edge_1RB_Right	1@105	1745	349000	19.55
15	20	DFT-s-OFDM QPSK	Edge_1RB_Left	1@0	1745	349000	19.64
15	20	DFT-s-OFDM QPSK	Edge_Full_Right	2@104	1745	349000	19.62
15	20	DFT-s-OFDM QPSK	Edge_Full_Left	2@0	1745	349000	19.65
15	20	DFT-s-OFDM QPSK	Inner_1RB_Right	1@104	1745	349000	19.57
15	20	DFT-s-OFDM QPSK	Inner_1RB_Left	1@1	1745	349000	19.65
15	20	DFT-s-OFDM QPSK	Outer_Full	100@0	1745	349000	19.78
15	10	DFT-s-OFDM QPSK	Inner_Full	25@12	1745	349000	19.61
15	15	DFT-s-OFDM QPSK	Inner_Full	36@18	1745	349000	19.76

n66-Power Level B1							
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	1777.5	355500	18.77
15	5	DFT-s-OFDM QPSK	Inner_Full	12@6	1745	349000	18.79
15	5	DFT-s-OFDM QPSK	Inner_Full	12@6	1712.5	342500	18.72
15	20	DFT-s-OFDM QPSK	Inner_Full	50@25	1760	352000	18.76
15	20	DFT-s-OFDM QPSK	Inner_Full	50@25	1745	349000	18.84
15	20	DFT-s-OFDM QPSK	Inner_Full	50@25	1730	346000	18.74
15	20	DFT-s-OFDM P/2 BPSK	Inner_Full	50@25	1745	349000	18.75
15	20	DFT-s-OFDM 16QAM	Inner_Full	50@25	1745	349000	18.77
15	20	DFT-s-OFDM 64QAM	Inner_Full	50@25	1745	349000	18.79
15	20	DFT-s-OFDM 256QAM	Inner_Full	50@25	1745	349000	18.76
15	20	CP-OFDM QPSK	Inner_Full	53@26	1745	349000	18.78
15	20	CP-OFDM 16QAM	Inner_Full	53@26	1745	349000	18.71
15	20	CP-OFDM 64QAM	Inner_Full	53@26	1745	349000	18.74
15	20	CP-OFDM 256QAM	Inner_Full	53@26	1745	349000	17.25
15	20	DFT-s-OFDM QPSK	Edge_1RB_Right	1@105	1745	349000	18.56
15	20	DFT-s-OFDM QPSK	Edge_1RB_Left	1@0	1745	349000	18.61
15	20	DFT-s-OFDM QPSK	Edge_Full_Right	2@104	1745	349000	18.60
15	20	DFT-s-OFDM QPSK	Edge_Full_Left	2@0	1745	349000	18.65
15	20	DFT-s-OFDM QPSK	Inner_1RB_Right	1@104	1745	349000	18.57
15	20	DFT-s-OFDM QPSK	Inner_1RB_Left	1@1	1745	349000	18.61
15	20	DFT-s-OFDM QPSK	Outer_Full	100@0	1745	349000	18.78
15	10	DFT-s-OFDM QPSK	Inner_Full	25@12	1745	349000	18.64
15	15	DFT-s-OFDM QPSK	Inner_Full	36@18	1745	349000	18.69

n66-Power Level 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	1777.5	355500	20.85
15	5	DFT-s-OFDM QPSK	Inner_Full	12@6	1745	349000	20.87
15	5	DFT-s-OFDM QPSK	Inner_Full	12@6	1712.5	342500	20.78
15	20	DFT-s-OFDM QPSK	Inner_Full	50@25	1760	352000	20.83
15	20	DFT-s-OFDM QPSK	Inner_Full	50@25	1745	349000	20.89
15	20	DFT-s-OFDM QPSK	Inner_Full	50@25	1730	346000	20.87
15	20	DFT-s-OFDM PI/2 BPSK	Inner_Full	50@25	1745	349000	20.84
15	20	DFT-s-OFDM 16QAM	Inner_Full	50@25	1745	349000	20.83
15	20	DFT-s-OFDM 64QAM	Inner_Full	50@25	1745	349000	21.20
15	20	DFT-s-OFDM 256QAM	Inner_Full	50@25	1745	349000	19.33
15	20	CP-OFDM QPSK	Inner_Full	53@26	1745	349000	20.85
15	20	CP-OFDM 16QAM	Inner_Full	53@26	1745	349000	20.79
15	20	CP-OFDM 64QAM	Inner_Full	53@26	1745	349000	20.29
15	20	CP-OFDM 256QAM	Inner_Full	53@26	1745	349000	17.26
15	20	DFT-s-OFDM QPSK	Edge_1RB_Right	1@105	1745	349000	20.66
15	20	DFT-s-OFDM QPSK	Edge_1RB_Left	1@0	1745	349000	20.67
15	20	DFT-s-OFDM QPSK	Edge_Full_Right	2@104	1745	349000	20.68
15	20	DFT-s-OFDM QPSK	Edge_Full_Left	2@0	1745	349000	20.72
15	20	DFT-s-OFDM QPSK	Inner_1RB_Right	1@104	1745	349000	20.64
15	20	DFT-s-OFDM QPSK	Inner_1RB_Left	1@1	1745	349000	20.67
15	20	DFT-s-OFDM QPSK	Outer_Full	100@0	1745	349000	20.83
15	10	DFT-s-OFDM QPSK	Inner_Full	25@12	1745	349000	20.68
15	15	DFT-s-OFDM QPSK	Inner_Full	36@18	1745	349000	20.81

n66-Power Level D1							
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	1777.5	355500	17.73
15	5	DFT-s-OFDM QPSK	Inner_Full	12@6	1745	349000	17.80
15	5	DFT-s-OFDM QPSK	Inner_Full	12@6	1712.5	342500	17.69
15	20	DFT-s-OFDM QPSK	Inner_Full	50@25	1760	352000	17.76
15	20	DFT-s-OFDM QPSK	Inner_Full	50@25	1745	349000	17.82
15	20	DFT-s-OFDM QPSK	Inner_Full	50@25	1730	346000	17.78
15	20	DFT-s-OFDM PI/2 BPSK	Inner_Full	50@25	1745	349000	17.76
15	20	DFT-s-OFDM 16QAM	Inner_Full	50@25	1745	349000	17.76
15	20	DFT-s-OFDM 64QAM	Inner_Full	50@25	1745	349000	17.74
15	20	DFT-s-OFDM 256QAM	Inner_Full	50@25	1745	349000	17.78
15	20	CP-OFDM QPSK	Inner_Full	53@26	1745	349000	17.78
15	20	CP-OFDM 16QAM	Inner_Full	53@26	1745	349000	17.72
15	20	CP-OFDM 64QAM	Inner_Full	53@26	1745	349000	17.72
15	20	CP-OFDM 256QAM	Inner_Full	53@26	1745	349000	17.27
15	20	DFT-s-OFDM QPSK	Edge_1RB_Right	1@105	1745	349000	17.56
15	20	DFT-s-OFDM QPSK	Edge_1RB_Left	1@0	1745	349000	17.60
15	20	DFT-s-OFDM QPSK	Edge_Full_Right	2@104	1745	349000	17.61
15	20	DFT-s-OFDM QPSK	Edge_Full_Left	2@0	1745	349000	17.65
15	20	DFT-s-OFDM QPSK	Inner_1RB_Right	1@104	1745	349000	17.56
15	20	DFT-s-OFDM QPSK	Inner_1RB_Left	1@1	1745	349000	17.60
15	20	DFT-s-OFDM QPSK	Outer_Full	100@0	1745	349000	17.77
15	10	DFT-s-OFDM QPSK	Inner_Full	25@12	1745	349000	17.59
15	15	DFT-s-OFDM QPSK	Inner_Full	36@18	1745	349000	17.74

n71-Power Level A1/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	695.5	139100	23.92
15	5	DFT-s-OFDM QPSK	Inner_Full	12@6	680.5	136100	23.86
15	5	DFT-s-OFDM QPSK	Inner_Full	12@6	665.5	133100	23.91
15	20	DFT-s-OFDM QPSK	Inner_Full	50@25	688	137600	23.88
15	20	DFT-s-OFDM QPSK	Inner_Full	50@25	680.5	136100	23.94
15	20	DFT-s-OFDM QPSK	Inner_Full	50@25	673	134600	23.89
15	20	DFT-s-OFDM PI/2 BPSK1	Inner_Full	50@25	680.5	136100	23.93
15	20	DFT-s-OFDM 16QAM	Inner_Full	50@25	680.5	136100	22.92
15	20	DFT-s-OFDM 64QAM	Inner_Full	50@25	680.5	136100	21.44
15	20	DFT-s-OFDM 256QAM	Inner_Full	50@25	680.5	136100	19.49
15	20	CP-OFDM QPSK	Inner_Full	53@26	680.5	136100	22.41
15	20	CP-OFDM 16QAM	Inner_Full	53@26	680.5	136100	21.83
15	20	CP-OFDM 64QAM	Inner_Full	53@26	680.5	136100	20.29
15	20	CP-OFDM 256QAM	Inner_Full	53@26	680.5	136100	17.45
15	20	DFT-s-OFDM QPSK	Edge_1RB_Right	1@105	680.5	136100	22.67
15	20	DFT-s-OFDM QPSK	Edge_1RB_Left	1@0	680.5	136100	22.71
15	20	DFT-s-OFDM QPSK	Edge_Full_Right	2@104	680.5	136100	22.75
15	20	DFT-s-OFDM QPSK	Edge_Full_Left	2@0	680.5	136100	22.79
15	20	DFT-s-OFDM QPSK	Inner_1RB_Right	1@104	680.5	136100	23.71
15	20	DFT-s-OFDM QPSK	Inner_1RB_Left	1@1	680.5	136100	23.74
15	20	DFT-s-OFDM QPSK	Outer_Full	100@0	680.5	136100	22.89
15	10	DFT-s-OFDM QPSK	Inner_Full	25@12	680.5	136100	23.71
15	15	DFT-s-OFDM QPSK	Inner_Full	36@18	680.5	136100	23.87



n71-Power Level B1							
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	695.5	139100	19.91
15	5	DFT-s-OFDM QPSK	Inner_Full	12@6	680.5	136100	19.93
15	5	DFT-s-OFDM QPSK	Inner_Full	12@6	665.5	133100	19.92
15	20	DFT-s-OFDM QPSK	Inner_Full	50@25	688	137600	19.96
15	20	DFT-s-OFDM QPSK	Inner_Full	50@25	680.5	136100	19.97
15	20	DFT-s-OFDM QPSK	Inner_Full	50@25	673	134600	19.94
15	20	DFT-s-OFDM PI/2 BPSK1	Inner_Full	50@25	680.5	136100	19.95
15	20	DFT-s-OFDM 16QAM	Inner_Full	50@25	680.5	136100	19.95
15	20	DFT-s-OFDM 64QAM	Inner_Full	50@25	680.5	136100	19.91
15	20	DFT-s-OFDM 256QAM	Inner_Full	50@25	680.5	136100	19.46
15	20	CP-OFDM QPSK	Inner_Full	53@26	680.5	136100	19.91
15	20	CP-OFDM 16QAM	Inner_Full	53@26	680.5	136100	19.93
15	20	CP-OFDM 64QAM	Inner_Full	53@26	680.5	136100	19.94
15	20	CP-OFDM 256QAM	Inner_Full	53@26	680.5	136100	17.43
15	20	DFT-s-OFDM QPSK	Edge_1RB_Right	1@105	680.5	136100	19.96
15	20	DFT-s-OFDM QPSK	Edge_1RB_Left	1@0	680.5	136100	19.92
15	20	DFT-s-OFDM QPSK	Edge_Full_Right	2@104	680.5	136100	19.07
15	20	DFT-s-OFDM QPSK	Edge_Full_Left	2@0	680.5	136100	19.08
15	20	DFT-s-OFDM QPSK	Inner_1RB_Right	1@104	680.5	136100	19.85
15	20	DFT-s-OFDM QPSK	Inner_1RB_Left	1@1	680.5	136100	19.83
15	20	DFT-s-OFDM QPSK	Outer_Full	100@0	680.5	136100	19.14
15	10	DFT-s-OFDM QPSK	Inner_Full	25@12	680.5	136100	19.84
15	15	DFT-s-OFDM QPSK	Inner_Full	36@18	680.5	136100	19.84

n71-Power Level D1							
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	695.5	139100	21.87
15	5	DFT-s-OFDM QPSK	Inner_Full	12@6	680.5	136100	21.86
15	5	DFT-s-OFDM QPSK	Inner_Full	12@6	665.5	133100	21.83
15	20	DFT-s-OFDM QPSK	Inner_Full	50@25	688	137600	21.83
15	20	DFT-s-OFDM QPSK	Inner_Full	50@25	680.5	136100	21.89
15	20	DFT-s-OFDM QPSK	Inner_Full	50@25	673	134600	21.85
15	20	DFT-s-OFDM PI/2 BPSK1	Inner_Full	50@25	680.5	136100	21.84
15	20	DFT-s-OFDM 16QAM	Inner_Full	50@25	680.5	136100	21.85
15	20	DFT-s-OFDM 64QAM	Inner_Full	50@25	680.5	136100	21.70
15	20	DFT-s-OFDM 256QAM	Inner_Full	50@25	680.5	136100	19.80
15	20	CP-OFDM QPSK	Inner_Full	53@26	680.5	136100	21.85
15	20	CP-OFDM 16QAM	Inner_Full	53@26	680.5	136100	21.88
15	20	CP-OFDM 64QAM	Inner_Full	53@26	680.5	136100	20.60
15	20	CP-OFDM 256QAM	Inner_Full	53@26	680.5	136100	17.75
15	20	DFT-s-OFDM QPSK	Edge_1RB_Right	1@105	680.5	136100	20.97
15	20	DFT-s-OFDM QPSK	Edge_1RB_Left	1@0	680.5	136100	20.99
15	20	DFT-s-OFDM QPSK	Edge_Full_Right	2@104	680.5	136100	21.07
15	20	DFT-s-OFDM QPSK	Edge_Full_Left	2@0	680.5	136100	21.08
15	20	DFT-s-OFDM QPSK	Inner_1RB_Right	1@104	680.5	136100	21.85
15	20	DFT-s-OFDM QPSK	Inner_1RB_Left	1@1	680.5	136100	21.83
15	20	DFT-s-OFDM QPSK	Outer_Full	100@0	680.5	136100	21.14
15	10	DFT-s-OFDM QPSK	Inner_Full	25@12	680.5	136100	21.84
15	15	DFT-s-OFDM QPSK	Inner_Full	36@18	680.5	136100	21.84

n77(3450~3550MHz)-Power Level A1/C1							
SCS (kHz)	NR BW (MHz)	Modulation	RB allocation		NR Test Freq. (MHz)	NR Test CH.	Power Results (dBm)
30	20	DFT-s-OFDM QPSK	Inner_Full	25@12	3540	636000	22.96
30	20	DFT-s-OFDM QPSK	Inner_Full	25@12	3500.01	633334	23.23
30	20	DFT-s-OFDM QPSK	Inner_Full	25@12	3460.02	630668	23.01
30	100	DFT-s-OFDM QPSK	Inner_Full	135@67	3499.98	633332	23.04
30	100	DFT-s-OFDM QPSK	Inner_Full	135@67	3500.01	633334	23.02
30	20	DFT-s-OFDM PI/2 BPSK1	Inner_Full	25@12	3500.01	633334	23.10
30	20	DFT-s-OFDM 16QAM	Inner_Full	25@12	3500.01	633334	23.08
30	20	DFT-s-OFDM 64QAM	Inner_Full	25@12	3500.01	633334	23.12
30	20	DFT-s-OFDM 256QAM	Inner_Full	25@12	3500.01	633334	21.67
30	20	CP-OFDM QPSK	Inner_Full	25@12	3500.01	633334	23.19
30	20	CP-OFDM 16QAM	Inner_Full	25@12	3500.01	633334	23.21
30	20	CP-OFDM 64QAM	Inner_Full	25@12	3500.01	633334	22.60
30	20	CP-OFDM 256QAM	Inner_Full	25@12	3500.01	633334	19.77
30	20	DFT-s-OFDM QPSK	Edge_1RB_Right	1@50	3500.01	633334	22.86
30	20	DFT-s-OFDM QPSK	Edge_1RB_Left	1@0	3500.01	633334	22.96
30	20	DFT-s-OFDM QPSK	Edge_Full_Right	2@49	3500.01	633334	22.92
30	20	DFT-s-OFDM QPSK	Edge_Full_Left	2@0	3500.01	633334	23.08
30	20	DFT-s-OFDM QPSK	Inner_1RB_Right	1@49	3500.01	633334	22.79
30	20	DFT-s-OFDM QPSK	Inner_1RB_Left	1@1	3500.01	633334	22.81
30	20	DFT-s-OFDM QPSK	Outer_Full	50@0	3500.01	633334	23.08
30	10	DFT-s-OFDM QPSK	Inner_1RB_Left	12@6	3500.01	633334	23.12
30	15	DFT-s-OFDM QPSK	Inner_1RB_Left	18@9	3500.01	633334	23.20
30	40	DFT-s-OFDM QPSK	Inner_1RB_Left	50@25	3500.01	633334	23.12
30	50	DFT-s-OFDM QPSK	Inner_1RB_Left	64@32	3500.01	633334	23.21
30	60	DFT-s-OFDM QPSK	Inner_1RB_Left	81@40	3500.01	633334	23.10
30	70	DFT-s-OFDM QPSK	Inner_1RB_Left	90@45	3500.01	633334	23.04
30	80	DFT-s-OFDM QPSK	Inner_1RB_Left	108@54	3500.01	633334	23.08
30	90	DFT-s-OFDM QPSK	Inner_1RB_Left	120@60	3500.01	633334	23.06

n77(3700~3980MHz)-Power Level A1/C1							
SCS (kHz)	NR BW (MHz)	Modulation	RB allocation		NR Test Freq. (MHz)	NR Test CH.	Power Results (dBm)
30	20	DFT-s-OFDM QPSK	Inner_Full	25@12	3969.990	664666	22.76
30	20	DFT-s-OFDM QPSK	Inner_Full	25@12	3918.000	661200	22.62
30	20	DFT-s-OFDM QPSK	Inner_Full	25@12	3866.000	657733	22.61
30	20	DFT-s-OFDM QPSK	Inner_Full	25@12	3814.000	654267	22.78
30	20	DFT-s-OFDM QPSK	Inner_Full	25@12	3762.000	650800	23.19
30	20	DFT-s-OFDM QPSK	Inner_Full	25@12	3710.010	647334	23.01
30	100	DFT-s-OFDM QPSK	Inner_Full	135@67	3930.000	662000	23.05
30	100	DFT-s-OFDM QPSK	Inner_Full	135@67	3894.000	659600	22.73
30	100	DFT-s-OFDM QPSK	Inner_Full	135@67	3858.000	657200	22.70
30	100	DFT-s-OFDM QPSK	Inner_Full	135@67	3822.000	654800	22.79
30	100	DFT-s-OFDM QPSK	Inner_Full	135@67	3786.000	652400	23.02
30	100	DFT-s-OFDM QPSK	Inner_Full	135@67	3750.000	650000	23.04
30	20	DFT-s-OFDM PI/2 BPSK1	Inner_Full	25@12	3762.000	650800	23.10
30	20	DFT-s-OFDM 16QAM	Inner_Full	25@12	3762.000	650800	22.99
30	20	DFT-s-OFDM 64QAM	Inner_Full	25@12	3762.000	650800	23.02
30	20	DFT-s-OFDM 256QAM	Inner_Full	25@12	3762.000	650800	21.59
30	20	CP-OFDM QPSK	Inner_Full	25@12	3762.000	650800	23.11
30	20	CP-OFDM 16QAM	Inner_Full	25@12	3762.000	650800	23.17
30	20	CP-OFDM 64QAM	Inner_Full	25@12	3762.000	650800	22.51
30	20	CP-OFDM 256QAM	Inner_Full	25@12	3762.000	650800	19.68
30	20	DFT-s-OFDM QPSK	Edge_1RB_Right	1@50	3762.000	650800	22.85
30	20	DFT-s-OFDM QPSK	Edge_1RB_Left	1@0	3762.000	650800	22.83
30	20	DFT-s-OFDM QPSK	Edge_Full_Right	2@49	3762.000	650800	22.93
30	20	DFT-s-OFDM QPSK	Edge_Full_Left	2@0	3762.000	650800	22.99
30	20	DFT-s-OFDM QPSK	Inner_1RB_Right	1@49	3762.000	650800	22.83
30	20	DFT-s-OFDM QPSK	Inner_1RB_Left	1@1	3762.000	650800	22.84
30	20	DFT-s-OFDM QPSK	Outer_Full	50@0	3762.000	650800	23.08
30	10	DFT-s-OFDM QPSK	Inner_1RB_Left	12@6	3759.000	650600	23.07
30	15	DFT-s-OFDM QPSK	Inner_1RB_Left	18@9	3760.500	650700	22.87
30	40	DFT-s-OFDM QPSK	Inner_1RB_Left	50@25	3768.000	651200	23.01
30	50	DFT-s-OFDM QPSK	Inner_1RB_Left	64@32	3771.000	651400	22.98
30	60	DFT-s-OFDM QPSK	Inner_1RB_Left	81@40	3774.000	651600	23.07
30	70	DFT-s-OFDM QPSK	Inner_1RB_Left	90@45	3777.000	651800	23.02
30	80	DFT-s-OFDM QPSK	Inner_1RB_Left	108@54	3780.000	652000	23.04
30	90	DFT-s-OFDM QPSK	Inner_1RB_Left	120@60	3786.000	652400	23.02

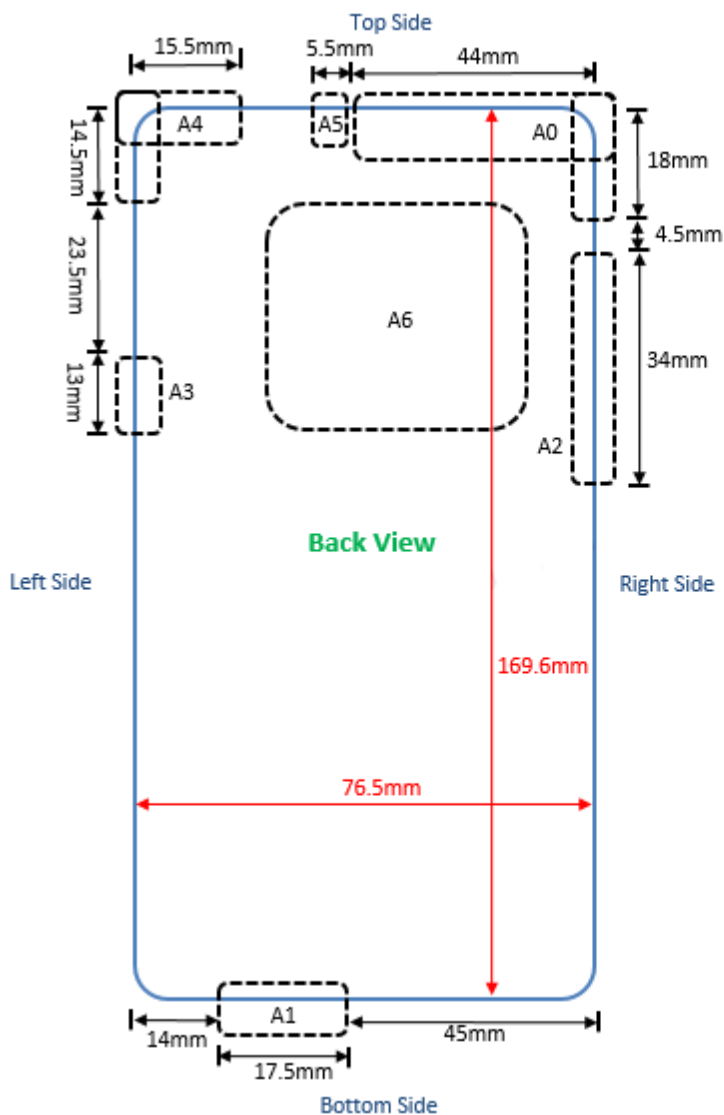
## 12 Simultaneous TX SAR Considerations

### 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



#### A0.Primary Antenna (TX)

GSM 850/900  
 UMTS B5/8  
 LTE: B5/8/12/13/20/26/28/71  
 n5/71 in SA mode  
 B5/12 in ENDC LB(LTE)+MB(NR)  
 B5/12 in ENDC LB(LTE)+UHB(NR)  
 n5/71 in ENDC MB(LTE)+LB(NR)  
 LTE B12 in LTE UL CA LB+MB

#### A1.Primary Antenna (TX)

B2/66 in ENDC MB(LTE)+LB(NR)  
 B2/66 in ENDC MB(LTE)+MB(NR)  
 B2/66 in ENDC MB(LTE)+HB(NR)  
 B2/66 in ENDC MB(LTE)+UHB(NR)  
 LTE B2/4/66 in LTE UL CA MB+MB

#### A2.Primary Antenna (TX)

GSM 1800/1900  
 UMTS B1/2/4  
 LTE: B1/2/3/4/25/39/66  
 n2/25/66/70 in SA mode  
 n2/25/66 in ENDC LB(LTE)+MB(NR)  
 n2/25/66 in ENDC MB(LTE)+MB(NR)  
 LTE B2/4/66 in LTE UL CA MB+MB  
 LTE B2/66 in LTE UL CA MB+LB

#### A3.Primary Antenna (TX)

LTE: B7/38/40/41  
 n41/77 in SA mode  
 n41 in ENDC MB(LTE)+HB(NR)  
 n77 in ENDC LB(LTE)+UHB(NR)  
 n77 in ENDC MB(LTE)+UHB(NR)

#### A4.Connectivity Antenna (Tx)

Wi-Fi 2.4G/Bluetooth

#### A5.Connectivity Antenna (Tx)

Wi-Fi 5G

#### A6.NFC Antenna

Picture 12 Antenna Locations

### 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
ANT0/2	Yes	Yes	Yes	No	Yes	No
ANT1	Yes	Yes	No	Yes	No	Yes
ANT3	Yes	Yes	No	Yes	No	No
ANT4/5	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  $\leq 50$  mm are determined by:

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

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

**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	9.5	8.91	Yes
		Body	19.20	9.5	8.91	Yes
2.4GHz WLAN	2.45	Head	9.58	18	63.1	No
		Body	19.17	20.5	112.2	No
5GHz WLAN	5.2	Head	6.58	16	39.81	No
		Body	13.16	18.3	67.61	No
	5.3	Head	6.52	16	39.81	No
		Body	13.03	18.3	67.61	No
	5.6	Head	6.34	16	39.81	No
		Body	12.68	18.8	75.86	No
	5.8	Head	6.23	15	31.62	No
		Body	12.46	18	63.1	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
<b>Highest SAR value for Head</b>	Right head, Cheek (LTE B2-ANT2)	1.25	0.12	<b>1.37</b>
<b>Highest SAR value for Body</b>	Right 10mm (LTE B41-PC2)	1.17	0.26	<b>1.43</b>

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

	Position	Main antenna	WiFi-5G	Sum
<b>Highest SAR value for Head</b>	Right head, Cheek (LTE B2-ANT2)	1.25	0.18	<b>1.43</b>
	Right head, Tilt (LTE B5)	1.18	0.25	<b>1.43</b>
<b>Highest SAR value for Body</b>	Right 10mm (LTE B41-PC2)	1.17	0.16	<b>1.33</b>

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

	Position	Main antenna	BT	Sum
<b>Maximum reported SAR value for Head</b>	Right head, Cheek (LTE B2-ANT2)	1.25	<0.01	<b>1.25</b>
<b>Maximum reported SAR value for Body</b>	Right 10mm (LTE B41-PC2)	1.17	<0.01	<b>1.17</b>

**Table 13.4: The sum of SAR values for Main antenna + WiFi-5G + BT**

	Position	Main antenna	WiFi-5G	BT	Sum
<b>Highest SAR value for Head</b>	Right head, Cheek (LTE B2-ANT2)	1.25	0.18	<0.01	<b>1.43</b>
	Right head, Tilt (LTE B5)	1.18	0.25	<0.01	<b>1.43</b>
<b>Highest SAR value for Body</b>	Right 10mm (LTE B41-PC2)	1.17	0.16	<0.01	<b>1.33</b>

**Table 13.5: The SAR values for UL CA**

	LTE CC1	LTE CC2	Mode	Position	Reported SAR 1g(W/kg)
UL CA	LTE B2-ANT2	LTE B66-ANT1	Head	Right Cheek	<b>0.67(0.59+0.08)</b>
			Body	Rear 10mm	<b>0.91(0.50+0.41)</b>
		LTE B12-ANT0	Head	Right Cheek	<b>1.06(0.59+0.47)</b>
			Body	Rear 10mm	<b>1.05(0.50+0.55)</b>
	LTE B12-ANT0	LTE B66-ANT2	Head	Right Cheek	<b>1.19(0.47+0.72)</b>
			Body	Rear 10mm	<b>1.11(0.55+0.56)</b>

**Table 13.6: The SAR values for ENDC**

	LTE	NR	Mode	Position	Reported SAR 1g(W/kg)	
ENDC	LTE B2-ANT1	n25	Head	Right Cheek	<b>0.80(0.13+0.67)</b>	
			Body	Rear 10mm	<b>0.77(0.37+0.40)</b>	
		n41	Head	Right Cheek	<b>0.92(0.13+0.79)</b>	
			Body	Rear 10mm	<b>0.75(0.37+0.38)</b>	
		n66	Head	Right Cheek	<b>0.84(0.13+0.71)</b>	
			Body	Rear 10mm	<b>0.70(0.37+0.33)</b>	
		n71	Head	Right Cheek	<b>0.55(0.13+0.42)</b>	
			Body	Rear 10mm	<b>0.69(0.37+0.32)</b>	
		LTE B66-ANT1	n25	Head	Right Cheek	<b>0.75(0.08+0.67)</b>
				Body	Rear 10mm	<b>0.81(0.41+0.40)</b>
			n41	Head	Right Cheek	<b>0.87(0.08+0.79)</b>
				Body	Rear 10mm	<b>0.79(0.41+0.38)</b>
	n71		Head	Right Cheek	<b>0.50(0.08+0.42)</b>	
			Body	Rear 10mm	<b>0.73(0.41+0.32)</b>	
	LTE B12-ANT0	n25	Head	Right Cheek	<b>1.14(0.47+0.67)</b>	
			Body	Rear 10mm	<b>0.95(0.55+0.40)</b>	
		n66	Head	Right Cheek	<b>1.18(0.47+0.71)</b>	
			Body	Rear 10mm	<b>0.88(0.55+0.33)</b>	

**Conclusion:**

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

## 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:

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

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

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

**Table 14.1: Duty Cycle**

Mode	Duty Cycle
GPRS&EGPRS for GSM 850	1:4
GPRS&EGPRS for GSM 1900	1:8.3
WCDMA&LTE FDD&NR FDD	1:1
LTE TDD	1:1.58 or 1:2.37
NR TDD	1:2



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

**Table 14.1-1: SAR Values (GSM 850 MHz Band - 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										
Ambient Temperature: 22.9 °C      Liquid Temperature: 22.5°C											
251	848.8	Left	Cheek	/	29.2	29.3	0.389	<b>0.40</b>	0.687	<b>0.70</b>	0.09
190	836.6	Left	Cheek	/	29.2	29.3	0.495	<b>0.51</b>	0.904	<b>0.93</b>	-0.13
128	824.2	Left	Cheek	/	29.16	29.3	0.484	<b>0.50</b>	0.839	<b>0.87</b>	-0.08
251	848.8	Left	Tilt	/	29.2	29.3	0.387	<b>0.40</b>	0.735	<b>0.75</b>	0.04
190	836.6	Left	Tilt	/	29.2	29.3	0.531	<b>0.54</b>	0.974	<b>1.00</b>	-0.01
128	824.2	Left	Tilt	/	29.16	29.3	0.52	<b>0.54</b>	0.954	<b>0.99</b>	0.14
251	848.8	Right	Cheek	/	29.2	29.3	0.518	<b>0.53</b>	1.08	<b>1.11</b>	-0.10
190	836.6	Right	Cheek	/	29.2	29.3	0.553	<b>0.57</b>	1.13	<b>1.16</b>	-0.09
128	824.2	Right	Cheek	/	29.16	29.3	0.488	<b>0.50</b>	0.969	<b>1.00</b>	0.15
251	848.8	Right	Tilt	/	29.2	29.3	0.458	<b>0.47</b>	0.987	<b>1.01</b>	-0.17
190	836.6	Right	Tilt	Fig.1	29.2	29.3	0.544	<b>0.56</b>	1.17	<b>1.20</b>	0.05
128	824.2	Right	Tilt	/	29.16	29.3	0.519	<b>0.54</b>	1.13	<b>1.17</b>	0.03

Note: the head SAR of GSM850 is tested with GPRS (2Txslots) mode because of VoIP.

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

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										
Ambient Temperature: 22.9 °C      Liquid Temperature: 22.5°C											
190	836.6	GPRS (1)	Front	/	29.2	29.3	0.244	<b>0.25</b>	0.399	<b>0.41</b>	-0.11
251	848.8	GPRS (1)	Rear	/	29.2	29.3	0.305	<b>0.31</b>	0.519	<b>0.53</b>	0.05
190	836.6	GPRS (1)	Rear	Fig.2	29.2	29.3	0.323	<b>0.33</b>	0.568	<b>0.58</b>	-0.07
128	824.2	GPRS (1)	Rear	/	29.16	29.3	0.277	<b>0.29</b>	0.478	<b>0.49</b>	-0.12
190	836.6	GPRS (1)	Left	/	29.2	29.3	0.125	<b>0.13</b>	0.24	<b>0.25</b>	0.06
190	836.6	GPRS (1)	Right	/	29.2	29.3	0.055	<b>0.06</b>	0.081	<b>0.08</b>	-0.17
190	836.6	GPRS (1)	Top	/	29.2	29.3	0.286	<b>0.29</b>	0.541	<b>0.55</b>	0.06
190	836.6	EGPRS (1)	Rear	/	29.13	29.3	0.306	<b>0.32</b>	0.533	<b>0.55</b>	0.13

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

**Table 14.1-3: SAR Values (GSM 1900 MHz Band - 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										
Ambient Temperature: 22.9°C      Liquid Temperature: 22.5°C											
661	1880	Left	Cheek	/	26.28	27.5	0.18	<b>0.24</b>	0.323	<b>0.43</b>	-0.15
661	1880	Left	Tilt	/	26.28	27.5	0.069	<b>0.09</b>	0.117	<b>0.15</b>	0.09
810	1909.8	Right	Cheek	/	26.26	27.5	0.336	<b>0.45</b>	0.719	<b>0.96</b>	-0.11
661	1880	Right	Cheek	/	26.28	27.5	0.346	<b>0.46</b>	0.741	<b>0.98</b>	0.03
512	1850.2	Right	Cheek	Fig.3	26.32	27.5	0.374	<b>0.49</b>	0.778	<b>1.02</b>	-0.01
661	1880	Right	Tilt	/	26.28	27.5	0.113	<b>0.15</b>	0.212	<b>0.28</b>	-0.12

Note: the head SAR of GSM1900 is tested with GPRS (1Txslots) mode because of VoIP.

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

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										
Ambient Temperature: 22.9°C      Liquid Temperature: 22.5°C											
661	1880	GPRS (1)	Front	/	26.28	27.5	0.113	<b>0.15</b>	0.222	<b>0.29</b>	-0.05
661	1880	GPRS (1)	Rear	/	26.28	27.5	0.239	<b>0.32</b>	0.475	<b>0.63</b>	-0.12
810	1909.8	GPRS (1)	Left	/	26.26	27.5	0.294	<b>0.39</b>	0.595	<b>0.79</b>	0.09
661	1880	GPRS (1)	Left	/	26.28	27.5	0.28	<b>0.37</b>	0.551	<b>0.73</b>	-0.13
512	1850.2	GPRS (1)	Left	Fig.4	26.32	27.5	0.304	<b>0.40</b>	0.611	<b>0.80</b>	-0.05
661	1880	GPRS (1)	Right	/	26.28	27.5	0.042	<b>0.06</b>	0.076	<b>0.10</b>	0.07
661	1880	GPRS (1)	Top	/	26.27	27.5	0.285	<b>0.38</b>	0.585	<b>0.78</b>	-0.11
810	1909.8	EGPRS (1)	Left	/	26.28	27.5	0.113	<b>0.15</b>	0.222	<b>0.29</b>	-0.05

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

**Table 14.1-5: SAR Values (WCDMA 1900 MHz Band - 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										
Ambient Temperature: 22.9 °C      Liquid Temperature: 22.5 °C											
9400	1880	Left	Cheek	/	19.08	19.3	0.334	<b>0.35</b>	0.654	<b>0.69</b>	0.12
9400	1880	Left	Tilt	/	19.08	19.3	0.144	<b>0.15</b>	0.24	<b>0.25</b>	-0.11
9538	1907.6	Right	Cheek	/	19.12	19.3	0.364	<b>0.38</b>	0.865	<b>0.90</b>	0.05
9400	1880	Right	Cheek	/	19.08	19.3	0.469	<b>0.49</b>	0.943	<b>0.99</b>	-0.09
9262	1852.4	Right	Cheek	Fig.5	19.05	19.3	0.517	<b>0.55</b>	1.09	<b>1.15</b>	0.12
9400	1880	Right	Tilt	/	19.08	19.3	0.163	<b>0.17</b>	0.308	<b>0.32</b>	0.06

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

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									
Ambient Temperature: 22.9 °C      Liquid Temperature: 22.5 °C										
9400	1880	Front	/	20.11	20.5	0.22	<b>0.24</b>	0.368	<b>0.40</b>	-0.05
9400	1880	Rear	/	20.11	20.5	0.461	<b>0.50</b>	0.836	<b>0.91</b>	0.09
9538	1907.6	Left	/	20.16	20.5	0.521	<b>0.56</b>	0.968	<b>1.05</b>	-0.15
9262	1852.4	Left	Fig.6	20.09	20.5	0.521	<b>0.57</b>	1.02	<b>1.12</b>	0.08
9400	1880	Left	/	20.11	20.5	0.542	<b>0.59</b>	0.997	<b>1.09</b>	0.09
9400	1880	Top	/	20.11	20.5	0.108	<b>0.12</b>	0.171	<b>0.19</b>	-0.11

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

**Table 14.1-7: SAR Values (WCDMA 1700 MHz Band - 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										
Ambient Temperature: 22.9 °C      Liquid Temperature: 22.5 °C											
1412	1732.4	Left	Cheek	/	19.29	20	0.212	<b>0.25</b>	0.342	<b>0.40</b>	-0.01
1412	1732.4	Left	Tilt	/	19.29	20	0.11	<b>0.13</b>	0.192	<b>0.23</b>	0.15
1312	1712.4	Right	Cheek	/	19.28	20	0.396	<b>0.47</b>	0.792	<b>0.93</b>	-0.06
1412	1732.4	Right	Cheek	Fig.7	19.29	20	0.408	<b>0.48</b>	0.844	<b>0.99</b>	0.07
1513	1752.6	Right	Cheek	/	19.31	20	0.398	<b>0.47</b>	0.794	<b>0.93</b>	0.08
1412	1732.4	Right	Tilt	/	19.29	20	0.136	<b>0.16</b>	0.258	<b>0.30</b>	-0.12

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

Frequency		Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Ambient Temperature: 22.9 °C		Liquid Temperature: 22.5°C		Power Drift (dB)
Ch.	MHz					Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	
1412	1732.4	Front	/	20.31	21	0.147	<b>0.17</b>	0.263	<b>0.31</b>	0.15
1412	1732.4	Rear	/	20.31	21	0.246	<b>0.29</b>	0.448	<b>0.53</b>	-0.09
1312	1712.4	Left	/	20.32	21	0.342	<b>0.40</b>	0.654	<b>0.76</b>	0.13
1412	1732.4	Left	/	20.31	21	0.361	<b>0.42</b>	0.712	<b>0.83</b>	-0.11
1513	1752.6	Left	Fig.8	20.34	21	0.391	<b>0.46</b>	0.745	<b>0.87</b>	0.06
1412	1732.4	Top	/	20.31	21	0.075	<b>0.09</b>	0.126	<b>0.15</b>	0.08

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

**Table 14.1-9: SAR Values (WCDMA 850 MHz Band - Head)**

Frequency		Side	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Ambient Temperature: 22.9 °C		Liquid Temperature: 22.5°C		Power Drift (dB)
Ch.	MHz						Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	
4233	846.6	Left	Cheek	/	23.66	24	0.418	<b>0.45</b>	0.804	<b>0.87</b>	0.12
4183	836.6	Left	Cheek	/	23.59	24	0.386	<b>0.42</b>	0.742	<b>0.82</b>	-0.11
4132	826.4	Left	Cheek	/	23.65	24	0.35	<b>0.38</b>	0.675	<b>0.73</b>	-0.06
4233	846.6	Left	Tilt	/	23.66	24	0.359	<b>0.39</b>	0.734	<b>0.79</b>	0.06
4183	836.6	Left	Tilt	/	23.59	24	0.332	<b>0.36</b>	0.675	<b>0.74</b>	0.03
4132	826.4	Left	Tilt	/	23.65	24	0.303	<b>0.33</b>	0.616	<b>0.67</b>	-0.12
4183	836.6	Right	Cheek	/	23.59	24	0.45	<b>0.49</b>	0.64	<b>0.70</b>	-0.06
4233	846.6	Right	Tilt	Fig.9	23.66	24	0.497	<b>0.54</b>	0.945	<b>1.02</b>	0.08
4183	836.6	Right	Tilt	/	23.59	24	0.429	<b>0.47</b>	0.805	<b>0.88</b>	-0.12
4132	826.4	Right	Tilt	/	23.65	24	0.437	<b>0.47</b>	0.835	<b>0.91</b>	0.07

**Table 14.1-10: SAR Values (WCDMA 850 MHz Band - Body)**

Frequency		Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Ambient Temperature: 22.9 °C		Liquid Temperature: 22.5°C		Power Drift (dB)
Ch.	MHz					Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	
4183	836.6	Front	/	23.59	24	0.169	<b>0.19</b>	0.284	<b>0.31</b>	0.12
4183	836.6	Rear	/	23.59	24	0.231	<b>0.25</b>	0.396	<b>0.44</b>	-0.06
4183	836.6	Left	/	23.59	24	0.132	<b>0.15</b>	0.196	<b>0.22</b>	-0.17
4233	846.6	Top	Fig.10	23.66	24	0.235	<b>0.25</b>	0.473	<b>0.51</b>	-0.20
4183	836.6	Top	/	23.59	24	0.204	<b>0.22</b>	0.411	<b>0.45</b>	0.06
4132	826.4	Top	/	23.65	24	0.193	<b>0.21</b>	0.388	<b>0.42</b>	-0.12

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

**Table 14.1-11: SAR Values (LTE Band2 ANT2 - Head)**

Frequency		Mode	Side	Test Position	Figure No.	Conduct ed Power (dBm)	Max. tune-up Power (dBm)	Measure d SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measure d SAR(1g) (W/kg)	Reporte d SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz											
18900	1880	1RB_Mid	Left	Cheek	/	20.2	20.4	0.287	<b>0.30</b>	0.523	<b>0.55</b>	0.07
18900	1880	1RB_Mid	Left	Tilt	/	20.2	20.4	0.132	<b>0.14</b>	0.22	<b>0.23</b>	0.06
19100	1900	1RB_Mid	Right	Cheek	/	20.15	20.4	0.493	<b>0.52</b>	1.02	<b>1.08</b>	0.02
18900	1880	1RB_Mid	Right	Cheek	Fig.11	20.2	20.4	0.564	<b>0.59</b>	1.19	<b>1.25</b>	-0.08
18700	1860	1RB_Mid	Right	Cheek	/	20.08	20.4	0.536	<b>0.58</b>	1.09	<b>1.17</b>	-0.05
18900	1880	100RB	Right	Cheek	/	20.12	20.4	0.543	<b>0.58</b>	1.13	<b>1.21</b>	0.07
18900	1880	1RB_Mid	Right	Tilt	/	20.2	20.4	0.173	<b>0.18</b>	0.319	<b>0.33</b>	0.07
18900	1880	50RB-Low	Left	Cheek	/	20.22	20.4	0.258	<b>0.27</b>	0.447	<b>0.47</b>	0.05
18900	1880	50RB-Low	Left	Tilt	/	20.22	20.4	0.148	<b>0.15</b>	0.254	<b>0.26</b>	0.05
19100	1900	50RB-Low	Right	Cheek	/	20.2	20.4	0.481	<b>0.50</b>	0.989	<b>1.04</b>	-0.16
18900	1880	50RB-Low	Right	Cheek	/	20.22	20.4	0.561	<b>0.58</b>	1.16	<b>1.21</b>	0.13
18700	1860	50RB-Low	Right	Cheek	/	20.17	20.4	0.545	<b>0.57</b>	1.12	<b>1.18</b>	-0.15
18900	1880	50RB-Low	Right	Tilt	/	20.22	20.4	0.153	<b>0.16</b>	0.276	<b>0.29</b>	0.07
19100	1900	1RB-Mid	Left	Cheek	/	20.87	21	0.288	<b>0.30</b>	0.618	<b>0.64</b>	0.01
19100	1900	1RB-Mid	Left	Tilt	Note2	22.75	24	0.071	<b>0.09</b>	0.114	<b>0.15</b>	-0.03
19100	1900	1RB-Mid	Right	Cheek	Note2	22.75	24	0.04	<b>0.05</b>	0.057	<b>0.08</b>	0.09
19100	1900	1RB-Mid	Right	Tilt	Note2	22.75	24	0.06	<b>0.08</b>	0.095	<b>0.13</b>	-0.02
18700	1860	50RB-Low	Left	Cheek	Note2	22.75	24	0.04	<b>0.05</b>	0.067	<b>0.09</b>	0.07
18700	1860	50RB-Low	Left	Tilt	Note2	21.9	23	0.02	<b>0.03</b>	0.029	<b>0.04</b>	0.04
18700	1860	50RB-Low	Right	Cheek	Note2	21.9	23	0.01	<b>0.01</b>	0.01	<b>0.01</b>	0.15
18700	1860	50RB-Low	Right	Tilt	Note2	21.9	23	0.01	<b>0.01</b>	0.019	<b>0.02</b>	-0.02

Note1: The LTE mode is QPSK\_20MHz.

Note2:The results are for ENDC only.

**Table 14.1-12: SAR Values (LTE Band2 ANT2 – Body)**

Ambient Temperature: 22.9 °C      Liquid Temperature: 22.5 °C

Frequency		Mode	Figure No.	Conduct ed 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									
18900	1880	1RB-Mid Front	/	21.09	21.4	0.193	<b>0.21</b>	0.356	<b>0.38</b>	0.07
18900	1880	1RB-Mid Rear	/	21.09	21.4	0.35	<b>0.38</b>	0.713	<b>0.77</b>	-0.04
19100	1900	1RB-Mid Left	/	21	21.4	0.468	<b>0.51</b>	0.941	<b>1.03</b>	-0.15
18900	1880	1RB-Mid Left	/	21.09	21.4	0.481	<b>0.52</b>	0.969	<b>1.04</b>	0.10
18700	1860	1RB-Mid Left	/	21.01	21.4	0.475	<b>0.52</b>	0.95	<b>1.04</b>	0.06
18900	1880	1RB-Mid Top	/	21.09	21.4	0.082	<b>0.09</b>	0.143	<b>0.15</b>	-0.12
18900	1880	50RB-Mid Front	/	21.11	21.4	0.199	<b>0.21</b>	0.367	<b>0.39</b>	-0.01
18900	1880	50RB-Mid Rear	/	21.11	21.4	0.323	<b>0.35</b>	0.69	<b>0.74</b>	0.17
19100	1900	50RB-Mid Left	/	21.1	21.4	0.507	<b>0.54</b>	1.01	<b>1.08</b>	-0.05
18900	1880	50RB-Mid Left	Fig.12	21.11	21.4	0.518	<b>0.55</b>	1.04	<b>1.11</b>	0.14
18700	1860	50RB-Mid Left	/	21.09	21.4	0.511	<b>0.55</b>	1.02	<b>1.10</b>	-0.15
18900	1880	100RB Left	/	21.08	21.4	0.489	<b>0.53</b>	0.986	<b>1.06</b>	0.09
18900	1880	50RB-Mid Top	/	21.11	21.4	0.085	<b>0.09</b>	0.148	<b>0.16</b>	-0.08
18900	1880	1RB-Mid Front	Note2	17.93	18.5	0.069	<b>0.08</b>	0.122	<b>0.14</b>	-0.09
18900	1880	1RB-Mid Rear	Note2	17.93	18.5	0.169	<b>0.19</b>	0.324	<b>0.37</b>	0.13
18900	1880	1RB-Mid Left	Note2	17.93	18.5	0.18	<b>0.21</b>	0.357	<b>0.41</b>	0.07
18900	1880	1RB-Mid Top	Note2	17.93	18.5	0.033	<b>0.04</b>	0.056	<b>0.06</b>	-0.12
18900	1880	50RB-Low Front	Note2	17.95	18.5	0.097	<b>0.11</b>	0.17	<b>0.19</b>	0.11
18900	1880	50RB-Low Rear	Note2	17.95	18.5	0.236	<b>0.27</b>	0.443	<b>0.50</b>	0.17
18900	1880	50RB-Low Left	Note2	17.95	18.5	0.255	<b>0.29</b>	0.496	<b>0.56</b>	0.01
18900	1880	50RB-Low Top	Note2	17.95	18.5	0.047	<b>0.05</b>	0.076	<b>0.09</b>	-0.04

Note1: The distance between the EUT and the phantom bottom is 10mm. The LTE mode is QPSK\_20MHz.

Note2: The results are for ENDC only.

**Table 14.1-13: SAR Values (LTE Band2 ANT1 - Head)**

Ambient Temperature: 22.9 °C						Liquid Temperature: 22.5°C						
Frequency		Mode	Side	Test Position	Figure No.	Conduct ed Power (dBm)	Max. tune-up Power (dBm)	Measure d SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measure d SAR(1g) (W/kg)	Reporte d SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz											
19100	1900	1RB_Mid	Left	Cheek	Fig.13	22.75	24	0.071	<b>0.09</b>	0.114	<b>0.15</b>	-0.03
19100	1900	1RB_Mid	Left	Tilt	/	22.75	24	0.04	<b>0.05</b>	0.057	<b>0.08</b>	0.09
19100	1900	1RB_Mid	Right	Cheek	/	22.75	24	0.06	<b>0.08</b>	0.095	<b>0.13</b>	-0.02
19100	1900	1RB_Mid	Right	Tilt	/	22.75	24	0.04	<b>0.05</b>	0.067	<b>0.09</b>	0.07
18700	1860	50RB-Low	Left	Cheek	/	21.9	23	0.02	<b>0.03</b>	0.029	<b>0.04</b>	0.04
18700	1860	50RB-Low	Left	Tilt	/	21.9	23	0.01	<b>0.01</b>	0.01	<b>0.01</b>	0.15
18700	1860	50RB-Low	Right	Cheek	/	21.9	23	0.01	<b>0.01</b>	0.019	<b>0.02</b>	-0.02
18700	1860	50RB-Low	Right	Tilt	/	21.9	23	0.033	<b>0.04</b>	0.019	<b>0.02</b>	-0.07

Note1: The LTE mode is QPSK\_20MHz.

Note2: All the results are for ENDC only.

**Table 14.1-14: SAR Values (LTE Band2 ANT1 – Body)**

Ambient Temperature: 22.9 °C						Liquid Temperature: 22.5°C					
Frequency		Mode	Figure No.	Conduct ed 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										
19100	1900	1RB-Mid Front	/	17.83	19	0.062	<b>0.08</b>	0.128	<b>0.17</b>	-0.14	
19100	1900	1RB-Mid Rear	/	17.83	19	0.165	<b>0.22</b>	0.279	<b>0.37</b>	0.12	
19100	1900	1RB-Mid Right	/	17.83	19	<0.01	<0.01	<0.01	<0.01	/	
19100	1900	1RB-Mid Bottom	Fig.14	17.83	19	0.2	<b>0.26</b>	0.365	<b>0.48</b>	0.20	
19100	1900	50RB-Low Front	/	17.97	19	0.095	<b>0.12</b>	0.156	<b>0.20</b>	0.12	
19100	1900	50RB-Low Rear	/	17.97	19	0.149	<b>0.19</b>	0.247	<b>0.31</b>	0.12	
19100	1900	50RB-Low Right	/	17.97	19	<0.01	<0.01	<0.01	<0.01	/	
19100	1900	50RB-Low Bottom	/	17.97	19	0.179	<b>0.23</b>	0.33	<b>0.42</b>	0.09	

Note1: The distance between the EUT and the phantom bottom is 10mm. The LTE mode is QPSK\_20MHz.

Note2: All the results are for ENDC only.

**Table 14.1-15: SAR Values (LTE Band7 - Head)**

Frequency		Ambient Temperature: 22.9 °C					Liquid Temperature: 22.5°C					
Ch.	MHz	Mode	Side	Test Position	Figure No.	Conduct ed Power (dBm)	Max. tune-up Power (dBm)	Measure d SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measure d SAR(1g) (W/kg)	Reporte d SAR(1g) (W/kg)	Power Drift (dB)
21350	2560	1RB_Mid	Left	Cheek	/	21.33	22	0.351	<b>0.41</b>	0.779	<b>0.91</b>	0.04
21100	2535	1RB_Mid	Left	Cheek	/	21.35	22	0.311	<b>0.36</b>	0.687	<b>0.80</b>	-0.10
20850	2510	1RB_Mid	Left	Cheek	Fig.15	21.22	22	0.393	<b>0.47</b>	0.874	<b>1.05</b>	-0.18
20850	2510	1RB_Mid	Left	Cheek	/	21.24	22	0.371	<b>0.44</b>	0.836	<b>1.00</b>	0.06
21100	2535	100RB	Left	Tilt	/	21.35	22	0.092	<b>0.11</b>	0.191	<b>0.22</b>	0.03
21100	2535	100RB	Right	Cheek	/	21.35	22	0.253	<b>0.29</b>	0.562	<b>0.65</b>	0.16
21100	2535	1RB_Mid	Right	Tilt	/	21.35	22	0.053	<b>0.06</b>	0.104	<b>0.12</b>	0.01
21100	2535	50RB-Low	Left	Cheek	/	21.41	22	0.222	<b>0.25</b>	0.513	<b>0.59</b>	0.12
21100	2535	50RB-Low	Left	Tilt	/	21.41	22	0.096	<b>0.11</b>	0.204	<b>0.23</b>	0.05
21100	2535	50RB-Low	Right	Cheek	/	21.41	22	0.202	<b>0.23</b>	0.435	<b>0.50</b>	0.11
21100	2535	50RB-Low	Right	Tilt	/	21.41	22	0.052	<b>0.06</b>	0.103	<b>0.12</b>	0.08

Note1: The LTE mode is QPSK\_20MHz.

**Table 14.1-16: SAR Values (LTE Band7 – Body)**

Frequency		Ambient Temperature: 22.9 °C					Liquid Temperature: 22.5°C				
Ch.	MHz	Mode	Figure No.	Conduct ed 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)	
21350	2560	1RB-Mid Front	/	19.24	20	0.082	<b>0.10</b>	0.162	<b>0.19</b>	0.12	
21350	2560	1RB-Mid Rear	/	19.24	20	0.177	<b>0.21</b>	0.359	<b>0.43</b>	-0.14	
21350	2560	1RB-Mid Right	/	19.24	20	0.256	<b>0.30</b>	0.537	<b>0.64</b>	0.07	
21350	2560	50RB-Low Front	/	19.28	20	0.084	<b>0.10</b>	0.164	<b>0.19</b>	0.15	
21350	2560	50RB-Low Rear	/	19.28	20	0.171	<b>0.20</b>	0.341	<b>0.40</b>	-0.09	
21350	2560	50RB-Low Right	Fig.16	19.28	20	0.264	<b>0.31</b>	0.556	<b>0.66</b>	0.12	

Note1: The distance between the EUT and the phantom bottom is 10mm. The LTE mode is QPSK\_20MHz.



**Table 14.1-17: SAR Values (LTE Band12 - 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											
23130	711	1RB_Low	Left	Cheek	/	23.86	24	0.405	<b>0.42</b>	0.706	<b>0.73</b>	-0.15
23095	707.5	1RB_Mid	Left	Cheek	/	23.84	24	0.392	<b>0.41</b>	0.687	<b>0.71</b>	0.06
23060	704	1RB_Low	Left	Cheek	/	23.79	24	0.384	<b>0.40</b>	0.676	<b>0.71</b>	-0.11
23130	711	100RB	Left	Cheek	/	22.83	23	0.318	<b>0.33</b>	0.552	<b>0.57</b>	0.07
23130	711	1RB_Mid	Left	Tilt	/	23.86	24	0.391	<b>0.40</b>	0.648	<b>0.67</b>	-0.05
23130	711	1RB_Low	Right	Cheek	Fig.17	23.86	24	0.471	<b>0.49</b>	0.796	<b>0.82</b>	0.05
23095	707.5	1RB_Mid	Right	Cheek	/	23.84	24	0.438	<b>0.45</b>	0.688	<b>0.71</b>	-0.07
23060	704	1RB_Low	Right	Cheek	/	23.79	24	0.448	<b>0.47</b>	0.703	<b>0.74</b>	-0.06
23130	711	100RB	Right	Cheek	/	22.83	23	0.382	<b>0.40</b>	0.633	<b>0.66</b>	0.09
23130	711	1RB_Mid	Right	Tilt	/	23.86	24	0.438	<b>0.45</b>	0.738	<b>0.76</b>	-0.07
23130	711	25RB-Low	Left	Cheek	/	22.89	23	0.295	<b>0.30</b>	0.487	<b>0.50</b>	-0.05
23130	711	25RB-Low	Left	Tilt	/	22.89	23	0.3	<b>0.31</b>	0.511	<b>0.52</b>	-0.03
23130	711	25RB-Low	Right	Cheek	/	22.89	23	0.346	<b>0.35</b>	0.581	<b>0.60</b>	-0.14
23130	711	25RB-Low	Right	Tilt	/	22.89	23	0.341	<b>0.35</b>	0.606	<b>0.62</b>	-0.05
23095	707.5	1RB_Mid	Left	Cheek	Note2	20.58	21	0.228	<b>0.25</b>	0.404	<b>0.45</b>	0.16
23095	707.5	1RB_Mid	Left	Tilt	Note2	20.58	21	0.213	<b>0.23</b>	0.409	<b>0.45</b>	-0.11
23095	707.5	1RB_Mid	Right	Cheek	Note2	20.58	21	0.231	<b>0.25</b>	0.431	<b>0.47</b>	0.12
23095	707.5	1RB_Mid	Right	Tilt	Note2	20.58	21	0.229	<b>0.25</b>	0.428	<b>0.47</b>	0.03
23095	707.5	25RB-Low	Left	Cheek	Note2	20.66	21	0.208	<b>0.22</b>	0.353	<b>0.38</b>	0.07
23095	707.5	25RB-Low	Left	Tilt	Note2	20.66	21	0.193	<b>0.21</b>	0.347	<b>0.38</b>	-0.07
23095	707.5	25RB-Low	Right	Cheek	Note2	20.66	21	0.23	<b>0.25</b>	0.437	<b>0.47</b>	-0.12
23095	707.5	25RB-Low	Right	Tilt	Note2	20.66	21	0.236	<b>0.26</b>	0.442	<b>0.48</b>	-0.13

Note1: The LTE mode is QPSK\_10MHz.

Note2: The results are for ENDC only.

**Table 14.1-18: SAR Values (LTE Band12 – Body)**

Frequency		Mode	Figure No.	Conduct ed 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										
		Ambient Temperature: 22.9 °C				Liquid Temperature: 22.5°C					
23130	711	1RB-Low Front	/	23.86	24	0.224	<b>0.23</b>	0.379	<b>0.39</b>	-0.12	
23130	711	1RB-Low Rear	Fig.18	23.86	24	0.311	<b>0.32</b>	0.528	<b>0.55</b>	-0.04	
23130	711	1RB-Low Left	/	23.86	24	0.182	<b>0.19</b>	0.273	<b>0.28</b>	0.10	
23130	711	1RB-Low Top	/	23.86	24	0.246	<b>0.25</b>	0.522	<b>0.54</b>	-0.02	
23130	711	25RB-Low Front	/	22.89	23	0.173	<b>0.18</b>	0.293	<b>0.30</b>	-0.16	
23130	711	25RB-Low Rear	/	22.89	23	0.236	<b>0.24</b>	0.41	<b>0.42</b>	-0.16	
23130	711	25RB-Low Left	/	22.89	23	0.15	<b>0.15</b>	0.225	<b>0.23</b>	0.11	
23130	711	25RB-Low Top	/	22.89	23	0.192	<b>0.20</b>	0.405	<b>0.42</b>	0.11	

Note1: The distance between the EUT and the phantom bottom is 10mm. The LTE mode is QPSK\_10MHz.

Note2: The results are for SA and ENDC.

**Table 14.1-19: SAR Values (LTE Band13 - Head)**

Frequency		Mode	Side	Test Position	Figure No.	Conduct ed Power (dBm)	Max. tune-up Power (dBm)	Measure d SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measure d SAR(1g) (W/kg)	Reporte d SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz											
		Ambient Temperature: 22.9 °C				Liquid Temperature: 22.5°C						
23230	782	1RB_Low	Left	Cheek	/	22.88	23.5	0.256	<b>0.30</b>	0.441	<b>0.51</b>	0.04
23230	782	1RB_Low	Left	Tilt	/	22.88	23.5	0.253	<b>0.29</b>	0.468	<b>0.54</b>	-0.06
23230	782	1RB_Low	Right	Cheek	/	22.88	23.5	0.262	<b>0.30</b>	0.474	<b>0.55</b>	-0.17
23230	782	1RB_Low	Right	Tilt	Fig.19	22.88	23.5	0.28	<b>0.32</b>	0.527	<b>0.61</b>	0.05
23230	782	25RB-Mid	Left	Cheek	/	21.71	22.5	0.234	<b>0.28</b>	0.42	<b>0.50</b>	-0.14
23230	782	25RB-Mid	Left	Tilt	/	21.71	22.5	0.191	<b>0.23</b>	0.343	<b>0.41</b>	0.05
23230	782	25RB-Mid	Right	Cheek	/	21.71	22.5	0.189	<b>0.23</b>	0.337	<b>0.40</b>	0.18
23230	782	25RB-Mid	Right	Tilt	/	21.71	22.5	0.203	<b>0.24</b>	0.378	<b>0.45</b>	-0.04

Note1: The LTE mode is QPSK\_10MHz.

**Table 14.1-20: SAR Values (LTE Band13 – Body)**

Frequency		Mode	Figure No.	Conduct ed Power (dBm)	Ambient Temperature: 22.9 °C		Liquid Temperature: 22.5°C			Power Drift (dB)
Ch.	MHz				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)	
23230	782	1RB-Low Front	/	22.88	23.5	0.13	<b>0.15</b>	0.221	<b>0.25</b>	-0.09
23230	782	1RB-Low Rear	Fig.20	22.88	23.5	0.187	<b>0.22</b>	0.324	<b>0.37</b>	0.05
23230	782	1RB-Low Left	/	22.88	23.5	0.159	<b>0.18</b>	0.235	<b>0.27</b>	0.16
23230	782	1RB-Low Top	/	22.88	23.5	0.161	<b>0.19</b>	0.322	<b>0.37</b>	0.11
23230	782	25RB-Mid Front	/	21.71	22.5	0.096	<b>0.12</b>	0.163	<b>0.20</b>	0.01
23230	782	25RB-Mid Rear	/	21.71	22.5	0.137	<b>0.16</b>	0.239	<b>0.29</b>	0.11
23230	782	25RB-Mid Left	/	21.71	22.5	0.111	<b>0.13</b>	0.167	<b>0.20</b>	-0.08
23230	782	25RB-Mid Top	/	21.71	22.5	0.121	<b>0.15</b>	0.242	<b>0.29</b>	0.07

Note1: The distance between the EUT and the phantom bottom is 10mm. The LTE mode is QPSK\_10MHz.

**Table 14.1-21: SAR Values (LTE Band25 - Head)**

Frequency		Mode	Side	Test Position	Figure No.	Conduc ted Power (dBm)	Ambient Temperature: 22.9 °C		Liquid Temperature: 22.5°C			Power Drift (dB)
Ch.	MHz						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)	
26365	1882.5	1RB_Mid	Left	Cheek	/	20.18	20.5	0.177	<b>0.19</b>	0.3	<b>0.32</b>	-0.11
26365	1882.5	1RB_Mid	Left	Tilt	/	20.18	20.5	0.117	<b>0.13</b>	0.199	<b>0.21</b>	-0.01
26590	1905	1RB_Mid	Right	Cheek	/	20.14	20.5	0.422	<b>0.46</b>	0.878	<b>0.95</b>	0.06
26365	1882.5	1RB_Mid	Right	Cheek	/	20.18	20.5	0.409	<b>0.44</b>	0.858	<b>0.92</b>	-0.08
26140	1860	1RB_Mid	Right	Cheek	/	20.1	20.5	0.451	<b>0.49</b>	0.945	<b>1.04</b>	-0.14
26365	1882.5	1RB_Mid	Right	Tilt	/	20.18	20.5	0.129	<b>0.14</b>	0.232	<b>0.25</b>	-0.06
26365	1882.5	50RB-Low	Left	Cheek	/	20.25	20.5	0.164	<b>0.17</b>	0.268	<b>0.28</b>	-0.17
26365	1882.5	50RB-Low	Left	Tilt	/	20.25	20.5	0.125	<b>0.13</b>	0.211	<b>0.22</b>	0.08
26590	1905	50RB-Low	Right	Cheek	/	20.19	20.5	0.436	<b>0.47</b>	0.898	<b>0.96</b>	-0.05
26365	1882.5	50RB-Low	Right	Cheek	/	20.25	20.5	0.418	<b>0.44</b>	0.871	<b>0.92</b>	-0.15
26140	1860	50RB-Mid	Right	Cheek	Fig.21	20.17	20.5	0.47	<b>0.51</b>	0.986	<b>1.06</b>	0.02
26140	1860	100RB	Right	Cheek	/	20.09	20.5	0.435	<b>0.48</b>	0.943	<b>1.04</b>	0.15
26365	1882.5	50RB-Low	Right	Tilt	/	20.25	20.5	0.134	<b>0.14</b>	0.24	<b>0.25</b>	-0.15

Note1: The LTE mode is QPSK\_20MHz.

**Table 14.1-22: SAR Values (LTE Band25 – Body)**

Frequency		Mode	Figure No.	Conduct ed Power (dBm)	Ambient Temperature: 22.9 °C		Liquid Temperature: 22.5°C			Power Drift (dB)
Ch.	MHz				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)	
26365	1882.5	1RB-Low Front	/	21.19	21.5	0.183	<b>0.20</b>	0.332	<b>0.36</b>	0.12
26365	1882.5	1RB-Low Rear	/	21.19	21.5	0.39	<b>0.42</b>	0.752	<b>0.81</b>	-0.07
26365	1882.5	1RB-Low Left	/	21.19	21.5	0.418	<b>0.45</b>	0.845	<b>0.91</b>	0.12
26365	1882.5	1RB-Low Top	/	21.19	21.5	0.086	<b>0.09</b>	0.148	<b>0.16</b>	0.11
26365	1882.5	50RB-Low Front	/	21.28	21.5	0.199	<b>0.21</b>	0.359	<b>0.38</b>	-0.05
26365	1882.5	50RB-Low Rear	/	21.28	21.5	0.448	<b>0.47</b>	0.863	<b>0.91</b>	0.01
26140	1860	50RB-Low Left	Fig.22	21.19	21.5	0.478	<b>0.51</b>	0.968	<b>1.04</b>	0.17
26365	1882.5	50RB-Low Top	/	21.28	21.5	0.444	<b>0.47</b>	0.898	<b>0.94</b>	0.05

Note1: The distance between the EUT and the phantom bottom is 10mm. The LTE mode is QPSK\_10MHz.

**Table 14.1-23: SAR Values (LTE Band26 - Head)**

Frequency		Mode	Side	Test Position	Figure No.	Conduc ted Power (dBm)	Ambient Temperature: 22.9 °C		Liquid Temperature: 22.5°C			Power Drift (dB)
Ch.	MHz						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)	
26965	841.5	1RB_Mid	Left	Cheek	/	21.97	22.5	0.303	<b>0.34</b>	0.544	<b>0.61</b>	0.16
26965	841.5	1RB_Mid	Left	Tilt	/	21.97	22.5	0.289	<b>0.33</b>	0.554	<b>0.63</b>	0.09
26965	841.5	1RB_Mid	Right	Cheek	/	21.97	22.5	0.376	<b>0.42</b>	0.679	<b>0.77</b>	0.13
26775	822.5	1RB_Mid	Right	Tilt	/	21.96	22.5	0.298	<b>0.34</b>	0.576	<b>0.65</b>	-0.06
26865	831.5	1RB_Mid	Right	Tilt	/	21.94	22.5	0.335	<b>0.38</b>	0.646	<b>0.73</b>	-0.07
26965	841.5	1RB_Mid	Right	Tilt	Fig.23	21.97	22.5	0.376	<b>0.42</b>	0.715	<b>0.81</b>	-0.01
26965	841.5	100RB	Right	Tilt	/	21.91	22.5	0.353	<b>0.40</b>	0.685	<b>0.78</b>	0.15
26965	841.5	36RB-Low	Left	Cheek	/	21.98	22.5	0.289	<b>0.33</b>	0.522	<b>0.59</b>	-0.17
26965	841.5	36RB-Low	Left	Tilt	/	21.98	22.5	0.271	<b>0.31</b>	0.518	<b>0.58</b>	0.17
26965	841.5	36RB-Low	Right	Cheek	/	21.98	22.5	0.372	<b>0.42</b>	0.673	<b>0.76</b>	-0.17
26965	841.5	36RB-Low	Right	Tilt	/	21.98	22.5	0.363	<b>0.41</b>	0.691	<b>0.78</b>	-0.16

Note1: The LTE mode is QPSK\_15MHz.

**Table 14.1-24: SAR Values (LTE Band26 – Body)**

Frequency		Mode	Figure No.	Conduct ed 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										
		Ambient Temperature: 22.9 °C				Liquid Temperature: 22.5°C					
26965	841.5	1RB-Mid Front	/	24.21	25	0.253	<b>0.30</b>	0.434	<b>0.52</b>	-0.02	
26965	841.5	1RB-Mid Rear	/	24.21	25	0.323	<b>0.39</b>	0.561	<b>0.67</b>	0.16	
26965	841.5	1RB-Mid Left	/	24.21	25	0.194	<b>0.23</b>	0.295	<b>0.35</b>	0.08	
26965	841.5	1RB-Mid Top	Fig.24	24.21	25	0.312	<b>0.37</b>	0.615	<b>0.74</b>	0.09	
26965	841.5	36RB-Low Front	/	23.16	24	0.194	<b>0.24</b>	0.334	<b>0.41</b>	0.13	
26965	841.5	36RB-Low Rear	/	23.16	24	0.284	<b>0.34</b>	0.514	<b>0.62</b>	0.15	
26965	841.5	36RB-Low Left	/	23.16	24	0.144	<b>0.17</b>	0.219	<b>0.27</b>	-0.18	
26965	841.5	36RB-Low Top	/	23.16	24	0.232	<b>0.28</b>	0.475	<b>0.58</b>	-0.09	

Note1: The distance between the EUT and the phantom bottom is 10mm. The LTE mode is QPSK\_15MHz.

**Table 14.1-25: SAR Values (LTE Band41 PC3 - Head)**

Frequency		Mode	Side	Test Position	Figure No.	Conduct ed 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											
		Ambient Temperature: 22.9 °C				Liquid Temperature: 22.5°C						
41055	2636.5	1RB_Mid	Left	Cheek	/	23.18	24	0.293	<b>0.35</b>	0.642	<b>0.78</b>	0.15
41055	2636.5	1RB_Mid	Left	Tilt	/	23.18	24	0.111	<b>0.13</b>	0.221	<b>0.27</b>	-0.10
41055	2636.5	1RB_Mid	Right	Cheek	Fig.25	23.18	24	0.297	<b>0.36</b>	0.645	<b>0.78</b>	-0.17
41055	2636.5	1RB_Mid	Right	Tilt	/	23.18	24	0.057	<b>0.07</b>	0.111	<b>0.13</b>	0.06
41055	2636.5	50RB-Mid	Left	Cheek	/	22.17	23	0.248	<b>0.30</b>	0.528	<b>0.64</b>	0.12
41055	2636.5	50RB-Mid	Left	Tilt	/	22.17	23	0.086	<b>0.10</b>	0.165	<b>0.20</b>	0.07
41055	2636.5	50RB-Mid	Right	Cheek	/	22.17	23	0.274	<b>0.33</b>	0.614	<b>0.74</b>	-0.10
41055	2636.5	50RB-Mid	Right	Tilt	/	22.17	23	0.05	<b>0.06</b>	0.096	<b>0.12</b>	-0.11
41515	2682.5	UL CA	Left	Cheek	/	22.97	24	0.237	<b>0.30</b>	0.512	<b>0.65</b>	0.05

Note1: The LTE mode is QPSK\_20MHz.

**Table 14.1-26: SAR Values (LTE Band41 PC3 – Body)**

Ambient Temperature: 22.9 °C      Liquid Temperature: 22.5 °C

Frequency		Mode	Figure No.	Conduct ed 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									
41055	2636.5	1RB-Mid Front	/	23.18	24	0.104	<b>0.13</b>	0.211	<b>0.25</b>	0.12
41055	2636.5	1RB-Mid Rear	/	23.18	24	0.237	<b>0.29</b>	0.479	<b>0.58</b>	-0.15
41490	2680	1RB-Mid Right	/	23.16	24	0.264	<b>0.32</b>	0.549	<b>0.67</b>	-0.06
41055	2636.5	1RB-Mid Right	Fig.26	23.18	24	0.346	<b>0.42</b>	0.746	<b>0.90</b>	0.05
40620	2593	1RB-Mid Right	/	23.15	24	0.332	<b>0.40</b>	0.69	<b>0.84</b>	0.15
40185	2549.5	1RB-Mid Right	/	23.14	24	0.267	<b>0.33</b>	0.546	<b>0.67</b>	0.11
39750	2506	1RB-Mid Right	/	23.1	24	0.295	<b>0.36</b>	0.616	<b>0.76</b>	-0.06
41055	2636.5	100RB Right	/	22.08	23	0.288	<b>0.36</b>	0.565	<b>0.70</b>	-0.12
41055	2636.5	50RB-Mid Front	/	22.17	23	0.107	<b>0.13</b>	0.213	<b>0.26</b>	0.08
41055	2636.5	50RB-Mid Rear	/	22.17	23	0.234	<b>0.28</b>	0.488	<b>0.59</b>	-0.11
41490	2680	50RB-Mid Right	/	22.14	23	0.22	<b>0.27</b>	0.457	<b>0.56</b>	-0.07
41055	2636.5	50RB-Mid Right	/	22.17	23	0.261	<b>0.32</b>	0.545	<b>0.66</b>	-0.12
40620	2593	50RB-Mid Right	/	22.13	23	0.253	<b>0.31</b>	0.538	<b>0.66</b>	-0.06
40185	2549.5	50RB-Mid Right	/	22.1	23	0.222	<b>0.27</b>	0.455	<b>0.56</b>	0.12
39750	2506	50RB-Mid Right	/	22.11	23	0.242	<b>0.30</b>	0.505	<b>0.62</b>	0.07
41515	2682.5	UL CA Right	/	22.97	24	0.28	<b>0.35</b>	0.595	<b>0.75</b>	-0.04

Note: The distance between the EUT and the phantom bottom is 10mm. The LTE mode is QPSK\_20MHz.

**Table 14.1-27: SAR Values (LTE Band41 PC2 - Head)**

Frequency		Ambient Temperature: 22.9 °C					Liquid Temperature: 22.5°C					
Ch.	MHz	Mode	Side	Test Position	Figure No.	Conduct ed 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)
41490	2680	1RB_Mid	Left	Cheek	/	26.13	26.2	0.352	<b>0.36</b>	0.744	<b>0.76</b>	0.14
41055	2636.5	1RB_Mid	Left	Cheek	/	26.11	26.2	0.366	<b>0.37</b>	0.783	<b>0.80</b>	0.13
40620	2593	1RB_Mid	Left	Cheek	/	26.16	26.2	0.364	<b>0.37</b>	0.766	<b>0.77</b>	0.17
40185	2549.5	1RB_Mid	Left	Cheek	Fig.27	26.11	26.2	0.47	<b>0.48</b>	1.01	<b>1.03</b>	0.06
39750	2506	1RB_Mid	Left	Cheek	/	26.06	26.2	0.463	<b>0.48</b>	0.991	<b>1.02</b>	0.16
40185	2549.5	100RB	Left	Cheek	/	25.03	25.2	0.287	<b>0.30</b>	0.622	<b>0.65</b>	-0.11
40620	2593	1RB_Mid	Left	Tilt	/	26.16	26.2	0.132	<b>0.13</b>	0.261	<b>0.26</b>	-0.07
40620	2593	1RB_Mid	Right	Cheek	/	26.16	26.2	0.345	<b>0.35</b>	0.742	<b>0.75</b>	-0.09
40620	2593	1RB_Mid	Right	Tilt	/	26.16	26.2	0.066	<b>0.07</b>	0.128	<b>0.13</b>	0.10
40620	2593	50RB-Low	Left	Cheek	/	25.19	25.2	0.341	<b>0.34</b>	0.738	<b>0.74</b>	0.04
40620	2593	50RB-Low	Left	Tilt	/	25.19	25.2	0.131	<b>0.13</b>	0.258	<b>0.26</b>	-0.16
40620	2593	50RB-Low	Right	Cheek	/	25.19	25.2	0.277	<b>0.28</b>	0.6	<b>0.60</b>	-0.09
40620	2593	50RB-Low	Right	Tilt	/	25.19	25.2	0.055	<b>0.06</b>	0.109	<b>0.11</b>	-0.07
41515	2682.5	UL CA	Left	Cheek	/	25.97	26.2	0.2	<b>0.21</b>	0.615	<b>0.65</b>	0.03

Note1: The LTE mode is QPSK\_20MHz.

**Table 14.1-28: SAR Values (LTE Band41 PC2 – Body)**

Frequency		Ambient Temperature: 22.9 °C					Liquid Temperature: 22.5°C				
Ch.	MHz	Mode	Figure No.	Conduct ed 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)	
40620	2593	1RB-Mid Front	/	26.16	26.2	0.135	<b>0.14</b>	0.277	<b>0.28</b>	-0.12	
40620	2593	1RB-Mid Rear	/	26.16	26.2	0.266	<b>0.27</b>	0.539	<b>0.54</b>	0.11	
41490	2680	1RB-Mid Right	/	26.13	26.2	0.336	<b>0.34</b>	0.699	<b>0.71</b>	-0.10	
41055	2636.5	1RB-Mid Right	/	26.11	26.2	0.362	<b>0.37</b>	0.754	<b>0.77</b>	-0.12	
40620	2593	1RB-Mid Right	/	26.16	26.2	0.408	<b>0.41</b>	0.87	<b>0.88</b>	0.06	
40185	2549.5	1RB-Mid Right	Fig.28	26.11	26.2	0.539	<b>0.55</b>	1.15	<b>1.17</b>	0.11	
39750	2506	1RB-Mid Right	/	26.06	26.2	0.468	<b>0.48</b>	1.02	<b>1.05</b>	0.14	
40185	2549.5	100RB Right	/	25.03	25.2	0.355	<b>0.37</b>	0.768	<b>0.80</b>	-0.15	
40620	2593	50RB-Mid Front	/	25.19	25.2	0.106	<b>0.11</b>	0.224	<b>0.22</b>	-0.02	
40620	2593	50RB-Mid Rear	/	25.19	25.2	0.217	<b>0.22</b>	0.45	<b>0.45</b>	0.04	
40620	2593	50RB-Mid Right	/	25.19	25.2	0.342	<b>0.34</b>	0.735	<b>0.74</b>	0.10	
41515	2682.5	UL CA Right	/	25.97	26.2	0.396	<b>0.42</b>	0.842	<b>0.89</b>	-0.18	

Note: The distance between the EUT and the phantom bottom is 10mm. The LTE mode is QPSK\_20MHz.

**Table 14.1-29: SAR Values (LTE Band66 ANT2 - Head)**

Ambient Temperature: 22.9 °C      Liquid Temperature: 22.5 °C

Frequency		Mode	Side	Test Position	Figure No.	Conduct ed 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	/	20.12	21	0.194	<b>0.24</b>	0.315	<b>0.39</b>	0.15
132322	1745	1RB_Mid	Left	Tilt	/	20.12	21	0.121	<b>0.15</b>	0.211	<b>0.26</b>	-0.09
132572	1770	1RB_Mid	Right	Cheek	Fig.29	20.06	21	0.376	<b>0.47</b>	0.761	<b>0.94</b>	0.02
132322	1745	1RB_Mid	Right	Cheek	/	20.12	21	0.346	<b>0.42</b>	0.695	<b>0.85</b>	0.15
132072	1720	1RB_Mid	Right	Cheek	/	20.1	21	0.312	<b>0.38</b>	0.625	<b>0.77</b>	0.12
132572	1770	100RB	Right	Cheek	/	20.09	21	0.358	<b>0.44</b>	0.733	<b>0.90</b>	0.16
132322	1745	1RB_Mid	Right	Tilt	/	20.12	21	0.107	<b>0.13</b>	0.185	<b>0.23</b>	-0.11
132322	1745	50RB-Low	Left	Cheek	/	20.21	21	0.224	<b>0.27</b>	0.397	<b>0.48</b>	-0.04
132322	1745	50RB-Low	Left	Tilt	/	20.21	21	0.092	<b>0.11</b>	0.156	<b>0.19</b>	-0.13
132572	1770	50RB-Low	Right	Cheek	/	20.17	21	0.372	<b>0.45</b>	0.751	<b>0.91</b>	-0.05
132322	1745	50RB-Low	Right	Cheek	/	20.21	21	0.354	<b>0.42</b>	0.719	<b>0.86</b>	-0.02
132072	1720	50RB-Low	Right	Cheek	/	20.19	21	0.314	<b>0.38</b>	0.636	<b>0.77</b>	-0.07
132322	1745	50RB-Low	Right	Tilt	/	20.21	21	0.109	<b>0.13</b>	0.196	<b>0.24</b>	0.08
132322	1745	1RB_Mid	Left	Cheek	Note2	19.4	19.6	0.254	<b>0.27</b>	0.506	<b>0.53</b>	-0.15
132322	1745	1RB_Mid	Left	Tilt	Note2	19.4	19.6	0.098	<b>0.10</b>	0.173	<b>0.18</b>	0.06
132322	1745	1RB_Mid	Right	Cheek	Note2	19.4	19.6	0.338	<b>0.35</b>	0.69	<b>0.72</b>	0.07
132322	1745	1RB_Mid	Right	Tilt	Note2	19.4	19.6	0.103	<b>0.11</b>	0.187	<b>0.20</b>	-0.11
132322	1745	50RB-Low	Left	Cheek	Note2	19.33	19.6	0.173	<b>0.18</b>	0.311	<b>0.33</b>	-0.06
132322	1745	50RB-Low	Left	Tilt	Note2	19.33	19.6	0.088	<b>0.09</b>	0.154	<b>0.16</b>	0.11
132322	1745	50RB-Low	Right	Cheek	Note2	19.33	19.6	0.291	<b>0.31</b>	0.58	<b>0.62</b>	0.07
132322	1745	50RB-Low	Right	Tilt	Note2	19.33	19.6	0.094	<b>0.10</b>	0.164	<b>0.17</b>	0.13

Note1: The LTE mode is QPSK\_20MHz.

Note2: The results are for ENDC only.



**Table 14.1-30: SAR Values (LTE Band66 ANT2 – Body)**

Frequency		Mode	Figure No.	Conduct ed 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	/	21.48	22	0.171	<b>0.19</b>	0.294	<b>0.33</b>	-0.06
132322	1745	1RB-Mid Rear	/	21.48	22	0.268	<b>0.30</b>	0.486	<b>0.55</b>	-0.12
132322	1745	1RB-Mid Left	Fig.30	21.48	22	0.384	<b>0.43</b>	0.7	<b>0.79</b>	-0.13
132322	1745	1RB-Mid Top	/	21.48	22	0.086	<b>0.10</b>	0.137	<b>0.15</b>	0.06
132322	1745	50RB-Low Front	/	21.45	22	0.163	<b>0.19</b>	0.282	<b>0.32</b>	0.12
132322	1745	50RB-Low Rear	/	21.45	22	0.271	<b>0.31</b>	0.492	<b>0.56</b>	0.07
132322	1745	50RB-Low Left	/	21.45	22	0.376	<b>0.43</b>	0.688	<b>0.78</b>	-0.01
132322	1745	50RB-Low Top	/	21.45	22	0.08	<b>0.09</b>	0.128	<b>0.15</b>	0.16

Note1: The distance between the EUT and the phantom bottom is 10mm. The LTE mode is QPSK\_20MHz.

Note2: The results are for SA and ENDC.

**Table 14.1-31: SAR Values (LTE Band66 ANT1 - Head)**

Frequency		Mode	Side	Test Position	Figure No.	Conduct ed Power (dBm)	Max. tune-up Power (dBm)	Measure d SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measure d SAR(1g) (W/kg)	Reporte d SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz											
132322	1745	1RB_Mid	Left	Cheek	/	23.78	24	0.04	<b>0.04</b>	0.059	<b>0.06</b>	0.13
132322	1745	1RB_Mid	Left	Tilt	/	23.78	24	0.023	<b>0.02</b>	0.037	<b>0.04</b>	-0.13
132322	1745	1RB_Mid	Right	Cheek	/	23.78	24	0.028	<b>0.03</b>	0.043	<b>0.05</b>	-0.12
132322	1745	1RB_Mid	Right	Tilt	/	23.78	24	0.026	<b>0.03</b>	0.038	<b>0.04</b>	0.12
132322	1745	50RB-Low	Left	Cheek	/	22.84	23	0.037	<b>0.04</b>	0.055	<b>0.06</b>	-0.03
132322	1745	50RB-Low	Left	Tilt	/	22.84	23	0.019	<b>0.02</b>	0.029	<b>0.03</b>	-0.18
132322	1745	50RB-Low	Right	Cheek	Fig.31	22.84	23	0.051	<b>0.05</b>	0.076	<b>0.08</b>	0.04
132322	1745	50RB-Low	Right	Tilt	/	22.84	23	0.023	<b>0.02</b>	0.035	<b>0.04</b>	0.05

Note1: The LTE mode is QPSK\_20MHz.

Note2: All the results are for ENDC only.

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

Frequency		Mode	Figure No.	Conduct ed 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	/	20.75	21	0.139	<b>0.15</b>	0.244	<b>0.26</b>	-0.11
132322	1745	1RB-Mid Rear	/	20.75	21	0.202	<b>0.21</b>	0.349	<b>0.37</b>	0.06
132322	1745	1RB-Mid Right	/	20.75	21	0.038	<b>0.04</b>	0.066	<b>0.07</b>	-0.07
132322	1745	1RB-Mid Bottom	/	20.75	21	0.268	<b>0.28</b>	0.483	<b>0.51</b>	0.15
132322	1745	50RB-Low Front	/	20.86	21	0.138	<b>0.14</b>	0.235	<b>0.24</b>	-0.12
132322	1745	50RB-Low Rear	/	20.86	21	0.22	<b>0.23</b>	0.397	<b>0.41</b>	0.08
132322	1745	50RB-Low Right	/	20.86	21	0.037	<b>0.04</b>	0.063	<b>0.07</b>	-0.14
132322	1745	50RB-Low Bottom	Fig.32	20.86	21	0.281	<b>0.29</b>	0.505	<b>0.52</b>	0.07

Note1: The distance between the EUT and the phantom bottom is 10mm. The LTE mode is QPSK\_20MHz.

**Table 14.1-33: SAR Values (LTE Band71 - Head)**

Frequency		Mode	Side	Test Position	Figure No.	Conduct ed Power (dBm)	Max. tune-up Power (dBm)	Measure d SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measure d SAR(1g) (W/kg)	Reporte d SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz											
133222	673	1RB_Low	Left	Cheek	/	23.64	25	0.257	<b>0.35</b>	0.467	<b>0.64</b>	0.15
133222	673	1RB_Low	Left	Tilt	/	23.64	25	0.272	<b>0.37</b>	0.517	<b>0.71</b>	0.06
133372	688	1RB_Low	Right	Cheek	/	23.54	25	0.271	<b>0.38</b>	0.481	<b>0.67</b>	-0.02
133322	683	1RB_Low	Right	Cheek	/	23.58	25	0.295	<b>0.41</b>	0.522	<b>0.72</b>	0.03
133222	673	1RB_Low	Right	Cheek	/	23.64	25	0.31	<b>0.42</b>	0.578	<b>0.79</b>	-0.11
133222	673	100RB	Right	Cheek	/	22.52	24	0.219	<b>0.31</b>	0.409	<b>0.58</b>	-0.15
133372	688	1RB_Low	Right	Tilt	/	23.54	25	0.338	<b>0.47</b>	0.641	<b>0.90</b>	-0.09
133322	683	1RB_Low	Right	Tilt	/	23.58	25	0.334	<b>0.46</b>	0.626	<b>0.87</b>	0.07
133222	673	1RB_Low	Right	Tilt	Fig.33	23.64	25	0.359	<b>0.49</b>	0.665	<b>0.91</b>	-0.08
133372	688	100RB	Right	Tilt	/	22.52	24	0.192	<b>0.27</b>	0.357	<b>0.50</b>	0.12
133222	673	50RB-Mid	Left	Cheek	/	22.58	24	0.182	<b>0.25</b>	0.341	<b>0.47</b>	0.09
133222	673	50RB-Mid	Left	Tilt	/	22.58	24	0.222	<b>0.31</b>	0.408	<b>0.57</b>	-0.18
133222	673	50RB-Mid	Right	Cheek	/	22.58	24	0.245	<b>0.34</b>	0.429	<b>0.59</b>	-0.18
133222	673	50RB-Mid	Right	Tilt	/	22.58	24	0.025	<b>0.03</b>	0.468	<b>0.65</b>	0.01

Note1: The LTE mode is QPSK\_20MHz.

**Table 14.1-34: SAR Values (LTE Band71 – Body)**

Frequency		Mode	Figure No.	Conduct ed Power (dBm)	Ambient Temperature: 22.9°C		Liquid Temperature: 22.5°C			Power Drift (dB)
Ch.	MHz				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)	
133222	673	1RB-Low Front	/	23.64	25	0.177	<b>0.24</b>	0.289	<b>0.40</b>	-0.07
133222	673	1RB-Low Rear	Fig.34	23.64	25	0.243	<b>0.33</b>	0.416	<b>0.57</b>	0.03
133222	673	1RB-Low Left	/	23.64	25	0.246	<b>0.34</b>	0.361	<b>0.49</b>	-0.05
133222	673	1RB-Low Top	/	23.64	25	0.198	<b>0.27</b>	0.389	<b>0.53</b>	0.17
133222	673	50RB-Mid Front	/	22.58	24	0.118	<b>0.16</b>	0.202	<b>0.28</b>	-0.04
133222	673	50RB-Mid Rear	/	22.58	24	0.172	<b>0.24</b>	0.298	<b>0.41</b>	-0.04
133222	673	50RB-Mid Left	/	22.58	24	0.128	<b>0.18</b>	0.19	<b>0.26</b>	0.14
133222	673	50RB-Mid Top	/	22.58	24	0.139	<b>0.19</b>	0.275	<b>0.38</b>	0.06

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 n25-Head)**

Frequency		Side	Test Position	Figure No./Note	Ambient Temperature: 22.9°C		Liquid Temperature: 22.5°C			Power Drift (dB)	
Ch.	MHz				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)
376500	1882.5	Left	Cheek	/	19.88	20	0.224	<b>0.23</b>	0.385	<b>0.40</b>	0.09
376500	1882.5	Left	Tilt	/	19.88	20	0.153	<b>0.16</b>	0.277	<b>0.28</b>	-0.14
381000	1905	Right	Cheek	/	19.77	20	0.528	<b>0.56</b>	1.09	<b>1.15</b>	-0.12
376500	1882.5	Right	Cheek	Fig.35	19.88	20	0.55	<b>0.57</b>	1.14	<b>1.17</b>	-0.08
372000	1860	Right	Cheek	/	19.78	20	0.533	<b>0.56</b>	1.09	<b>1.15</b>	-0.14
376500	1882.5	Right	Tilt	/	19.88	20	0.18	<b>0.19</b>	0.335	<b>0.34</b>	-0.12
376500	1882.5	Left	Cheek	Note1	17.88	18	0.16	<b>0.16</b>	0.289	<b>0.30</b>	-0.15
376500	1882.5	Left	Tilt	Note1	17.88	18	0.089	<b>0.09</b>	0.153	<b>0.16</b>	0.18
376500	1882.5	Right	Cheek	Note1	17.88	18	0.318	<b>0.33</b>	0.656	<b>0.67</b>	0.16
376500	1882.5	Right	Tilt	Note1	17.88	18	0.115	<b>0.12</b>	0.213	<b>0.22</b>	-0.14

Note1: The results are for ENDC only.

**Table 14.2-2: SAR Values (5G NR n25-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									
376500	1882.5	Front	/	20.94	21	0.219	<b>0.22</b>	0.413	<b>0.42</b>	-0.09
381000	1905	Rear	/	20.89	21	0.453	<b>0.46</b>	0.914	<b>0.94</b>	0.07
376500	1882.5	Rear	/	20.94	21	0.505	<b>0.51</b>	1.02	<b>1.03</b>	0.09
372000	1860	Rear	/	20.88	21	0.446	<b>0.46</b>	0.895	<b>0.92</b>	-0.12
381000	1905	Left	/	20.89	21	0.526	<b>0.54</b>	1.04	<b>1.07</b>	0.14
376500	1882.5	Left	Fig.36	20.94	21	0.563	<b>0.57</b>	1.12	<b>1.14</b>	0.02
372000	1860	Left	/	20.88	21	0.545	<b>0.56</b>	1.08	<b>1.11</b>	-0.03
376500	1882.5	Top	/	20.94	21	0.106	<b>0.11</b>	0.186	<b>0.19</b>	0.02
376500	1882.5	Front	Note2	17.88	18	0.114	<b>0.12</b>	0.205	<b>0.21</b>	-0.01
376500	1882.5	Rear	Note2	17.88	18	0.27	<b>0.28</b>	0.385	<b>0.40</b>	-0.16
376500	1882.5	Left	Note2	17.88	18	0.289	<b>0.30</b>	0.573	<b>0.59</b>	0.19
376500	1882.5	Top	Note2	17.88	18	0.056	<b>0.06</b>	0.094	<b>0.10</b>	-0.09

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

Note2: The results are for ENDC only.

**Table 14.2-3: SAR Values (5G NR n41-Head)**

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										
535998	2679.99	Left	Cheek	/	25.3	25.6	0.379	<b>0.41</b>	0.845	<b>0.91</b>	0.09
527298	2636.49	Left	Cheek	/	25.31	25.6	0.375	<b>0.40</b>	0.838	<b>0.90</b>	0.13
518598	2592.99	Left	Cheek	/	25.33	25.6	0.363	<b>0.39</b>	0.759	<b>0.81</b>	-0.05
509902	2549.51	Left	Cheek	/	25.28	25.6	0.321	<b>0.35</b>	0.66	<b>0.71</b>	-0.11
501204	2506.02	Left	Cheek	/	25.27	25.6	0.302	<b>0.33</b>	0.635	<b>0.69</b>	0.09
518598	2592.99	Left	Tilt	/	25.33	25.6	0.134	<b>0.14</b>	0.26	<b>0.28</b>	-0.11
535998	2679.99	Right	Cheek	Fig.37	25.3	25.6	0.448	<b>0.48</b>	1.01	<b>1.08</b>	-0.11
527298	2636.49	Right	Cheek	/	25.31	25.6	0.462	<b>0.49</b>	0.997	<b>1.07</b>	0.02
518598	2592.99	Right	Cheek	/	25.33	25.6	0.403	<b>0.43</b>	0.843	<b>0.90</b>	-0.13
509902	2549.51	Right	Cheek	/	25.28	25.6	0.357	<b>0.38</b>	0.733	<b>0.79</b>	0.05
501204	2506.02	Right	Cheek	/	25.27	25.6	0.335	<b>0.36</b>	0.706	<b>0.76</b>	0.11
518598	2592.99	Right	Tilt	/	25.33	25.6	0.074	<b>0.08</b>	0.134	<b>0.14</b>	0.12
518598	2592.99	Left	Cheek	Note1	21.4	22	0.108	<b>0.12</b>	0.417	<b>0.48</b>	-0.11

518598	2592.99	Left	Tilt	Note1	21.4	22	0.038	<b>0.04</b>	0.131	<b>0.15</b>	0.05
518598	2592.99	Right	Cheek	Note1	21.4	22	0.174	<b>0.20</b>	0.69	<b>0.79</b>	0.17
518598	2592.99	Right	Tilt	Note1	21.4	22	0.025	<b>0.03</b>	0.079	<b>0.09</b>	-0.18

Note1: The results are for ENDC only.

**Table 14.2-4: SAR Values (5G NR n41-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									
Ambient Temperature: 22.9 °C      Liquid Temperature: 22.5°C										
518598	2592.99	Front	/	24.25	24.5	0.127	<b>0.13</b>	0.26	<b>0.28</b>	-0.05
518598	2592.99	Rear	/	24.25	24.5	0.267	<b>0.28</b>	0.556	<b>0.59</b>	0.07
535998	2679.99	Right	/	24.23	24.5	0.321	<b>0.34</b>	0.675	<b>0.72</b>	-0.11
527298	2636.49	Right	/	24.23	24.5	0.347	<b>0.37</b>	0.72	<b>0.77</b>	0.09
518598	2592.99	Right	/	24.25	24.5	0.424	<b>0.45</b>	0.901	<b>0.95</b>	-0.12
509902	2549.51	Right	Fig.38	24.22	24.5	0.502	<b>0.54</b>	1.07	<b>1.14</b>	0.11
501204	2506.02	Right	/	24.18	24.5	0.381	<b>0.41</b>	0.837	<b>0.90</b>	0.06
518598	2592.99	Front	/	22.48	22.7	0.097	<b>0.10</b>	0.193	<b>0.20</b>	-0.15
518598	2592.99	Rear	/	22.48	22.7	0.179	<b>0.19</b>	0.36	<b>0.38</b>	0.15
518598	2592.99	Right	/	22.48	22.7	0.316	<b>0.33</b>	0.673	<b>0.71</b>	0.20

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

**Table 14.2-5: SAR Values (5G NR n66-Head)**

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										
349000	1745	Left	Cheek	/	19.87	20	0.21	<b>0.22</b>	0.363	<b>0.37</b>	0.04
349000	1745	Left	Tilt	/	19.87	20	0.127	<b>0.13</b>	0.233	<b>0.24</b>	-0.14
352000	1760	Right	Cheek	/	19.82	20	0.496	<b>0.52</b>	1.01	<b>1.05</b>	0.19
349000	1745	Right	Cheek	Fig.39	19.87	20	0.503	<b>0.52</b>	1.03	<b>1.06</b>	-0.08
346000	1730	Right	Cheek	/	19.75	20	0.46	<b>0.49</b>	0.947	<b>1.00</b>	0.06
349000	1745	Right	Tilt	/	19.87	20	0.163	<b>0.17</b>	0.317	<b>0.33</b>	-0.14
349000	1745	Left	Cheek	Note1	18.84	19	0.169	<b>0.18</b>	0.305	<b>0.32</b>	0.02
349000	1745	Left	Tilt	Note1	18.84	19	0.091	<b>0.09</b>	0.16	<b>0.17</b>	0.15
349000	1745	Right	Cheek	Note1	18.84	19	0.331	<b>0.34</b>	0.68	<b>0.71</b>	-0.05
349000	1745	Right	Tilt	Note1	18.84	19	0.114	<b>0.12</b>	0.211	<b>0.22</b>	-0.01

Note1: The results are for ENDC only.

**Table 14.2-6: SAR Values (5G NR n66-Body)**

Frequency		Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Report ed SAR(10g)(W/kg)	Measure d SAR(1g) (W/kg)	Reporte d SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz									
349000	1745	Front	/	20.89	21.4	0.173	<b>0.19</b>	0.3	<b>0.34</b>	0.15
352000	1760	Rear	/	20.83	21.4	0.41	<b>0.47</b>	0.79	<b>0.90</b>	-0.04
349000	1745	Rear	/	20.89	21.4	0.378	<b>0.43</b>	0.727	<b>0.82</b>	0.05
346000	1730	Rear	/	20.87	21.4	0.353	<b>0.40</b>	0.683	<b>0.77</b>	0.17
352000	1760	Left	/	20.83	21.4	0.469	<b>0.53</b>	0.913	<b>1.04</b>	0.05
349000	1745	Left	Fig.40	20.89	21.4	0.481	<b>0.54</b>	0.94	<b>1.06</b>	0.02
346000	1730	Left	/	20.87	21.4	0.449	<b>0.51</b>	0.878	<b>0.99</b>	0.18
349000	1745	Top	/	20.89	21.4	0.089	<b>0.10</b>	0.149	<b>0.17</b>	0.16
349000	1745	Front	Note2	17.82	18	0.082	<b>0.09</b>	0.139	<b>0.14</b>	-0.18
349000	1745	Rear	Note2	17.82	18	0.166	<b>0.17</b>	0.32	<b>0.33</b>	0.10
349000	1745	Left	Note2	17.82	18	0.216	<b>0.23</b>	0.417	<b>0.43</b>	0.05
349000	1745	Top	Note2	17.82	18	0.045	<b>0.05</b>	0.076	<b>0.08</b>	-0.12

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

Note2: The results are for ENDC only.

**Table 14.2-7: SAR Values (5G NR n71-Head)**

Frequency		Ambient Temperature: 22.9 °C					Liquid Temperature: 22.5 °C				
Ch.	MHz	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)
137600	688	Left	Cheek	/	23.88	24.5	0.216	<b>0.25</b>	0.365	<b>0.42</b>	-0.08
136100	680.5	Left	Cheek	/	23.94	24.5	0.403	<b>0.46</b>	0.705	<b>0.80</b>	0.03
134600	673	Left	Cheek	/	23.89	24.5	0.308	<b>0.35</b>	0.533	<b>0.61</b>	0.13
137600	688	Left	Tilt	/	23.88	24.5	0.261	<b>0.30</b>	0.473	<b>0.55</b>	0.08
136100	680.5	Left	Tilt	/	23.94	24.5	0.411	<b>0.47</b>	0.749	<b>0.85</b>	0.07
134600	673	Left	Tilt	/	23.89	24.5	0.232	<b>0.27</b>	0.642	<b>0.74</b>	-0.10
137600	688	Right	Cheek	/	23.88	24.5	0.25	<b>0.29</b>	0.413	<b>0.48</b>	-0.02
136100	680.5	Right	Cheek	/	23.94	24.5	0.461	<b>0.52</b>	0.792	<b>0.90</b>	-0.02
134600	673	Right	Cheek	/	23.89	24.5	0.349	<b>0.40</b>	0.592	<b>0.68</b>	0.05
137600	688	Right	Tilt	/	23.88	24.5	0.312	<b>0.36</b>	0.57	<b>0.66</b>	0.16
136100	680.5	Right	Tilt	Fig.41	23.94	24.5	0.491	<b>0.56</b>	0.902	<b>1.03</b>	-0.03
134600	673	Right	Tilt	/	23.89	24.5	0.277	<b>0.32</b>	0.773	<b>0.89</b>	0.03
136100	680.5	Left	Cheek	Note1	19.83	20	0.177	<b>0.18</b>	0.283	<b>0.29</b>	0.05
136100	680.5	Left	Tilt	Note1	19.83	20	0.171	<b>0.18</b>	0.29	<b>0.30</b>	-0.06
136100	680.5	Right	Cheek	Note1	19.83	20	0.233	<b>0.24</b>	0.408	<b>0.42</b>	-0.01
136100	680.5	Right	Tilt	Note1	19.83	20	0.207	<b>0.22</b>	0.361	<b>0.38</b>	0.12

Note1: The results are for ENDC only.

**Table 14.2-8: SAR Values (5G NR n71-Body)**

Frequency		Ambient Temperature: 22.9 °C					Liquid Temperature: 22.5 °C			
Ch.	MHz	Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Report ed SAR(10g)(W/kg)	Measure d SAR(1g) (W/kg)	Reporte d SAR(1g) (W/kg)	Power Drift (dB)
136100	680.5	Front	/	23.94	24.5	0.242	<b>0.28</b>	0.405	<b>0.46</b>	0.06
136100	680.5	Rear	Fig.42	23.94	24.5	0.328	<b>0.37</b>	0.577	<b>0.66</b>	-0.14
136100	680.5	Left	/	23.94	24.5	0.262	<b>0.30</b>	0.388	<b>0.44</b>	-0.05
136100	680.5	Top	/	23.94	24.5	0.274	<b>0.31</b>	0.569	<b>0.65</b>	-0.01
136100	680.5	Front	Note2	21.89	22	0.126	<b>0.13</b>	0.206	<b>0.21</b>	-0.06
136100	680.5	Rear	Note2	21.89	22	0.179	<b>0.18</b>	0.311	<b>0.32</b>	-0.07
136100	680.5	Left	Note2	21.89	22	0.123	<b>0.13</b>	0.175	<b>0.18</b>	0.06
136100	680.5	Top	Note2	21.89	22	0.136	<b>0.14</b>	0.278	<b>0.29</b>	-0.15

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

Note2: The results are for ENDC only.

**Table 14.2-9: SAR Values (5G NR n77-Head)**

Frequency		Ambient Temperature: 22.9 °C					Liquid Temperature: 22.5 °C				
Ch.	MHz	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)
633334	3500.01	Left	Cheek	/	23.23	24	0.241	<b>0.29</b>	0.577	<b>0.69</b>	0.11
633334	3500.01	Left	Tilt	/	23.23	24	0.089	<b>0.11</b>	0.212	<b>0.25</b>	0.06
633334	3500.01	Right	Cheek	/	23.23	24	0.21	<b>0.25</b>	0.513	<b>0.61</b>	-0.12
633334	3500.01	Right	Tilt	/	23.23	24	0.048	<b>0.06</b>	0.103	<b>0.12</b>	0.06
650800	3762	Left	Cheek	Fig.43	23.19	24	0.234	<b>0.28</b>	0.65	<b>0.78</b>	0.2
650800	3762	Left	Tilt	/	23.19	24	0.141	<b>0.17</b>	0.347	<b>0.42</b>	0.06
650800	3762	Right	Cheek	/	23.19	24	0.214	<b>0.26</b>	0.502	<b>0.60</b>	-0.05
650800	3762	Right	Tilt	/	23.19	24	0.047	<b>0.06</b>	0.1	<b>0.12</b>	0.12

**Table 14.2-10: SAR Values (5G NR n77-Body)**

Frequency		Ambient Temperature: 22.9 °C					Liquid Temperature: 22.5 °C				
Ch.	MHz	Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Report ed SAR(10g)(W/kg)	Measure d SAR(1g) (W/kg)	Reporte d SAR(1g) (W/kg)	Power Drift (dB)	
633334	3500.01	Front	/	23.23	24	0.045	<b>0.05</b>	0.099	<b>0.12</b>	0.15	
633334	3500.01	Rear	/	23.23	24	0.11	<b>0.13</b>	0.244	<b>0.29</b>	-0.12	
633334	3500.01	Right	/	23.23	24	0.149	<b>0.18</b>	0.338	<b>0.40</b>	-0.08	
650800	3762	Front	/	23.19	24	0.077	<b>0.09</b>	0.168	<b>0.20</b>	0.09	
650800	3762	Rear	/	23.19	24	0.192	<b>0.23</b>	0.441	<b>0.53</b>	-0.11	
650800	3762	Right	Fig.44	23.19	24	0.255	<b>0.31</b>	0.636	<b>0.77</b>	0.10	

Note1: 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)**

Frequency		Side	Test Position	Note	Ambient Temperature: 22.9 °C		Liquid Temperature: 22.5°C		Measured SAR(1g) (W/kg)	Reported SAR(1g)(W/kg)	Power Drift (dB)
Ch.	MHz				Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g)(W/kg)			
11	2462	Left	Cheek	Note1	17.86	18	0.345	<b>0.36</b>	0.611	<b>0.63</b>	-0.15
1	2412	Left	Cheek	Note1	17.36	18	0.461	<b>0.53</b>	0.843	<b>0.98</b>	0.11
11	2462	Left	Tilt	Note1	17.86	18	0.203	<b>0.21</b>	0.411	<b>0.42</b>	0.07
11	2462	Right	Cheek	Note1	17.86	18	0.155	<b>0.16</b>	0.282	<b>0.29</b>	0.12
11	2462	Right	Tilt	Note1	17.86	18	0.092	<b>0.10</b>	0.174	<b>0.18</b>	0.10
11	2462	Left	Cheek	Note2	13.58	14	0.131	<b>0.14</b>	0.238	<b>0.26</b>	0.15
11	2462	Left	Tilt	Note2	13.58	14	0.117	<b>0.13</b>	0.245	<b>0.27</b>	0.20
11	2462	Right	Cheek	Note2	13.58	14	0.057	<b>0.06</b>	0.109	<b>0.12</b>	-0.15
11	2462	Right	Tilt	Note2	13.58	14	0.043	<b>0.05</b>	0.095	<b>0.10</b>	0.10

Note1: The results are for Wifi antenna transmit standalone.

Note2: The results are for Wifi antenna transmit with WWAN.

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

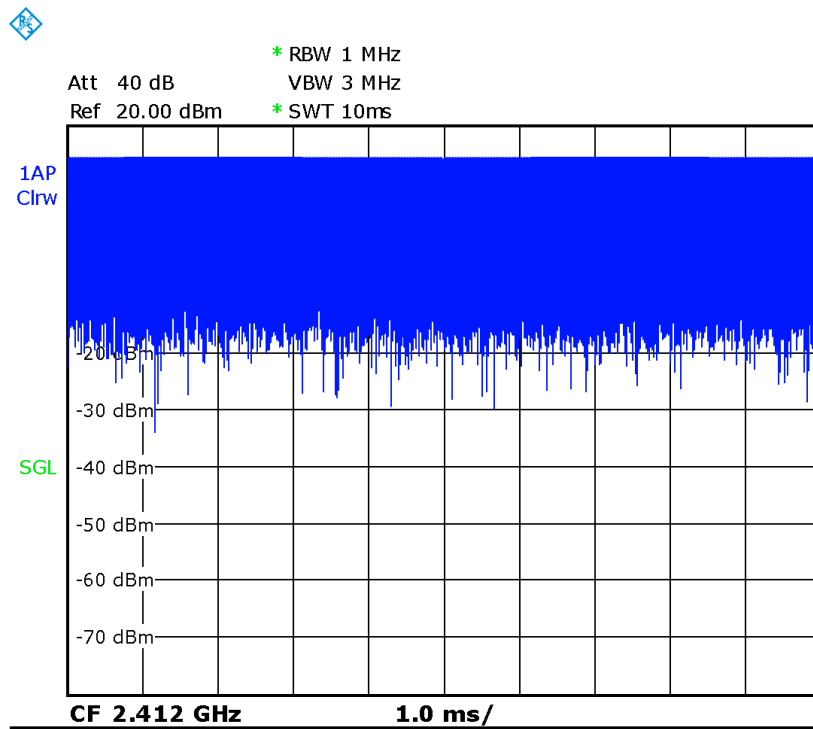
**Table 14.3-2: SAR Values (WLAN - Head)– 802.11b (Full SAR)**

Frequency		Side	Test Position	Figure No./ Note	Ambient Temperature: 22.9 °C		Liquid Temperature: 22.5°C		Measured SAR(1g) (W/kg)	Reported SAR(1g)(W/kg)	Power Drift (dB)
Ch.	MHz				Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g)(W/kg)			
11	2462	Left	Cheek	/	17.86	18	0.349	<b>0.36</b>	0.615	<b>0.64</b>	-0.15
1	2412	Left	Cheek	Fig.45	17.36	18	0.465	<b>0.54</b>	0.849	<b>0.98</b>	0.11
11	2462	Left	Tilt	/	17.86	18	0.205	<b>0.21</b>	0.41	<b>0.42</b>	0.07

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)

Frequency		Side	Test Position	Actual duty factor	maximum duty factor	Ambient Temperature: 22.9 °C      Liquid Temperature: 22.5 °C	
Ch.	MHz					Reported SAR (1g)(W/kg)	Scaled reported SAR (1g)(W/kg)
1	2412	Left	Cheek	100%	100%	<b>0.98</b>	<b>0.98</b>

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

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

Frequency		Test Position	Figure No./ Note	Ambient Temperature: 22.9 °C		Liquid Temperature: 22.5 °C				Power Drift (dB)
Ch.	MHz			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)	
11	2462	Front	Note1	20.02	20.5	0.159	<b>0.18</b>	0.273	<b>0.30</b>	0.07
11	2462	Rear	Note1	20.02	20.5	0.198	<b>0.22</b>	0.364	<b>0.41</b>	-0.14
1	2412	Right	Note1	19.39	20.5	0.251	<b>0.32</b>	0.513	<b>0.66</b>	-0.08
11	2462	Right	Note1	20.02	20.5	0.215	<b>0.24</b>	0.437	<b>0.49</b>	0.06
11	2462	Top	Note1	20.02	20.5	0.146	<b>0.16</b>	0.323	<b>0.36</b>	0.18
11	2462	Front	Note2	17.14	17.5	0.085	<b>0.09</b>	0.149	<b>0.16</b>	0.14
11	2462	Rear	Note2	17.14	17.5	0.1	<b>0.11</b>	0.178	<b>0.19</b>	0.07
11	2462	Right	Note2	17.14	17.5	0.115	<b>0.12</b>	0.238	<b>0.26</b>	-0.06
11	2462	Top	Note2	17.14	17.5	0.084	<b>0.09</b>	0.204	<b>0.22</b>	0.14

Note1: The results are for Wifi antenna transmit standalone.

Note2: The results are for Wifi antenna transmit with WWAN.

Note3: The distance between the EUT and the phantom bottom is 10mm.

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

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

Frequency		Test Position	Figure No./ Note	Ambient Temperature: 22.9 °C		Liquid Temperature: 22.5 °C				Power Drift (dB)
Ch.	MHz			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)	
11	2462	Right	/	20.02	20.5	0.219	<b>0.24</b>	0.441	<b>0.49</b>	0.06
1	2412	Right	Fig.46	19.39	20.5	0.254	<b>0.33</b>	0.517	<b>0.67</b>	-0.08
11	2462	Rear	/	20.02	20.5	0.202	<b>0.23</b>	0.366	<b>0.41</b>	-0.14

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.

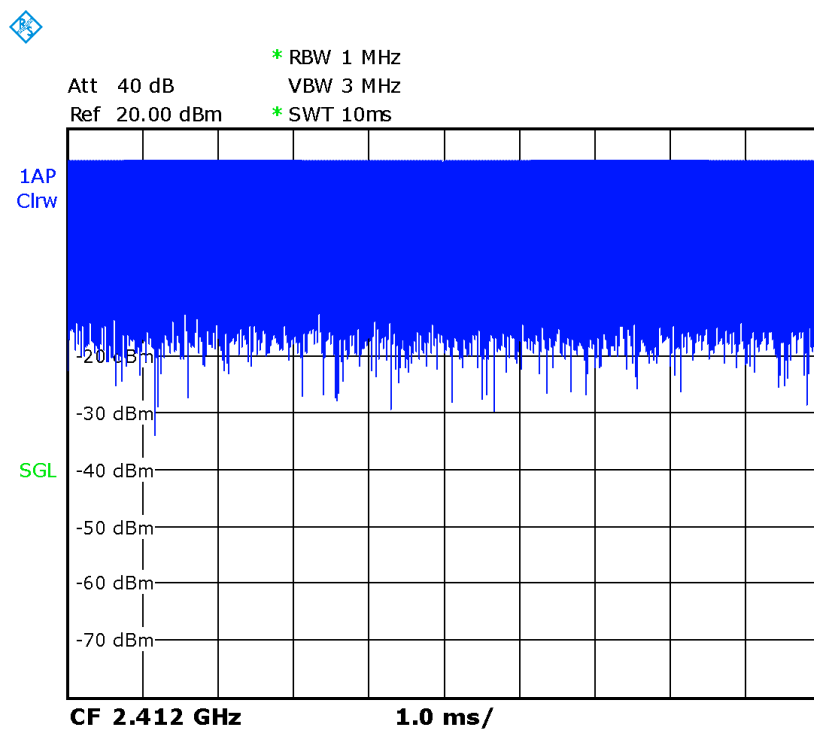
Note2: For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel until the reported SAR is ≤ 1.2 W/kg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

Frequency		Test Position	Actual duty factor	maximum duty factor	Reported SAR (1g)(W/kg)	Scaled reported SAR (1g)(W/kg)
Ch.	MHz					
1	2412	Rear	100%	100%	<b>0.67</b>	<b>0.67</b>

SAR is not required for OFDM because the 802.11b adjusted SAR  $\leq 1.2$  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	
U-NII-2A	X		X	X	X	X	X	
U-NII-2C	X		X	X	X	X	X	
U-NII-3	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 –  
Body (Transmit alone)**

802.11 mode	a	g	n		ac			
Ch. BW(MHz)	20	20	20	40	20	40	80	160
U-NII-1	63		63	62	63	56	45	
U-NII-2A	63		63	62	63	56	45	
U-NII-2C	76		71	62	71	56	50	
U-NII-3	63		63	62	63	50	40	
§ 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 (Transmit with WWAN)**

802.11 mode	a	g	n		ac			
Ch. BW(MHz)	20	20	20	40	20	40	80	160
U-NII-1	22		22	19	22	19	19	
U-NII-2A	22		22	19	22	19	19	
U-NII-2C	20		20	18	20	18	18	
U-NII-3	20		20	18	20	18	18	
§ 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 specified of WLAN antenna –  
Head (Transmit alone)**

802.11 mode	a	g	n		ac			
Ch. BW(MHz)	20	20	20	40	20	40	80	160
U-NII-1	40		40	39	40	39	31	
U-NII-2A	40		40	39	40	39	31	
U-NII-2C	40		40	39	40	39	31	
U-NII-3	32		32	31	32	31	31	
§ 15.247 (5.8 GHz)								
<ul style="list-style-type: none"> <li>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.</li> <li>The blue highlighted cells represent highest output configurations in each standalone or aggregated frequency band, with tune-up tolerance included.</li> </ul>								

**Table 14.4-5: Maximum output power specified of WLAN antenna–  
Head (Transmit with WWAN)**

802.11 mode	a	g	n		ac			
Ch. BW(MHz)	20	20	20	40	20	40	80	160
U-NII-1	13.2		13.2	12.6	13.2	12.6	12.6	
U-NII-2A	13.2		13.2	12.6	13.2	12.6	12.6	
U-NII-2C	18		18	12.6	16	12.6	12.6	
U-NII-3	16		16	12.6	13	12.6	12.6	
§ 15.247 (5.8 GHz)								
<ul style="list-style-type: none"> <li>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.</li> <li>The blue highlighted cells represent highest output configurations in each standalone or aggregated frequency band, with tune-up tolerance included.</li> </ul>								

**Table 14.4-6: 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 (Transmit alone)**

802.11 Mode	a	n		ac		
BW(MHz)	20	20	40	20	40	80
U-NII-1	36/40/44/48 <b>61.8/62.8/</b> <b>62.5/61.8</b>	36/40/44/48 Lower power	38/46 Lower power	36/40/44/48 Lower power	38/46 Lower power	42 Lower power
U-NII-2A	52/56/60/64 <b>62.4/55.7/</b> <b>55.1/64.6</b>	52/56/60/64 Lower power	54/62 Lower power	52/56/60/64 Lower power	54/62 Lower power	58 Lower power
U-NII-2C	100/104/108/112/116/120/124/128/ 132/140/144 <b>53.2/58.7/62.7/60/</b> <b>54.5/52.7/50.9/51.1/</b> <b>58.7/66.1/75.3/75</b>	100/116/124/ 132/140/144 Lower power	102/110/118/ 126/134/142 Lower power	100/116/124/ 132/140/144 Lower power	102/110/126/ /134/142 Lower power	106/122/ 138 Lower power
U-NII-3	149/153/157/ 161/165 <b>62.7/60/50/50.2/52.1</b>	149/157/165 Lower power	151/159 Lower power	149/157/165 Lower power	151/159 Lower power	155 Lower power
<ul style="list-style-type: none"> <li>● The <b>bold numbers</b> is the maximum output measured power (mW).</li> <li>● Channels with measured maximum power within 0.25dB are considered to have the same measured output. Channels selected for initial test configuration are <b>highlighted in yellow</b>.</li> </ul>						

**Table 14.4-7: 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 (Transmit with WWAN)**

802.11 Mode	a	n		ac		
BW(MHz)	20	20	40	20	40	80
U-NII-1	36/40/44/48 <b>18.1/19.8/</b> <b>18.8/17.5</b>	36/40/44/48 Lower power	38/46 Lower power	36/40/44/48 Lower power	38/46 Lower power	42 Lower power
U-NII-2A	<b>52/56/60/64</b> <b>16.6/15.6/</b> <b>15.7/15.6</b>	52/56/60/64 Lower power	54/62 Lower power	52/56/60/64 Lower power	54/62 Lower power	58 Lower power
U-NII-2C	100/104/108/112/116/ 120/124/128/ 132/ <b>140</b> /144 <b>13.5/15.5/16.2/16.4/</b> <b>14.6/13.3/12.9/13/15.</b> <b>5/17.5/19.8/19.1</b>	100/116/124/ 132/140/144 Lower power	102/110/118/ 126/134/142 Lower power	100/116/124/ 132/140/144 Lower power	102/110/126 /134/142 Lower power	106/122/ 138 Lower power
U-NII-3	<b>149/153/157/</b> 161/165 <b>16.4/14.9/13.7/</b> <b>12.8/13.7</b>	149/157/165 Lower power	151/159 Lower power	149/157/165 Lower power	151/159 Lower power	155 Lower power
<ul style="list-style-type: none"> <li>● The <b>bold numbers</b> is the maximum output measured power (mW).</li> <li>● Channels with measured maximum power within 0.25dB are considered to have the same measured output. Channels selected for initial test configuration are <b>highlighted in yellow</b>.</li> </ul>						



**Table 14.4-8: 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 (Transmit alone)**

802.11 Mode	a	n		ac		
BW(MHz)	20	20	40	20	40	80
U-NII-1	36/40/44/48 <b>38.7/38.1/</b> <b>37.2/35.8</b>	36/40/44/48 Lower power	38/46 Lower power	36/40/44/48 Lower power	38/46 Lower power	42 Lower power
U-NII-2A	52/56/60/64 <b>34.1/33.8/</b> <b>32/35.1</b>	52/56/60/64 Lower power	54/62 Lower power	52/56/60/64 Lower power	54/62 Lower power	58 Lower power
U-NII-2C	100/104/108/112/1 16/120/124/128/ 132/140/144 <b>32.2/32.4/32.2/</b> <b>29.9/25.7/24.8/23.</b> <b>2/24/31/34.3/36.7/</b> <b>37.7</b>	100/116/124/ 132/140/144 Lower power	102/110/118/ 126/134/142 Lower power	100/116/124/ 132/140/144 Lower power	102/110/126 /134/142 Lower power	106/122/ 138 Lower power
U-NII-3	<b>149/153/157/</b> 161/165 <b>29.9/26.4/25.8/</b> <b>23.7/28.6</b>	149/157/165 Lower power	151/159 Lower power	149/157/165 Lower power	151/159 Lower power	155 Lower power

- 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 14.4-9: 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 (Transmit with WWAN)**

802.11 Mode	a	n		ac		
BW(MHz)	20	20	40	20	40	80
U-NII-1	36/40/44/48 <b>12.4/12.9/</b> <b>12.6/11.7</b>	36/40/44/48 Lower power	38/46 Lower power	36/40/44/48 Lower power	38/46 Lower power	42 Lower power
U-NII-2A	<b>52/56/60/64</b> <b>13.2/12.7/</b> <b>12.8/13.1</b>	52/56/60/64 Lower power	54/62 Lower power	52/56/60/64 Lower power	54/62 Lower power	58 Lower power
U-NII-2C	100/104/108/112/1 16/120/124/128/ 132/140/ <b>144</b> <b>11.3/12.4/13.1/</b> <b>13.4/12.4/11.4/11.</b> <b>3/11.4/13/14.5/16/</b> <b>17.3</b>	100/116/124/ 132/140/144 Lower power	102/110/118/ 126/134/142 Lower power	100/116/124/ 132/140/144 Lower power	102/110/126 /134/142 Lower power	106/122/ 138 Lower power
U-NII-3	<b>149/153/157/</b> 161/165 <b>13.6/12.2/11.1/</b> <b>10.7/11.1</b>	149/157/165 Lower power	151/159 Lower power	149/157/165 Lower power	151/159 Lower power	155 Lower power
<ul style="list-style-type: none"> <li>● The <b>bold numbers</b> is the maximum output measured power (mW).</li> <li>● Channels with measured maximum power within 0.25dB are considered to have the same measured output. Channels selected for initial test configuration are <b>highlighted in yellow</b>.</li> </ul>						

**Table 14.4-10: Reported SAR of initial test configuration for Head**

802.11 mode	a	n		ac		
	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 0.98/0.88	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 0.80/0.78	100/104/108/112/ 116/120/124/128/ 132/136/140/144	102/110/ 118/126/ 134/142	100/104/108/112 /116/120/124/12 8/132/136/140/1 44	102/110 /118/12 6/134/1 42	106/12 2
U-NII-3	149/153/157/161/165 0.76	149/153/157/161 /165	151/159	149/153/157/161 /165	151/159	155

Highest measured output power channel tested initially are in yellow highlight.

The green highlighted channels are next highest measured output channel in the initial test configuration.

**Table 14.4-11: Reported SAR of initial test configuration for Body**

802.11 mode	a	n		ac		
	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 1.16/1.19	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 1.25/1.18	100/104/108/112/ 116/120/124/128/ 132/136/140/144	102/110/ 118/126/ 134/142	100/104/108/112 /116/120/124/12 8/132/136/140/1 44	102/110 /118/12 6/134/1 42	106/12 2
U-NII-3	149/153/157/161/165 1.17/1.06	149/153/157/161 /165	151/159	149/153/157/161 /165	151/159	155

Highest measured output power channel tested initially are in yellow highlight.

**Table 14.4-12: 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	Note1/Fig.47	15.45	16	0.282	<b>0.32</b>	0.866	<b>0.98</b>	0.16
52	5260	Left	Cheek	Note1	15.33	16	0.256	<b>0.30</b>	0.75	<b>0.88</b>	0.01
64	5320	Left	Tilt	Note1	15.45	16	0.215	<b>0.24</b>	0.679	<b>0.77</b>	-0.14
64	5320	Right	Cheek	Note1	15.45	16	0.244	<b>0.28</b>	0.69	<b>0.78</b>	-0.14
64	5320	Right	Tilt	Note1	15.45	16	0.288	<b>0.33</b>	0.827	<b>0.94</b>	-0.03
52	5260	Right	Tilt	Note1	15.33	16	0.278	<b>0.32</b>	0.801	<b>0.93</b>	-0.14
144	5720	Left	Cheek	Note1	15.76	16	0.209	<b>0.22</b>	0.649	<b>0.69</b>	0.15
144	5720	Left	Tilt	Note1	15.76	16	0.194	<b>0.21</b>	0.567	<b>0.60</b>	0.02
144	5720	Right	Cheek	Note1	15.76	16	0.19	<b>0.20</b>	0.571	<b>0.60</b>	-0.11
144	5720	Right	Tilt	Note1	15.76	16	0.252	<b>0.27</b>	0.76	<b>0.80</b>	-0.03
140	5700	Right	Tilt	Note1	15.65	16	0.235	<b>0.25</b>	0.722	<b>0.78</b>	-0.07
149	5745	Left	Cheek	Note1	14.75	15	0.186	<b>0.20</b>	0.541	<b>0.57</b>	0.14
149	5745	Left	Tilt	Note1	14.75	15	0.154	<b>0.16</b>	0.417	<b>0.44</b>	0.15
149	5745	Right	Cheek	Note1	14.75	15	0.186	<b>0.20</b>	0.51	<b>0.54</b>	0.10
149	5745	Right	Tilt	Note1	14.75	15	0.236	<b>0.25</b>	0.716	<b>0.76</b>	0.17
52	5260	Left	Cheek	Note2	11.19	11.2	0.081	<b>0.08</b>	0.22	<b>0.22</b>	-0.17
52	5260	Left	Tilt	Note2	11.19	11.2	0.123	<b>0.12</b>	0.369	<b>0.37</b>	0.07
52	5260	Right	Cheek	Note2	11.19	11.2	0.066	<b>0.07</b>	0.177	<b>0.18</b>	-0.06
52	5260	Right	Tilt	Note2	11.19	11.2	0.088	<b>0.09</b>	0.249	<b>0.25</b>	-0.11
144	5720	Left	Cheek	Note2	12.37	12.5	0.043	<b>0.04</b>	0.116	<b>0.12</b>	-0.15
144	5720	Left	Tilt	Note2	12.37	12.5	0.07	<b>0.07</b>	0.18	<b>0.19</b>	-0.11
144	5720	Right	Cheek	Note2	12.37	12.5	0.05	<b>0.05</b>	0.124	<b>0.13</b>	-0.02
144	5720	Right	Tilt	Note2	12.37	12.5	0.067	<b>0.07</b>	0.182	<b>0.19</b>	-0.13
149	5745	Left	Cheek	Note2	11.35	12	0.036	<b>0.04</b>	0.094	<b>0.11</b>	-0.10
149	5745	Left	Tilt	Note2	11.35	12	0.058	<b>0.07</b>	0.159	<b>0.18</b>	-0.14
149	5745	Right	Cheek	Note2	11.35	12	0.044	<b>0.05</b>	0.117	<b>0.14</b>	0.08
149	5745	Right	Tilt	Note2	11.35	12	0.06	<b>0.07</b>	0.165	<b>0.19</b>	-0.12

Note1: The results are for Wifi antenna transmit standalone.

Note2: The results are for Wifi antenna transmit with WWAN.

**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									
64	5320	Front	Note1	18.1	18.3	0.122	<b>0.13</b>	0.316	<b>0.33</b>	-0.11
64	5320	Rear	Note1	18.1	18.3	0.265	<b>0.28</b>	0.703	<b>0.74</b>	0.05
64	5320	Right	Note1	18.1	18.3	0.195	<b>0.20</b>	0.461	<b>0.48</b>	-0.06
64	5320	Top	Note1	18.1	18.3	0.419	<b>0.44</b>	1.11	<b>1.16</b>	0.08
52	5260	Top	Note1	17.95	18.3	0.41	<b>0.44</b>	1.1	<b>1.19</b>	-0.05
144	5720	Front	Note1	18.75	18.8	0.122	<b>0.12</b>	0.332	<b>0.34</b>	0.16
144	5720	Rear	Note1	18.75	18.8	0.27	<b>0.27</b>	0.699	<b>0.71</b>	0.15
144	5720	Right	Note1	18.75	18.8	0.141	<b>0.14</b>	0.322	<b>0.33</b>	0.12
144	5720	Top	Note1/Fig.48	18.75	18.8	0.444	<b>0.45</b>	1.24	<b>1.25</b>	-0.19
140	5700	Top	Note1	18.57	18.8	0.408	<b>0.43</b>	1.12	<b>1.18</b>	-0.15
149	5745	Front	Note1	17.97	18	0.115	<b>0.12</b>	0.331	<b>0.33</b>	-0.15
149	5745	Rear	Note1	17.97	18	0.204	<b>0.21</b>	0.55	<b>0.55</b>	0.06
149	5745	Right	Note1	17.97	18	0.122	<b>0.12</b>	0.279	<b>0.28</b>	0.03
149	5745	Top	Note1	17.97	18	0.416	<b>0.42</b>	1.16	<b>1.17</b>	0.02
153	5765	Top	Note1	17.78	18	0.37	<b>0.39</b>	1.01	<b>1.06</b>	-0.07
52	5260	Front	Note2	10.54	11.5	0.008	<b>0.01</b>	0.023	<b>0.03</b>	-0.12
52	5260	Rear	Note2	10.54	11.5	0.040	<b>0.05</b>	0.120	<b>0.15</b>	0.12
52	5260	Left	Note2	10.54	11.5	0.029	<b>0.04</b>	0.083	<b>0.10</b>	0.11
52	5260	Right	Note2	10.54	11.5	<0.01	<b>&lt;0.01</b>	<0.01	<b>&lt;0.01</b>	/
52	5260	Top	Note2	10.54	11.5	0.014	<b>0.02</b>	0.037	<b>0.05</b>	-0.17
144	5720	Front	Note2	11.15	11.5	0.018	<b>0.02</b>	0.058	<b>0.06</b>	-0.09
144	5720	Rear	Note2	11.15	11.5	0.069	<b>0.07</b>	0.215	<b>0.23</b>	0.09
144	5720	Left	Note2	11.15	11.5	0.044	<b>0.05</b>	0.125	<b>0.14</b>	0.18
144	5720	Right	Note2	11.15	11.5	<0.01	<b>&lt;0.01</b>	<0.01	<b>&lt;0.01</b>	/
144	5720	Top	Note2	11.15	11.5	0.038	<b>0.04</b>	0.091	<b>0.10</b>	-0.15
165	5825	Front	Note2	10.50	11.5	0.014	<b>0.02</b>	0.041	<b>0.05</b>	0.12
165	5825	Rear	Note2	10.50	11.5	0.045	<b>0.06</b>	0.135	<b>0.17</b>	0.09
165	5825	Left	Note2	10.50	11.5	0.029	<b>0.04</b>	0.074	<b>0.09</b>	-0.03
165	5825	Right	Note2	10.50	11.5	<0.01	<b>&lt;0.01</b>	<0.01	<b>&lt;0.01</b>	0.00
165	5825	Top	Note2	10.50	11.5	0.025	<b>0.03</b>	0.062	<b>0.08</b>	-0.13

Note1: The results are for Wifi antenna transmit standalone.

Note2: The results are for Wifi antenna transmit with WWAN.

Note3: The distance between the EUT and the phantom bottom is 10mm.

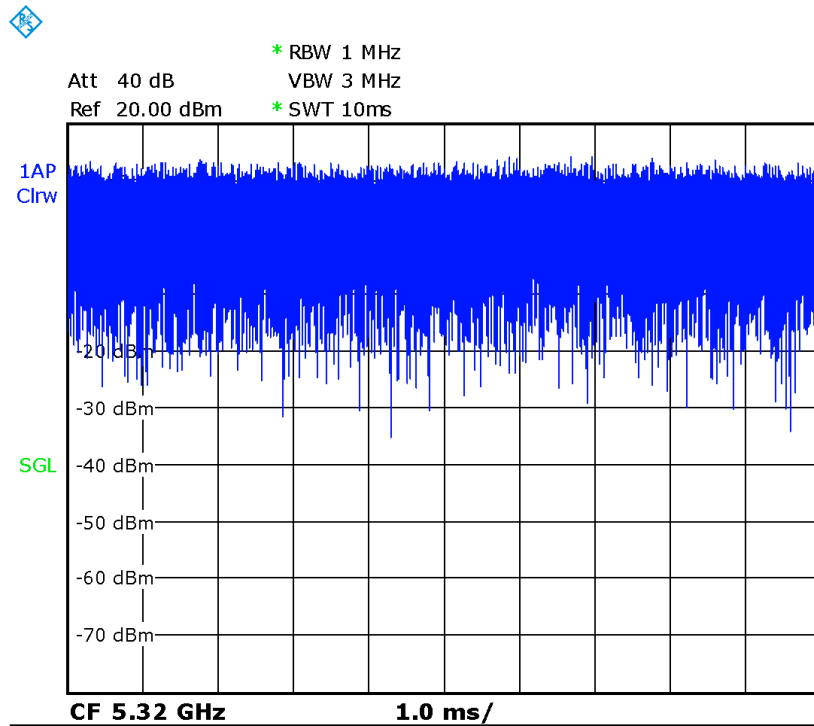
According to the KDB248227 D01, The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit. The scaled reported SAR is presented as below.

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

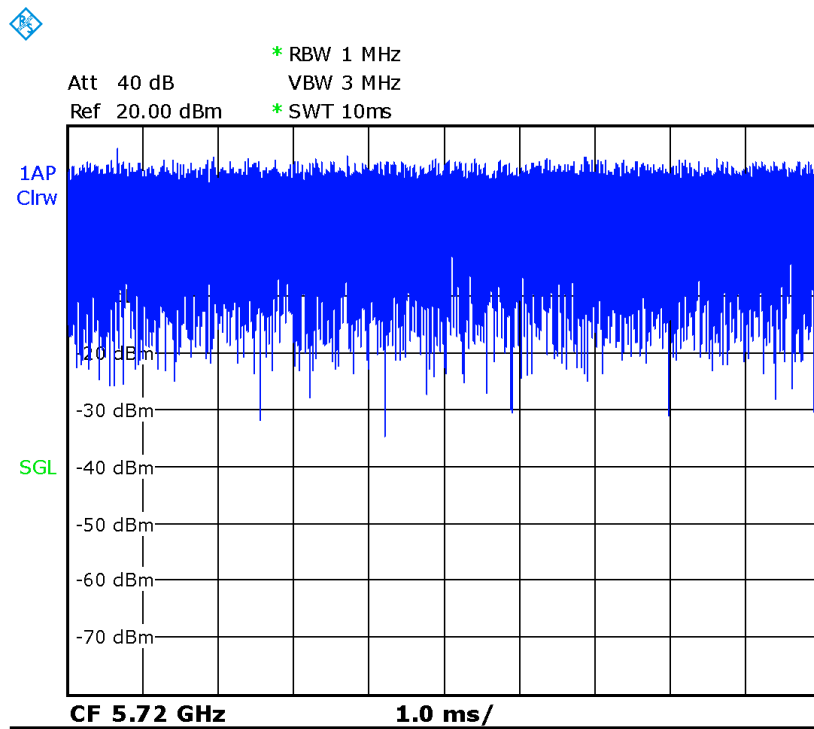
Frequency		Side	Test Position	Actual duty factor	maximum duty factor	Reported SAR (1g) (W/kg)	Scaled reported SAR (1g) (W/kg)
Ch.	MHz						
64	5320	Left	Cheek	100%	100%	<b>0.98</b>	<b>0.98</b>

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

Frequency		Test Position	Distance (mm)	Actual duty factor	maximum duty factor	Reported SAR (1g) (W/kg)	Scaled reported SAR (1g) (W/kg)
Ch.	MHz						
144	5720	Top	10	100%	100%	<b>1.25</b>	<b>1.25</b>



**Picture 14.4-1 The plot of duty factor for CH64**



Picture 14.4-2 The plot of duty factor for CH144

### 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	8.76	9.5	<0.01	<0.01	<0.01	<0.01	/
39	2441	Left	Tilt	8.76	9.5	<0.01	<0.01	<0.01	<0.01	/
39	2441	Right	Cheek	8.76	9.5	<0.01	<0.01	<0.01	<0.01	/
39	2441	Right	Tilt	8.76	9.5	<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	8.76	9.5	<0.01	<0.01	<0.01	<0.01	/
39	2441	Rear	8.76	9.5	<0.01	<0.01	<0.01	<0.01	/
39	2441	Right	8.76	9.5	<0.01	<0.01	<0.01	<0.01	/
39	2441	Top	8.76	9.5	<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  $\leq 25$  mm from that surface or edge, in direct contact with a flat phantom, for 10-g extremity SAR according to the body-equivalent tissue dielectric parameters in KDB Publication 865664 D01 to address interactive hand use exposure conditions. When hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR  $> 1.2$  W/kg

**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									
WIFI5G	144	5720	Top	Fig.49	18.75	18.8	1.73	<b>1.75</b>	7.46	<b>7.55</b>	0.09

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

**Table 15.1: SAR Measurement Variability for Head GSM850 (1g)**

Frequency		Test Position	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
Ch.	MHz					
190	836.6	Left Cheek	0.904	0.879	1.03	/
190	836.6	Left Tilt	0.974	0.966	1.01	/
190	836.6	Right Cheek	1.13	1.08	1.05	/
190	836.6	Right Tilt	1.17	1.11	1.05	/

**Table 15.2: SAR Measurement Variability for Head WCDMA1900 (1g)**

Frequency		Test Position	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
Ch.	MHz					
9262	1852.4	Right Cheek	1.09	1.06	1.03	/

**Table 15.3: SAR Measurement Variability for Body WCDMA1900 (1g)**

Frequency		Test Position	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
Ch.	MHz					
9262	1852.4	Left 10mm	1.02	0.989	1.03	/

**Table 15.4: SAR Measurement Variability for Head WCDMA1700 (1g)**

Frequency		Test Position	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
Ch.	MHz					
1412	1732.4	Right Cheek	0.844	0.835	1.01	/

**Table 15.5: SAR Measurement Variability for Head WCDMA850 (1g)**

Frequency		Test Position	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
Ch.	MHz					
4233	846.6	Left Cheek	0.804	0.788	1.02	/
4233	846.6	Right Tilt	0.945	0.913	1.04	/

**Table 15.6: SAR Measurement Variability for Head LTE Band2 (1g)**

Frequency		Test Position	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
Ch.	MHz					
18900	1880	Right Cheek	1.19	1.16	1.03	/

**Table 15.7: SAR Measurement Variability for Body LTE Band2 (1g)**

Frequency		Test Position	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
Ch.	MHz					
18900	1880	Left 10mm	1.04	1.01	1.03	/

**Table 15.8: SAR Measurement Variability for Head LTE Band7 (1g)**

Frequency		Test Position	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
Ch.	MHz					
20850	2510	Left Cheek	0.874	0.866	1.01	/

**Table 15.9: SAR Measurement Variability for Head LTE Band25 (1g)**

Frequency		Test Position	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
Ch.	MHz					
26140	1860	Right Cheek	0.986	0.975	1.01	/

**Table 15.10: SAR Measurement Variability for Body LTE Band25 (1g)**

Frequency		Test Position	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
Ch.	MHz					
26140	1860	Left 10mm	0.968	0.952	1.02	/

**Table 15.11: SAR Measurement Variability for Head LTE Band41 PC2 (1g)**

Frequency		Test Position	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
Ch.	MHz					
40185	2549.5	Left Cheek	1.01	0.976	1.03	/

**Table 15.12: SAR Measurement Variability for Body LTE Band41 PC2 (1g)**

Frequency		Test Position	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
Ch.	MHz					
40185	2549.5	Right 10mm	1.15	1.12	1.03	/

**Table 15.13: SAR Measurement Variability for Head n25 (1g)**

Frequency		Test Position	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
Ch.	MHz					
376500	1882.5	Right Cheek	1.14	1.11	1.03	/

**Table 15.14: SAR Measurement Variability for Body n25 (1g)**

Frequency		Test Position	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
Ch.	MHz					
376500	1882.5	Rear 10mm	1.02	0.985	1.04	/
376500	1882.5	Left 10mm	1.12	1.09	1.03	/

**Table 15.15: SAR Measurement Variability for Head n66 (1g)**

Frequency		Test Position	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
Ch.	MHz					
349000	1745	Right Cheek	1.03	0.997	1.03	/

**Table 15.16: SAR Measurement Variability for Body n66 (1g)**

Frequency		Test Position	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
Ch.	MHz					
349000	1745	Left 10mm	0.94	0.923	1.02	/

**Table 15.17: SAR Measurement Variability for Head n71 (1g)**

Frequency		Test Position	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
Ch.	MHz					
136100	680.5	Right Tilt	0.902	0.891	1.01	/

**Table 15.18: SAR Measurement Variability for Head n41 (1g)**

Frequency		Test Position	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
Ch.	MHz					
535998	2679.99	Left Cheek	0.845	0.813	1.04	/
535998	2679.99	Right Cheek	1.01	0.987	1.02	/

**Table 15.19: SAR Measurement Variability for Body n41 (1g)**

Frequency		Test Position	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
Ch.	MHz					
509902	2549.51	Right 10mm	1.07	1.04	1.03	/

**Table 15.20: SAR Measurement Variability for Head WIFI2.4G (1g)**

Frequency		Test Position	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
Ch.	MHz					
1	2412	Left Cheek	0.849	0.83	1.02	/

**Table 15.21: SAR Measurement Variability for Head WiFi5G (1g)**

Frequency		Test Position	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
Ch.	MHz					
64	5320	Left Cheek	0.866	0.852	1.02	/
64	5320	Right Tilt	0.827	0.808	1.02	/

**Table 15.22: SAR Measurement Variability for Body WiFi5G (1g)**

Frequency		Test Position	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
Ch.	MHz					
144	5720	Top 10mm	1.24	1.2	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
<b>Measurement system</b>										
1	Probe calibration	B	6.0	N	1	1	1	6.0	6.0	$\infty$
2	Isotropy	B	4.7	R	$\sqrt{3}$	0.7	0.7	1.9	1.9	$\infty$
3	Boundary effect	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	$\infty$
4	Linearity	B	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	$\infty$
5	Detection limit	B	1.0	N	1	1	1	0.6	0.6	$\infty$
6	Readout electronics	B	0.3	R	$\sqrt{3}$	1	1	0.3	0.3	$\infty$
7	Response time	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	$\infty$
8	Integration time	B	2.6	R	$\sqrt{3}$	1	1	1.5	1.5	$\infty$
9	RF ambient conditions-noise	B	0	R	$\sqrt{3}$	1	1	0	0	$\infty$
10	RF ambient conditions-reflection	B	0	R	$\sqrt{3}$	1	1	0	0	$\infty$
11	Probe positioned mech. restrictions	B	0.4	R	$\sqrt{3}$	1	1	0.2	0.2	$\infty$
12	Probe positioning with respect to phantom shell	B	2.9	R	$\sqrt{3}$	1	1	1.7	1.7	$\infty$
13	Post-processing	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	$\infty$
<b>Test sample related</b>										
14	Test sample positioning	A	3.3	N	1	1	1	3.3	3.3	71
15	Device holder uncertainty	A	3.4	N	1	1	1	3.4	3.4	5
16	Drift of output power	B	5.0	R	$\sqrt{3}$	1	1	2.9	2.9	$\infty$
<b>Phantom and set-up</b>										
17	Phantom uncertainty	B	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	$\infty$
18	Liquid conductivity (target)	B	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	$\infty$
19	Liquid conductivity (meas.)	A	2.06	N	1	0.64	0.43	1.32	0.89	43
20	Liquid permittivity (target)	B	5.0	R	$\sqrt{3}$	0.6	0.49	1.7	1.4	$\infty$
21	Liquid permittivity (meas.)	A	1.6	N	1	0.6	0.49	1.0	0.8	521

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

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

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



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

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

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

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

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

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

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

## 17 MAIN TEST INSTRUMENTS

**Table 17.1: List of Main Instruments**

No.	Name	Type	Serial Number	Calibration Date	Valid Period
01	Network analyzer	E5071C	MY46110673	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	7548	June 25, 2021	One year
08	DAE	SPEAG DAE4	1331	September 1, 2021	One year
09	Dipole Validation Kit	SPEAG D750V3	1017	July 12,,2021	One year
10	Dipole Validation Kit	SPEAG D835V2	4d069	July 21,,2021	One year
11	Dipole Validation Kit	SPEAG D1750V2	1003	July 12,,2021	One year
12	Dipole Validation Kit	SPEAG D1900V2	5d101	July 15,2021	One year
13	Dipole Validation Kit	SPEAG D2450V2	853	July 26,2021	One year
14	Dipole Validation Kit	SPEAG D2600V2	1012	July 26,2021	One year
15	Dipole Validation Kit	SPEAG D3500V2	1016	June 21,2021	One year
16	Dipole Validation Kit	SPEAG D3700V2	1004	June 21,2021	One year
17	Dipole Validation Kit	SPEAG D5GHzV2	1262	January 18,2021	One year

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

## ANNEX A Graph Results

### GSM850\_CH190 Right Tilt

Date: 11/21/2021

Electronics: DAE4 Sn1331

Medium: head 835 MHz

Medium parameters used:  $f = 836.6$  MHz;  $\sigma = 0.858$  S/m;  $\epsilon_r = 44.176$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: GSM850 836.6 MHz Duty Cycle: 1:4

Probe: EX3DV4 – SN7548 ConvF(10.36,10.36,10.36)

**Area Scan (71x141x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 2.73 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 41.24 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 3.87 W/kg

**SAR(1 g) = 1.17 W/kg; SAR(10 g) = 0.544 W/kg**

Maximum value of SAR (measured) = 2.55 W/kg

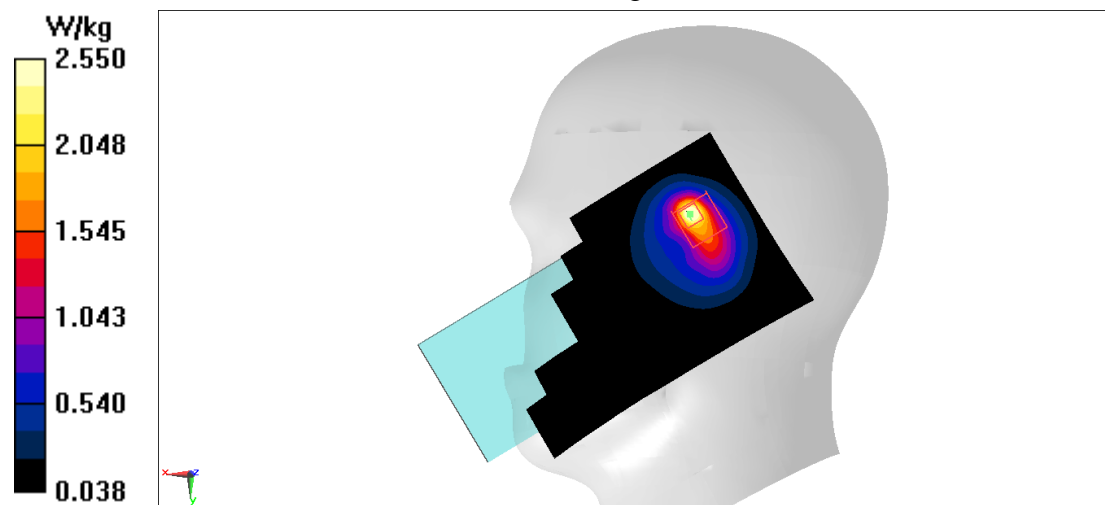


Fig A.1

**GSM850\_CH190 Rear 10mm**

Date: 11/21/2021

Electronics: DAE4 Sn1331

Medium: head 835 MHz

Medium parameters used:  $f = 836.6$  MHz;  $\sigma = 0.858$  S/m;  $\epsilon_r = 44.176$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: GSM850 836.6 MHz Duty Cycle: 1:4

Probe: EX3DV4 – SN7548 ConvF(10.36,10.36,10.36)

**Area Scan (81x141x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.789 W/kg

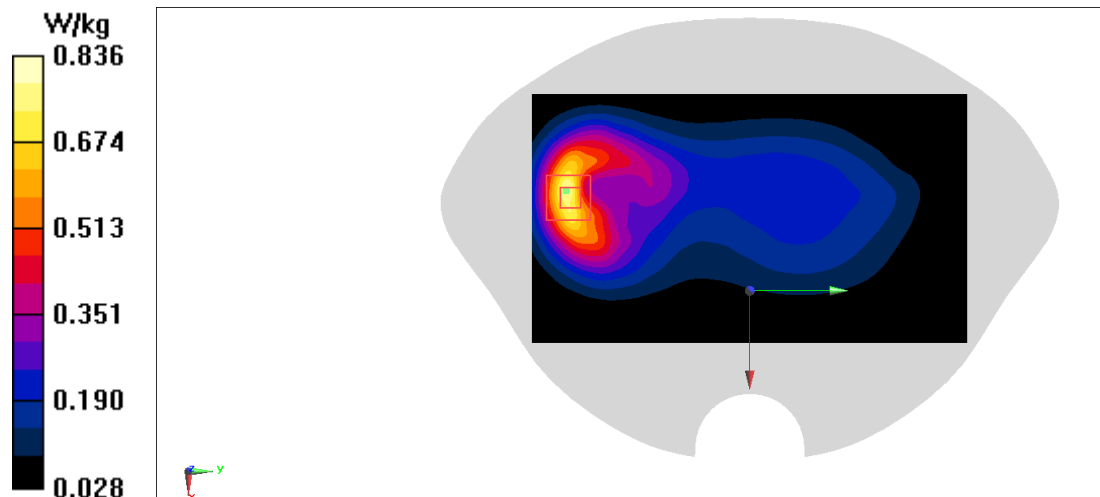
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.65 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 1.05 W/kg

**SAR(1 g) = 0.568 W/kg; SAR(10 g) = 0.323 W/kg**

Maximum value of SAR (measured) = 0.836 W/kg

**Fig A.2**

**PCS1900\_CH512 Right Cheek**

Date: 11/25/2021

Electronics: DAE4 Sn1331

Medium: head 1900 MHz

Medium parameters used:  $f = 1850.2$  MHz;  $\sigma = 1.444$  S/m;  $\epsilon_r = 41.71$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: PCS1900 1850.2 MHz Duty Cycle: 1:8.3

Probe: EX3DV4 – SN7548 ConvF(7.88,7.88,7.88)

**Area Scan (81x141x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.12 W/kg

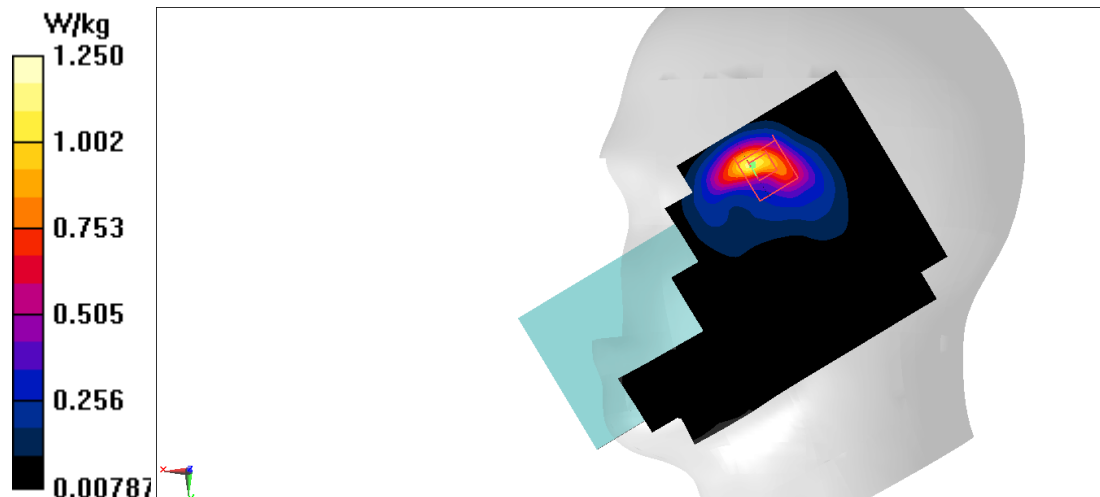
**Zoom Scan (5x6x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.413 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.56 W/kg

**SAR(1 g) = 0.778 W/kg; SAR(10 g) = 0.374 W/kg**

Maximum value of SAR (measured) = 1.25 W/kg

**Fig A.3**

**PCS1900\_CH512 Left 10mm**

Date: 11/25/2021

Electronics: DAE4 Sn1331

Medium: head 1900 MHz

Medium parameters used:  $f = 1850.2$  MHz;  $\sigma = 1.444$  S/m;  $\epsilon_r = 41.71$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: PCS1900 1850.2 MHz Duty Cycle: 1:8.3

Probe: EX3DV4 – SN7548 ConvF(7.88,7.88,7.88)

**Area Scan (41x141x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.937 W/kg

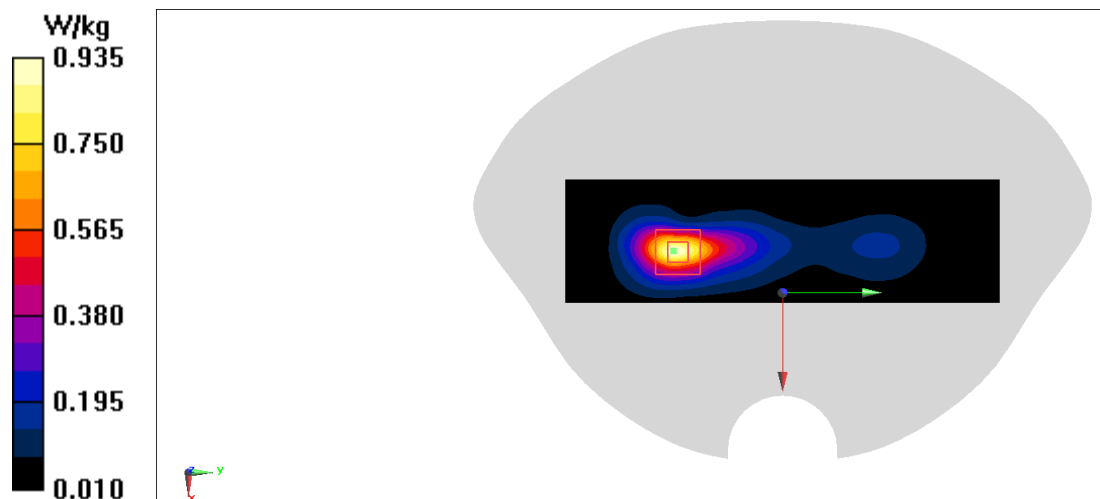
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.69 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 1.15 W/kg

**SAR(1 g) = 0.611 W/kg; SAR(10 g) = 0.304 W/kg**

Maximum value of SAR (measured) = 0.935 W/kg

**Fig A.4**



**WCDMA1900-BII\_CH9262 Right Cheek**

Date: 11/25/2021

Electronics: DAE4 Sn1331

Medium: head 1900 MHz

Medium parameters used:  $f = 1852.4$  MHz;  $\sigma = 1.445$  S/m;  $\epsilon_r = 41.701$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

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

Probe: EX3DV4 – SN7548 ConvF(7.88,7.88,7.88)

**Area Scan (81x141x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.65 W/kg

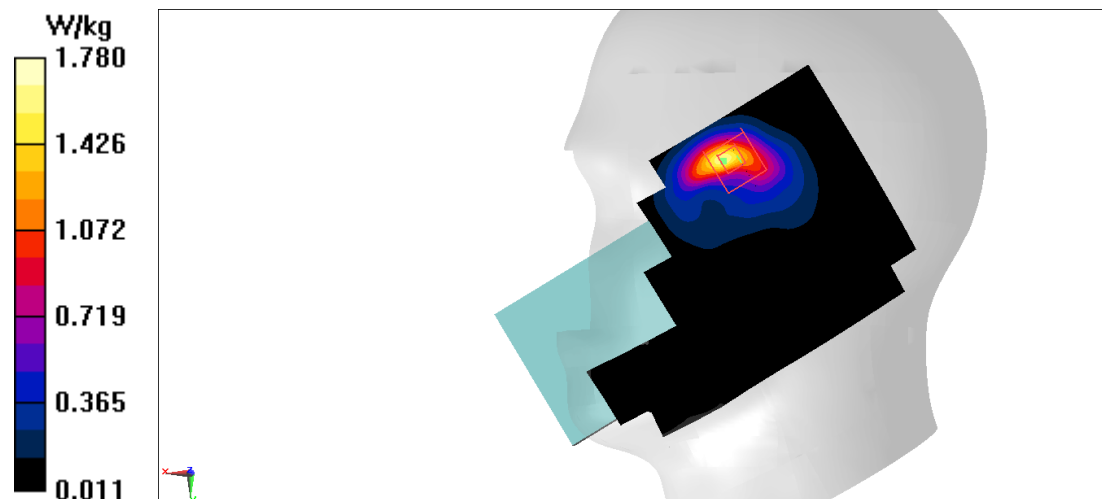
**Zoom Scan (5x6x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.852 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 2.22 W/kg

**SAR(1 g) = 1.09 W/kg; SAR(10 g) = 0.517 W/kg**

Maximum value of SAR (measured) = 1.78 W/kg

**Fig A.5**

**WCDMA1900-BII\_CH9262 Left 10mm**

Date: 11/25/2021

Electronics: DAE4 Sn1331

Medium: head 1900 MHz

Medium parameters used:  $f = 1852.4$  MHz;  $\sigma = 1.445$  S/m;  $\epsilon_r = 41.701$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

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

Probe: EX3DV4 – SN7548 ConvF(7.88,7.88,7.88)

**Area Scan (41x141x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.56 W/kg

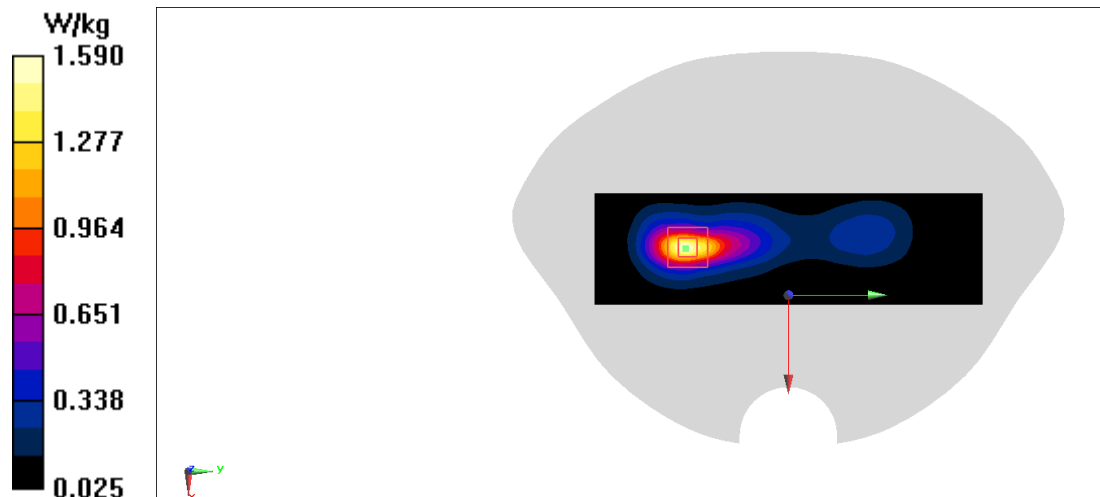
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.07 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 1.88 W/kg

**SAR(1 g) = 1.02 W/kg; SAR(10 g) = 0.521 W/kg**

Maximum value of SAR (measured) = 1.59 W/kg



**Fig A.6**

**WCDMA1700-BIV\_CH1412 Right Cheek**

Date: 11/23/2021

Electronics: DAE4 Sn1331

Medium: head 1750 MHz

Medium parameters used:  $f = 1732.4$  MHz;  $\sigma = 1.364$  S/m;  $\epsilon_r = 42.056$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: WCDMA1700-BIV 1732.4 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7548 ConvF(8.14,8.14,8.14)

**Area Scan (81x141x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.28 W/kg

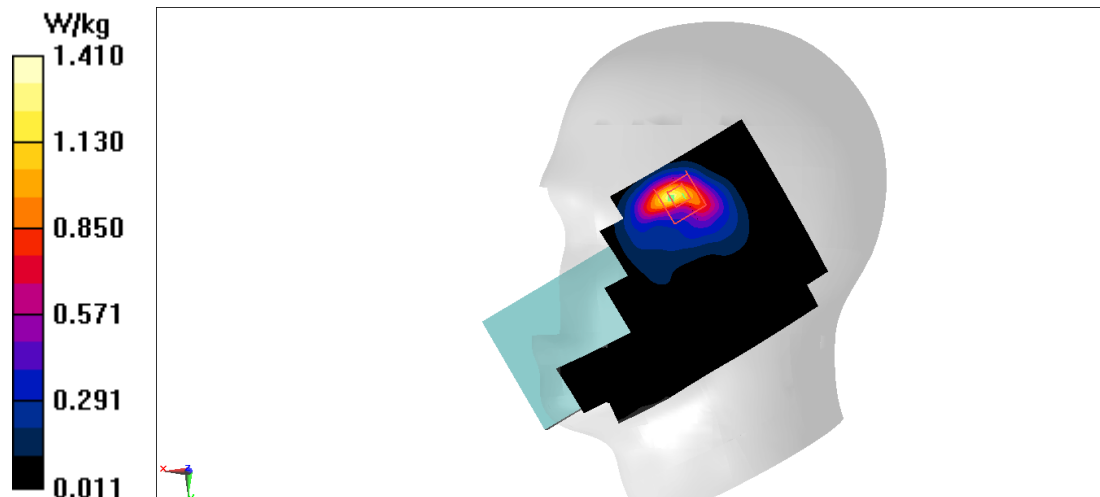
**Zoom Scan (5x6x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 9.349 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 1.74 W/kg

**SAR(1 g) = 0.844 W/kg; SAR(10 g) = 0.408 W/kg**

Maximum value of SAR (measured) = 1.41 W/kg



**Fig A.7**

**WCDMA1700-BIV\_CH15132 Left 10mm**

Date: 11/23/2021

Electronics: DAE4 Sn1331

Medium: head 1750 MHz

Medium parameters used:  $f = 1752.6$  MHz;  $\sigma = 1.379$  S/m;  $\epsilon_r = 41.983$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: WCDMA1700-BIV 1752.6 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7548 ConvF(8.14,8.14,8.14)

**Area Scan (41x141x1):** Interpolated grid:  $dx=1.500$  mm,  $dy=1.500$  mm

Maximum value of SAR (interpolated) = 1.12 W/kg

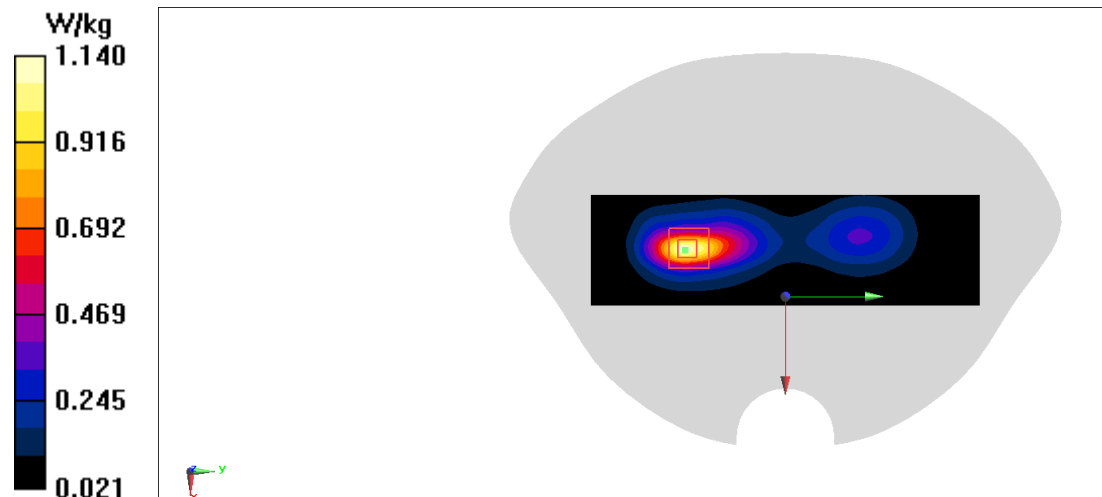
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 11.07 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 1.33 W/kg

**SAR(1 g) = 0.745 W/kg; SAR(10 g) = 0.391 W/kg**

Maximum value of SAR (measured) = 1.14 W/kg

**Fig A.8**

**WCDMA850-BV\_CH4233 Right Tilt**

Date: 11/21/2021

Electronics: DAE4 Sn1331

Medium: head 835 MHz

Medium parameters used:  $f = 846.6$  MHz;  $\sigma = 0.858$  S/m;  $\epsilon_r = 45.438$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: WCDMA850-BV 846.6 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7548 ConvF(10.36,10.36,10.36)

**Area Scan (81x141x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.44 W/kg

**Configuration/RIGHT TITL/Zoom Scan (7x7x7)/Cube 0:** Measurement

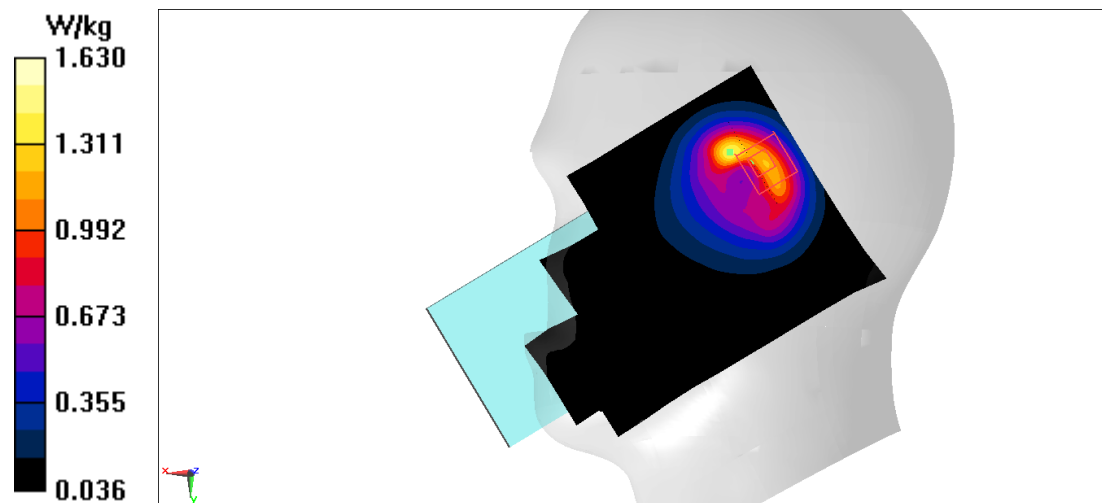
grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 23.49 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 2.14 W/kg

**SAR(1 g) = 0.945 W/kg; SAR(10 g) = 0.497 W/kg**

Maximum value of SAR (measured) = 1.63 W/kg

**Fig A.9**

**WCDMA850-BV\_CH4233 Top 10mm**

Date: 11/21/2021

Electronics: DAE4 Sn1331

Medium: head 835 MHz

Medium parameters used:  $f = 846.6$  MHz;  $\sigma = 0.858$  S/m;  $\epsilon_r = 45.438$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: WCDMA850-BV 846.6 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7548 ConvF(10.36,10.36,10.36)

**Area Scan (81x81x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.623 W/kg

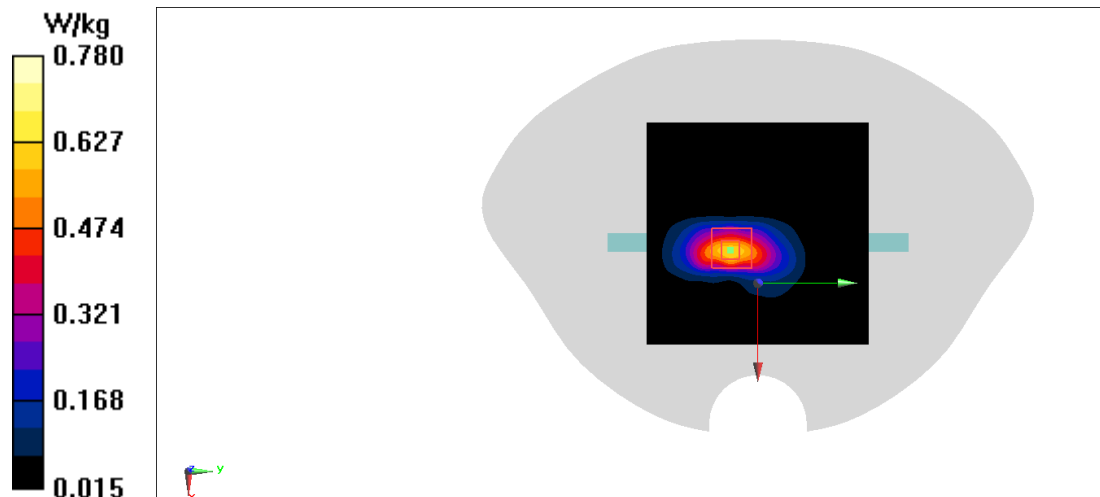
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 26.16 V/m; Power Drift = -0.2 dB

Peak SAR (extrapolated) = 1.02 W/kg

**SAR(1 g) = 0.473 W/kg; SAR(10 g) = 0.235 W/kg**

Maximum value of SAR (measured) = 0.780 W/kg

**Fig A.10**

**LTE1900-FDD2 ANT2\_CH18900 Right Cheek**

Date: 11/25/2021

Electronics: DAE4 Sn1331

Medium: head 1900 MHz

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.462$  S/m;  $\epsilon_r = 41.585$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: LTE1900-FDD2 1880 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7548 ConvF(7.88, 7.88, 7.88)

**Area Scan (71x141x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 2.03 W/kg

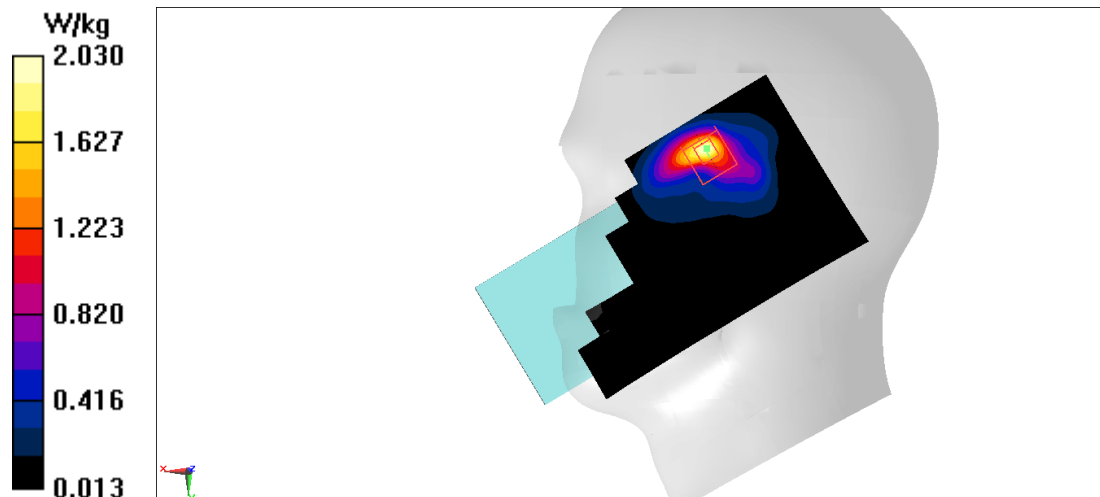
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.27 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 2.48 W/kg

**SAR(1 g) = 1.19 W/kg; SAR(10 g) = 0.564 W/kg**

Maximum value of SAR (measured) = 2.03 W/kg

**Fig A.11**

**LTE1900-FDD2 ANT2\_CH18900 Left 10mm**

Date: 11/25/2021

Electronics: DAE4 Sn1331

Medium: head 1900 MHz

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.462$  S/m;  $\epsilon_r = 41.585$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: LTE1900-FDD2 1880 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7548 ConvF(7.88, 7.88, 7.88)

**Area Scan (81x141x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.58 W/kg

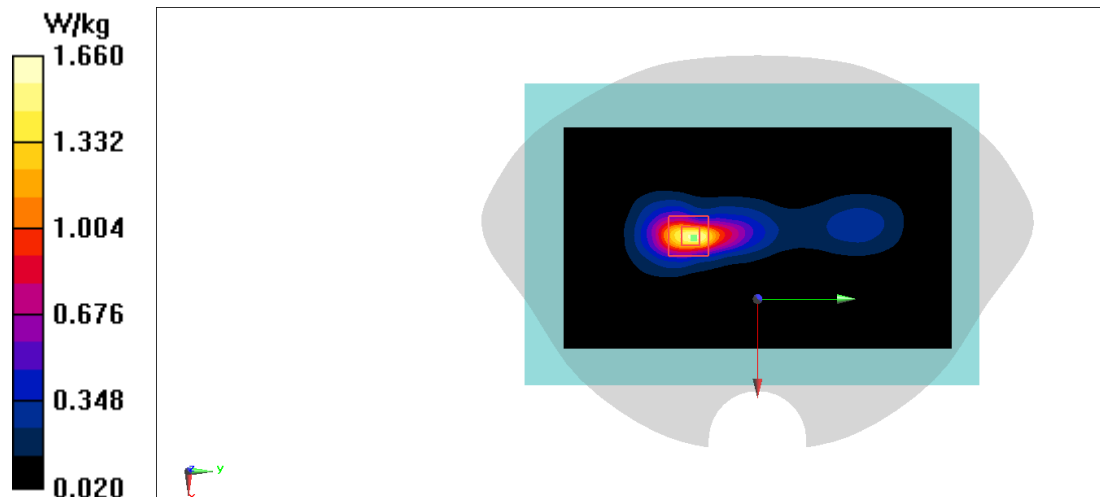
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.67 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 2.00 W/kg

**SAR(1 g) = 1.04 W/kg; SAR(10 g) = 0.518 W/kg**

Maximum value of SAR (measured) = 1.66 W/kg

**Fig A.12**



**LTE1900-FDD2 ANT1\_CH19100 Left Cheek**

Date: 11/25/2021

Electronics: DAE4 Sn1331

Medium: head 1900 MHz

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.475$  S/m;  $\epsilon_r = 41.54$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: LTE1900-FDD2 1900 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7548 ConvF(7.88, 7.88, 7.88)

**Area Scan (81x141x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.151 W/kg

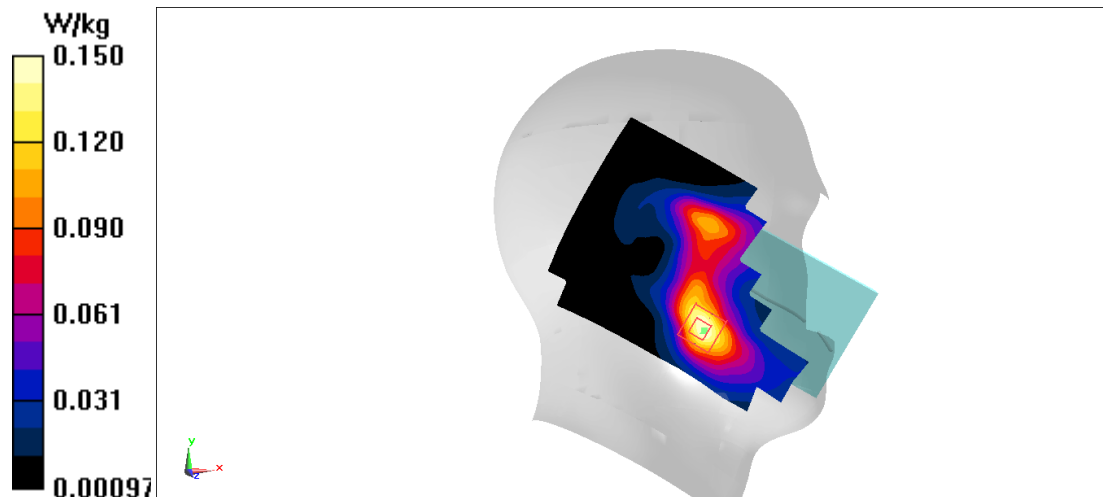
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.748 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.168 W/kg

**SAR(1 g) = 0.114 W/kg; SAR(10 g) = 0.071 W/kg**

Maximum value of SAR (measured) = 0.150 W/kg

**Fig A.13**

**LTE1900-FDD2 ANT1\_CH19100 Bottom 10mm**

Date: 11/25/2021

Electronics: DAE4 Sn1331

Medium: head 1900 MHz

Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.475$  S/m;  $\epsilon_r = 41.54$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: LTE1900-FDD2 1900 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7548 ConvF(7.88, 7.88, 7.88)

**Area Scan (71x141x1):** Interpolated grid:  $dx=1.500$  mm,  $dy=1.500$  mm

Maximum value of SAR (interpolated) = 0.552 W/kg

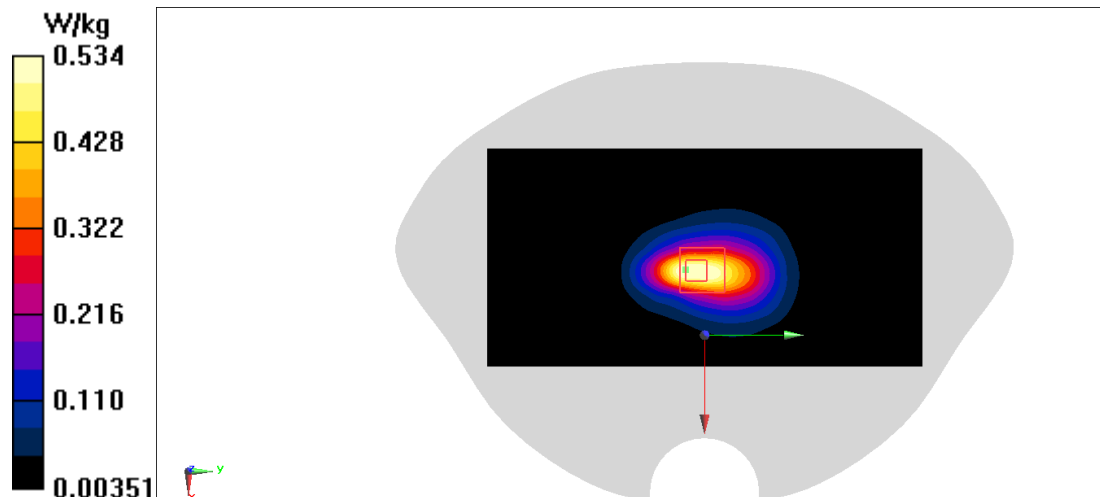
**Zoom Scan (6x6x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 18.04 V/m; Power Drift = 0.2 dB

Peak SAR (extrapolated) = 0.649 W/kg

**SAR(1 g) = 0.365 W/kg; SAR(10 g) = 0.200 W/kg**

Maximum value of SAR (measured) = 0.534 W/kg



**Fig A.14**

**LTE2500-FDD7\_CH20850 Left Cheek**

Date: 11/28/2021

Electronics: DAE4 Sn1331

Medium: head 2600 MHz

Medium parameters used:  $f = 2510$  MHz;  $\sigma = 1.961$  S/m;  $\epsilon_r = 40.42$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: LTE2500-FDD7 2510 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7548 ConvF(7.11,7.11,7.11)

**Area Scan (91x171x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 1.66 W/kg

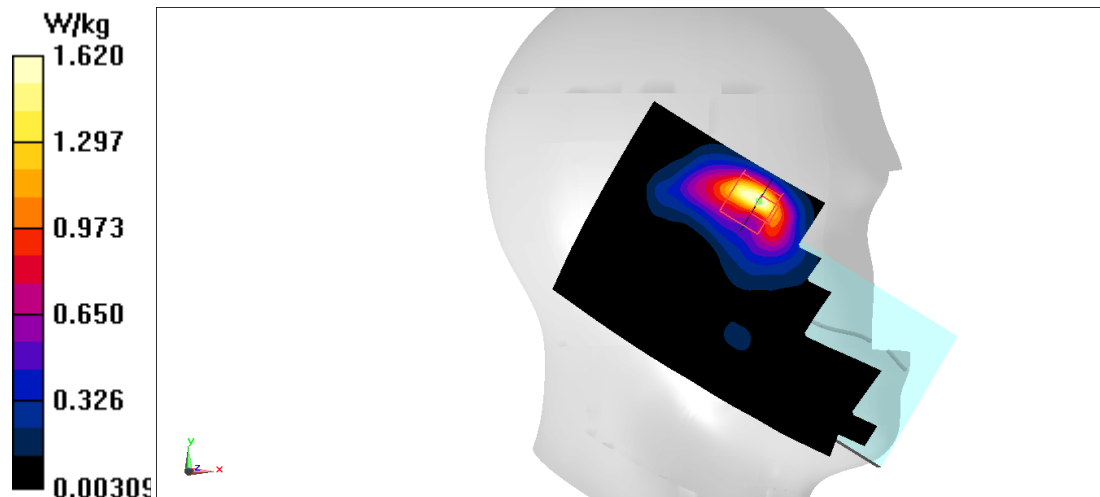
**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 5.796 V/m; Power Drift = -0.18 dB

Peak SAR (extrapolated) = 2.14 W/kg

**SAR(1 g) = 0.874 W/kg; SAR(10 g) = 0.393 W/kg**

Maximum value of SAR (measured) = 1.62 W/kg



**Fig A.15**

**LTE2500-FDD7\_CH21350 Right 10mm**

Date: 11/28/2021

Electronics: DAE4 Sn1331

Medium: head 2600 MHz

Medium parameters used:  $f = 2560$  MHz;  $\sigma = 2.01$  S/m;  $\epsilon_r = 40.318$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: LTE2500-FDD7 2560 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7548 ConvF(7.11,7.11,7.11)

**Area Scan (51x171x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.927 W/kg

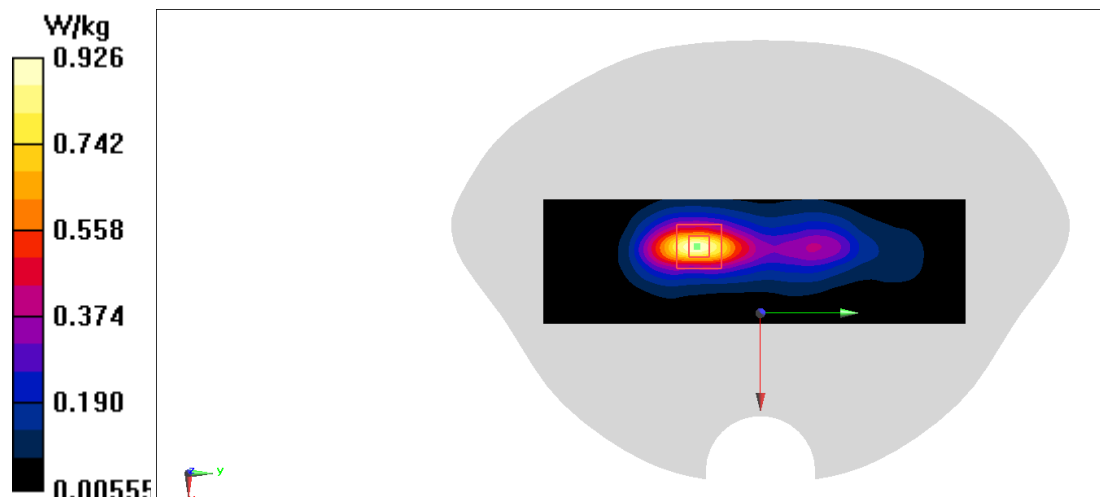
**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 12.54 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 1.14 W/kg

**SAR(1 g) = 0.556 W/kg; SAR(10 g) = 0.264 W/kg**

Maximum value of SAR (measured) = 0.926 W/kg



**Fig A.16**

**LTE700-FDD12\_CH23130 Right Cheek**

Date: 11/19/2021

Electronics: DAE4 Sn1331

Medium: head 750 MHz

Medium parameters used:  $f = 711 \text{ MHz}$ ;  $\sigma = 0.795 \text{ S/m}$ ;  $\epsilon_r = 45.968$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: LTE700-FDD12 711 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7548 ConvF(10.36,10.36,10.36)

**Area Scan (81x141x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 1.36 W/kg

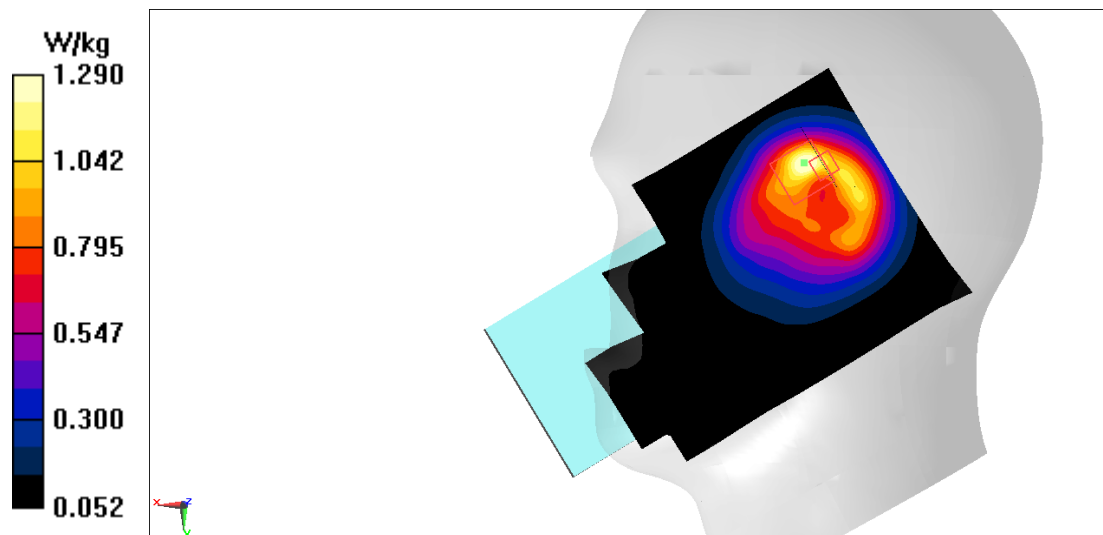
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value = 24.14 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 1.66 W/kg

**SAR(1 g) = 0.796 W/kg; SAR(10 g) = 0.471 W/kg**

Maximum value of SAR (measured) = 1.29 W/kg



**Fig A.17**

**LTE700-FDD12\_CH23130 Rear 10mm**

Date: 11/19/2021

Electronics: DAE4 Sn1331

Medium: head 750 MHz

Medium parameters used:  $f = 711 \text{ MHz}$ ;  $\sigma = 0.795 \text{ S/m}$ ;  $\epsilon_r = 45.968$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature:  $22.9^\circ\text{C}$ , Liquid Temperature:  $22.5^\circ\text{C}$

Communication System: LTE700-FDD12 711 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7548 ConvF(10.36,10.36,10.36)

**Area Scan (71x131x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) =  $0.772 \text{ W/kg}$

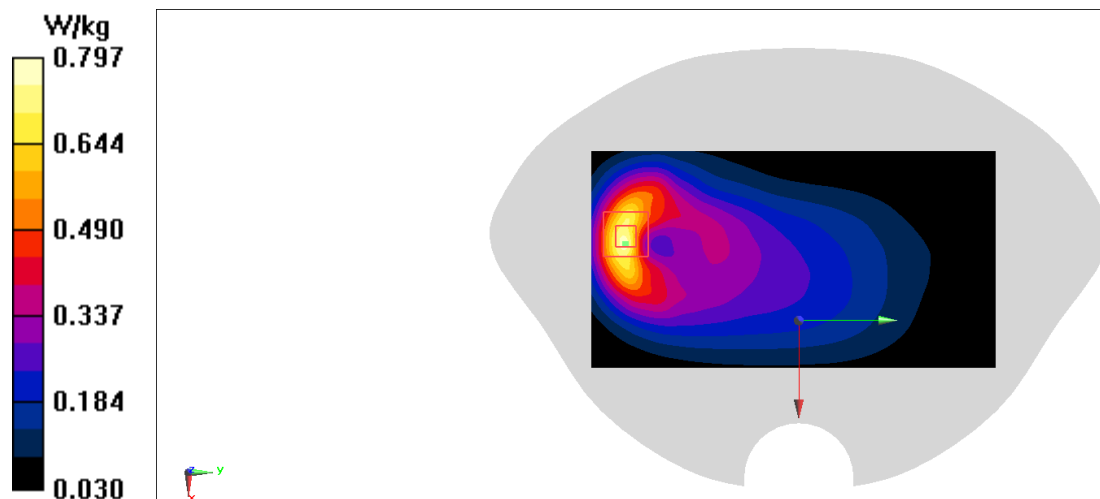
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $18.66 \text{ V/m}$ ; Power Drift =  $-0.04 \text{ dB}$

Peak SAR (extrapolated) =  $0.967 \text{ W/kg}$

**SAR(1 g) =  $0.528 \text{ W/kg}$ ; SAR(10 g) =  $0.311 \text{ W/kg}$**

Maximum value of SAR (measured) =  $0.797 \text{ W/kg}$



**Fig A.18**

**LTE750-FDD13\_CH23230 Left Cheek**

Date: 11/19/2021

Electronics: DAE4 Sn1331

Medium: head 750 MHz

Medium parameters used:  $f = 782$  MHz;  $\sigma = 0.828$  S/m;  $\epsilon_r = 45.694$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: LTE750-FDD13 782 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7548 ConvF(10.36,10.36,10.36)

**Area Scan (81x141x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.894 W/kg

**Zoom Scan (6x6x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 19.16 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 1.16 W/kg

**SAR(1 g) = 0.527 W/kg; SAR(10 g) = 0.280 W/kg**

Maximum value of SAR (measured) = 0.878 W/kg

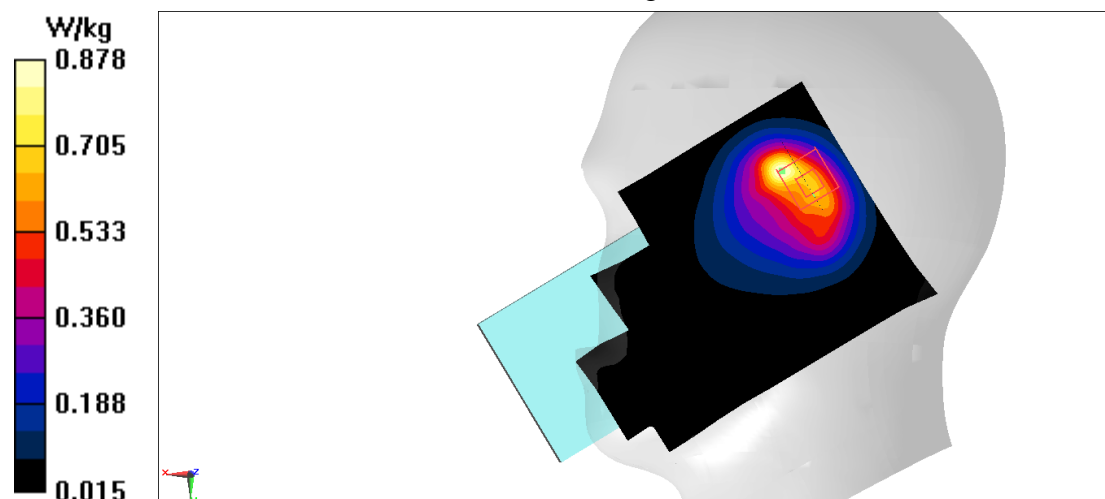


Fig A.19

**LTE750-FDD13\_CH23230 Rear 10mm**

Date: 11/19/2021

Electronics: DAE4 Sn1331

Medium: head 750 MHz

Medium parameters used:  $f = 782 \text{ MHz}$ ;  $\sigma = 0.828 \text{ S/m}$ ;  $\epsilon_r = 45.694$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature:  $22.9^\circ\text{C}$ , Liquid Temperature:  $22.5^\circ\text{C}$

Communication System: LTE750-FDD13 782 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7548 ConvF(10.36,10.36,10.36)

**Area Scan (71x131x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) =  $0.477 \text{ W/kg}$

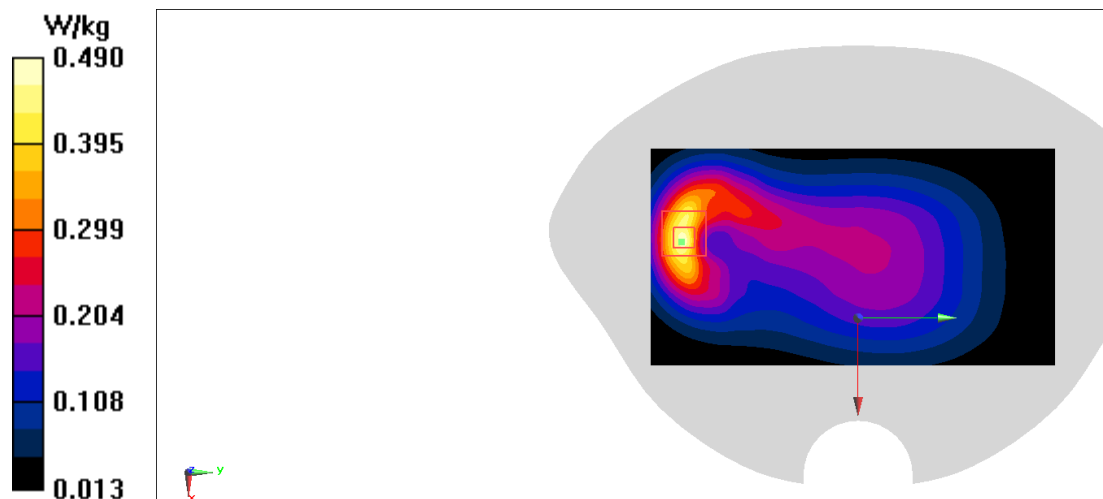
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $15.84 \text{ V/m}$ ; Power Drift =  $0.05 \text{ dB}$

Peak SAR (extrapolated) =  $0.595 \text{ W/kg}$

**SAR(1 g) =  $0.324 \text{ W/kg}$ ; SAR(10 g) =  $0.187 \text{ W/kg}$**

Maximum value of SAR (measured) =  $0.490 \text{ W/kg}$



**Fig A.20**



**LTE1900-FDD25\_CH26140 Right Cheek**

Date: 11/25/2021

Electronics: DAE4 Sn1331

Medium: head 1900 MHz

Medium parameters used:  $f = 1860$  MHz;  $\sigma = 1.45$  S/m;  $\epsilon_r = 41.669$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: LTE1900-FDD25 1860 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7548 ConvF(7.88, 7.88, 7.88)

**Area Scan (71x141x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.63 W/kg

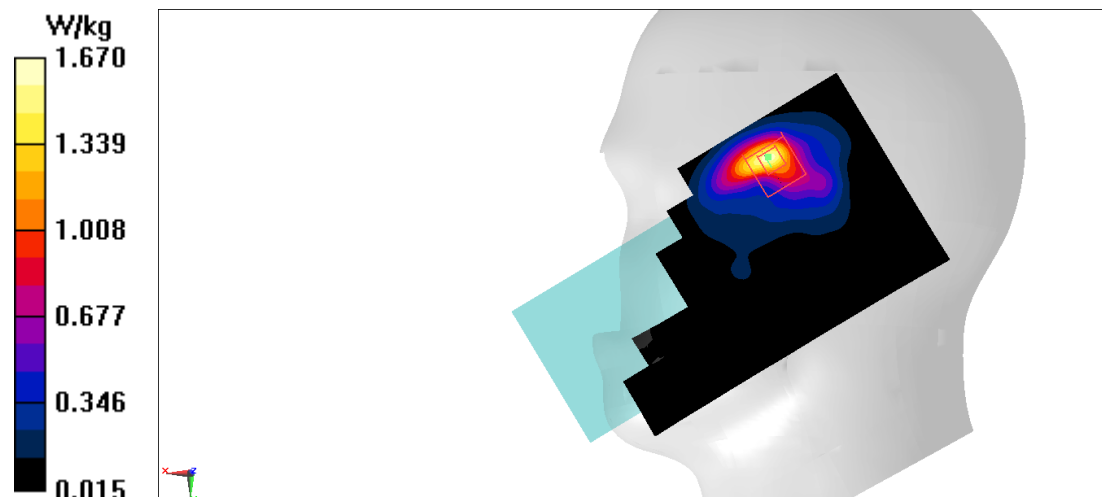
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.11 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 2.08 W/kg

**SAR(1 g) = 0.986 W/kg; SAR(10 g) = 0.470 W/kg**

Maximum value of SAR (measured) = 1.67 W/kg

**Fig A.21**

**LTE1900-FDD25\_CH26140 Left 10mm**

Date: 11/25/2021

Electronics: DAE4 Sn1331

Medium: head 1900 MHz

Medium parameters used:  $f = 1860$  MHz;  $\sigma = 1.45$  S/m;  $\epsilon_r = 41.669$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: LTE1900-FDD2 1860 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7548 ConvF(7.88, 7.88, 7.88)

**Area Scan (81x141x1):** Interpolated grid:  $dx=1.500$  mm,  $dy=1.500$  mm

Maximum value of SAR (interpolated) = 1.47 W/kg

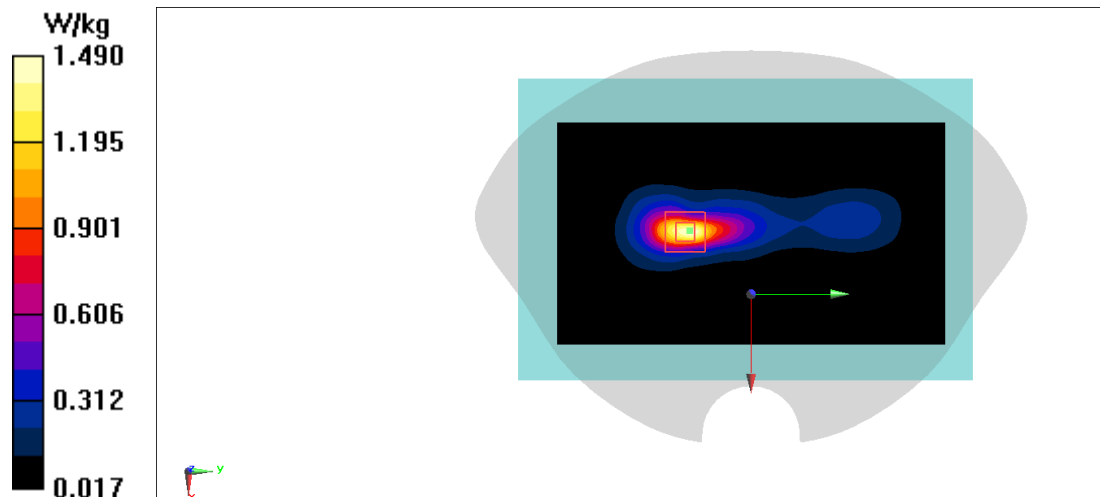
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 13.12 V/m; Power Drift = 0.18 dB

Peak SAR (extrapolated) = 1.86 W/kg

**SAR(1 g) = 0.968 W/kg; SAR(10 g) = 0.478 W/kg**

Maximum value of SAR (measured) = 1.49 W/kg

**Fig A.22**

**LTE850-FDD26\_CH26965 Right Tilt**

Date: 11/21/2021

Electronics: DAE4 Sn1331

Medium: head 835 MHz

Medium parameters used:  $f = 841.5$  MHz;  $\sigma = 0.86$  S/m;  $\epsilon_r = 44.154$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: LTE850-FDD26 841.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7548 ConvF(10.36,10.36,10.36)

**Area Scan (81x141x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.950 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 27.32 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.58 W/kg

**SAR(1 g) = 0.715 W/kg; SAR(10 g) = 0.376 W/kg**

Maximum value of SAR (measured) = 1.22 W/kg

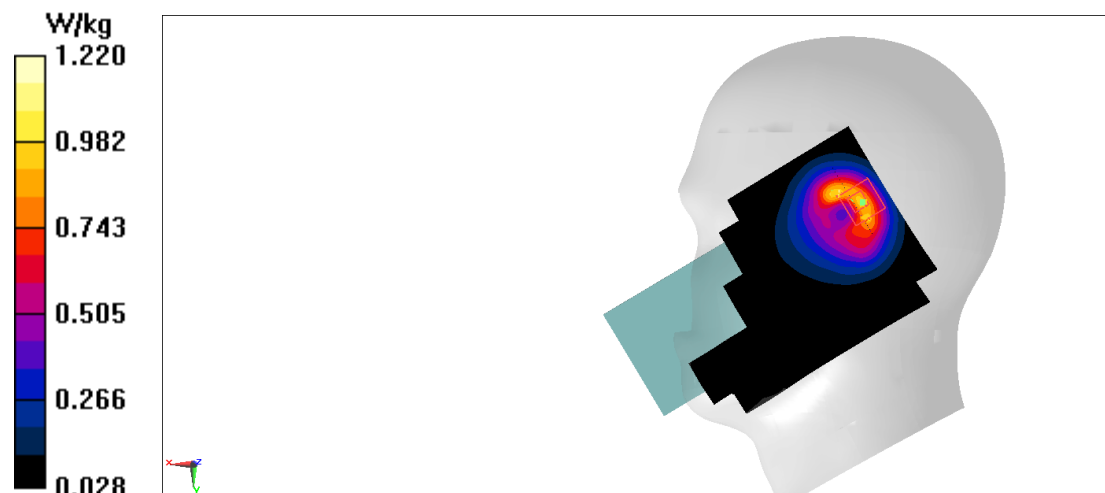


Fig A.23

**LTE850-FDD26\_CH26965 Top 10mm**

Date: 11/21/2021

Electronics: DAE4 Sn1331

Medium: head 835 MHz

Medium parameters used:  $f = 841.5$  MHz;  $\sigma = 0.876$  S/m;  $\epsilon_r = 43.96$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: LTE850-FDD26 841.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7548 ConvF(10.36,10.36,10.36)

**Area Scan (41x101x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.863 W/kg

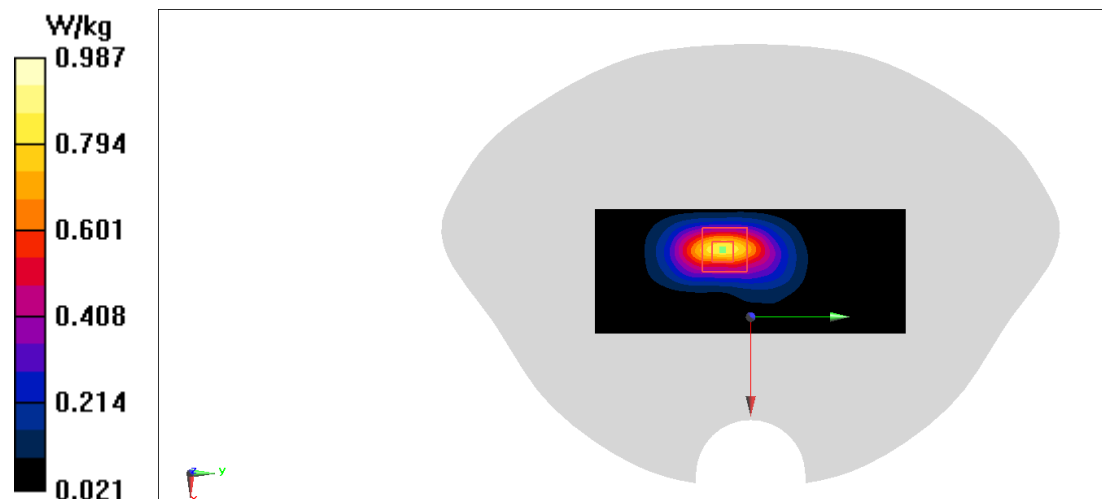
**Zoom Scan (5x5x5)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.33 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 1.28 W/kg

**SAR(1 g) = 0.615 W/kg; SAR(10 g) = 0.312 W/kg**

Maximum value of SAR (measured) = 0.987 W/kg

**Fig A.24**

**LTE2500-TDD41 PC3\_CH41055 Right Cheek**

Date: 11/28/2021

Electronics: DAE4 Sn1331

Medium: head 2600 MHz

Medium parameters used:  $f = 2636.5$  MHz;  $\sigma = 2.08$  S/m;  $\epsilon_r = 40.046$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: LTE2500-TDD41 2636.5 MHz Duty Cycle: 1:1.58

Probe: EX3DV4 – SN7548 ConvF(7.11,7.11,7.11)

**Area Scan (101x171x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 1.00 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.148 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 1.44 W/kg

**SAR(1 g) = 0.645 W/kg; SAR(10 g) = 0.297 W/kg**

Maximum value of SAR (measured) = 1.14 W/kg

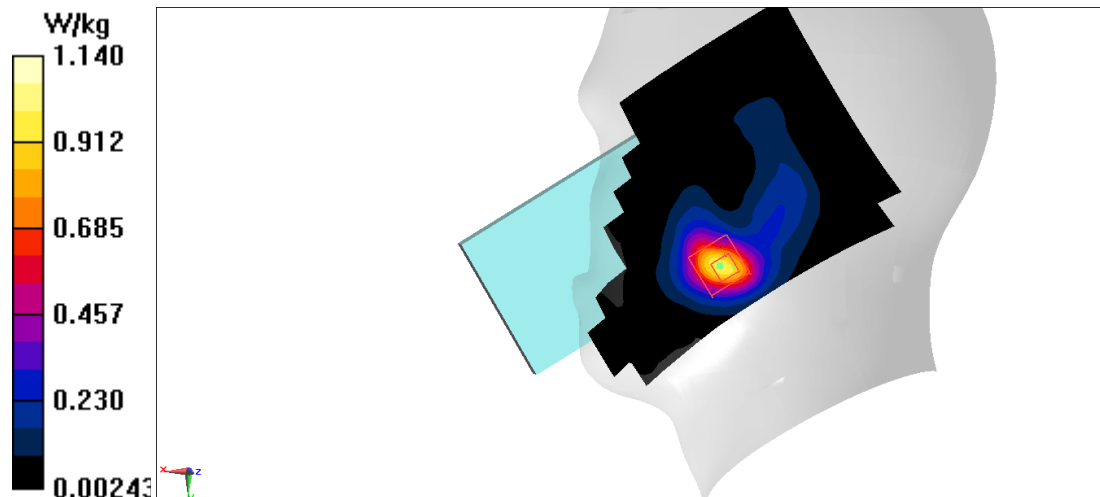


Fig A.25

**LTE2500-TDD41 PC3\_CH41055 Right 10mm**

Date: 11/28/2021

Electronics: DAE4 Sn1331

Medium: head 2600 MHz

Medium parameters used:  $f = 2636.5$  MHz;  $\sigma = 2.08$  S/m;  $\epsilon_r = 40.046$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: LTE2500-TDD41 2636.5 MHz Duty Cycle: 1:1.58

Probe: EX3DV4 – SN7548 ConvF(7.11,7.11,7.11)

**Area Scan (51x171x1):** Interpolated grid:  $dx=1.200$  mm,  $dy=1.200$  mm

Maximum value of SAR (interpolated) = 1.26 W/kg

**Zoom Scan (7x8x7)/Cube 0:** Measurement grid:  $dx=5$ mm,  $dy=5$ mm,  $dz=5$ mm

Reference Value = 12.78 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 1.61 W/kg

**SAR(1 g) = 0.746 W/kg; SAR(10 g) = 0.346 W/kg**

Maximum value of SAR (measured) = 1.28 W/kg

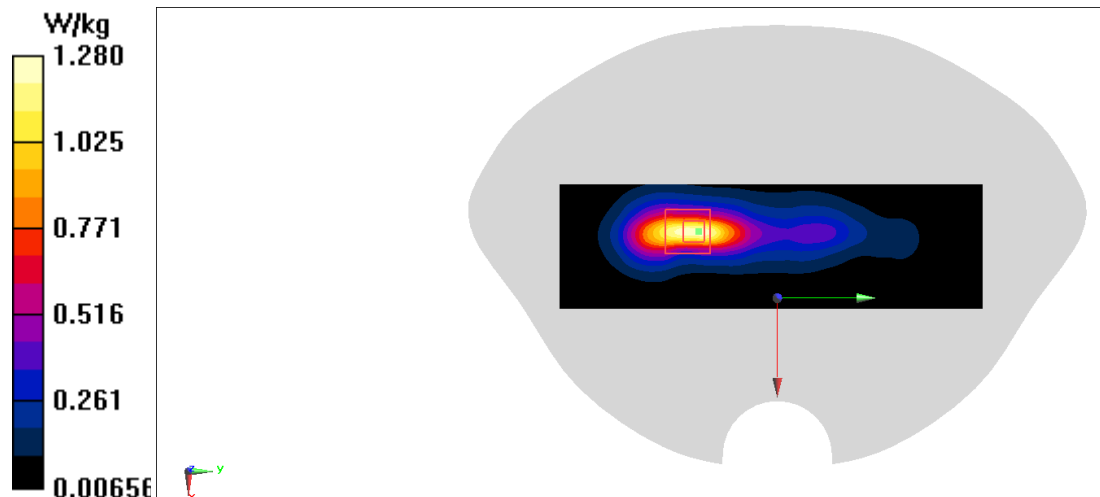


Fig A.26

**LTE2500-TDD41 PC2\_CH40185 Left Cheek**

Date: 11/28/2021

Electronics: DAE4 Sn1331

Medium: head 2600 MHz

Medium parameters used:  $f = 2550$  MHz;  $\sigma = 2.002$  S/m;  $\epsilon_r = 40.326$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: LTE2500-TDD41 2550 MHz Duty Cycle: 1:2.37

Probe: EX3DV4 – SN7548 ConvF(7.11,7.11,7.11)

**Area Scan (101x171x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 2.96 W/kg

**Zoom Scan (7x8x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.680 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 2.48 W/kg

**SAR(1 g) = 1.01 W/kg; SAR(10 g) = 0.470 W/kg**

Maximum value of SAR (measured) = 1.86 W/kg

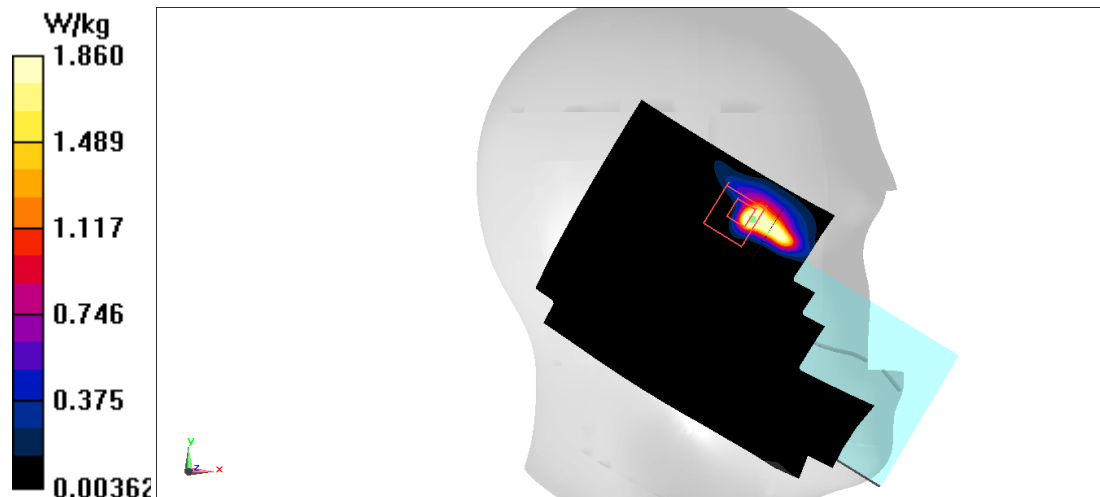


Fig A.27

**LTE2500-TDD41 PC2\_CH40185 Right 10mm**

Date: 11/28/2021

Electronics: DAE4 Sn1331

Medium: head 2600 MHz

Medium parameters used:  $f = 2550$  MHz;  $\sigma = 2.002$  S/m;  $\epsilon_r = 40.326$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: LTE2500-TDD41 2550 MHz Duty Cycle: 1:2.37

Probe: EX3DV4 – SN7548 ConvF(7.11,7.11,7.11)

**Area Scan (61x171x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 1.91 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 19.39 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 2.38 W/kg

**SAR(1 g) = 1.15 W/kg; SAR(10 g) = 0.539 W/kg**

Maximum value of SAR (measured) = 1.92 W/kg

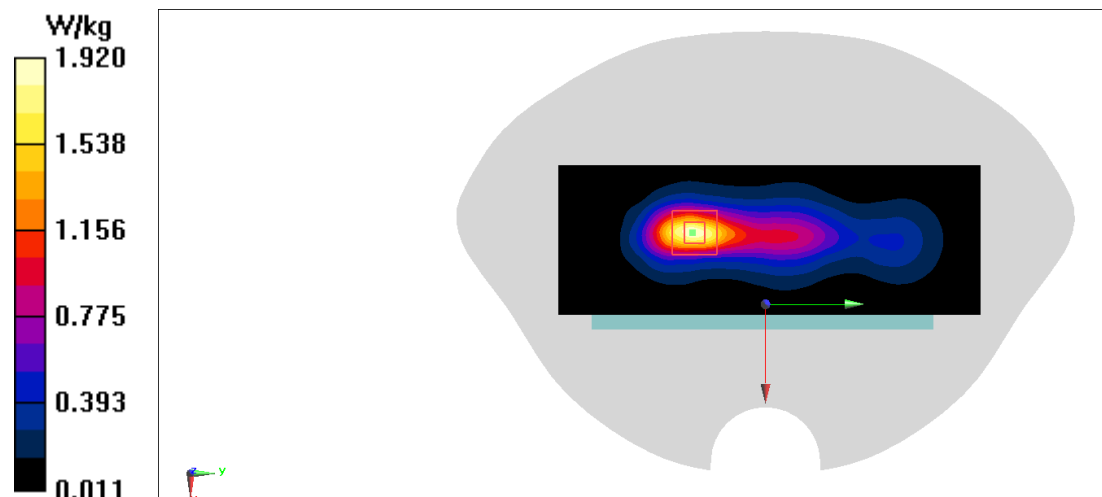


Fig A.28



**LTE1700-FDD66 ANT2\_CH132572 Right Cheek**

Date: 11/23/2021

Electronics: DAE4 Sn1331

Medium: head 1700 MHz

Medium parameters used:  $f = 1770$  MHz;  $\sigma = 1.392$  S/m;  $\epsilon_r = 41.911$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: LTE1700-FDD66 1770 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7548 ConvF(8.14, 8.14, 8.14)

**Area Scan (71x141x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.22 W/kg

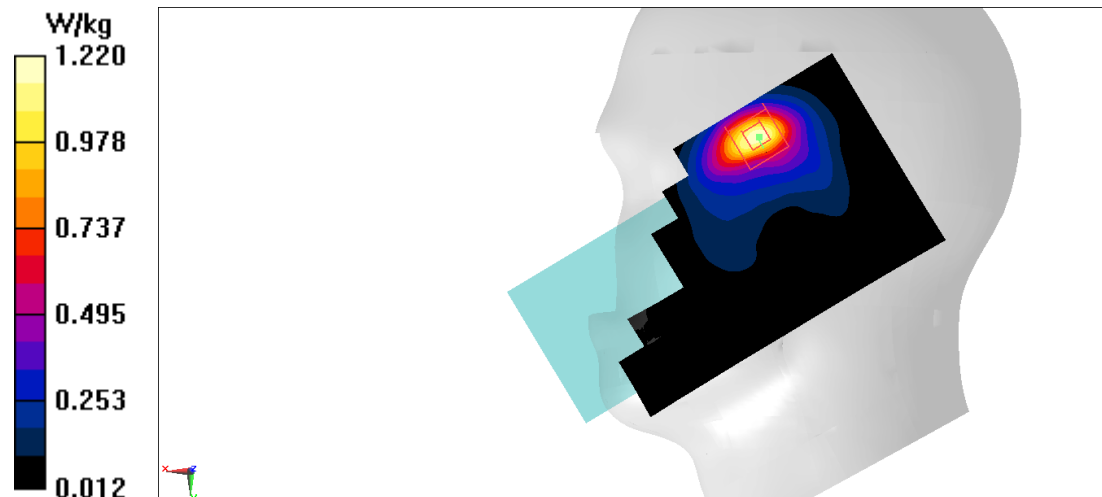
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.67 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 1.57 W/kg

**SAR(1 g) = 0.761 W/kg; SAR(10 g) = 0.376 W/kg**

Maximum value of SAR (measured) = 1.22 W/kg

**Fig A.29**

**LTE1700-FDD66 ANT2\_CH132322 Left 10mm**

Date: 11/23/2021

Electronics: DAE4 Sn1331

Medium: head 1700 MHz

Medium parameters used:  $f = 1745$  MHz;  $\sigma = 1.374$  S/m;  $\epsilon_r = 42.015$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: LTE1700-FDD66 1745 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7548 ConvF(8.14, 8.14, 8.14)

**Area Scan (81x141x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.12 W/kg

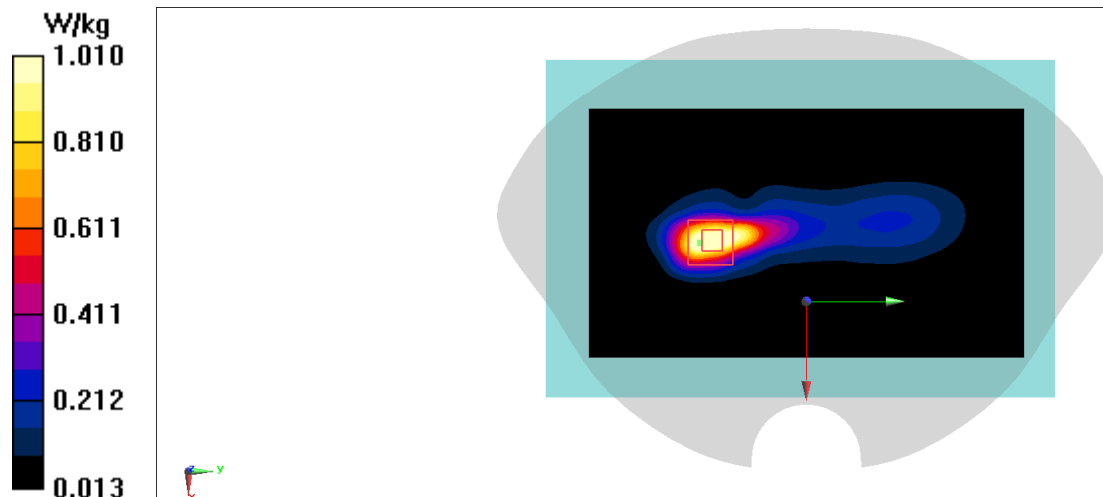
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.99 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 1.24 W/kg

**SAR(1 g) = 0.700 W/kg; SAR(10 g) = 0.384 W/kg**

Maximum value of SAR (measured) = 1.01 W/kg

**Fig A.30**

**LTE1700-FDD66 ANT1\_CH132322 Right Cheek**

Date: 11/23/2021

Electronics: DAE4 Sn1331

Medium: head 1700 MHz

Medium parameters used:  $f = 1745$  MHz;  $\sigma = 1.374$  S/m;  $\epsilon_r = 42.015$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: LTE1700-FDD66 1745 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7548 ConvF(8.14, 8.14, 8.14)

**Area Scan (81x141x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.0977 W/kg

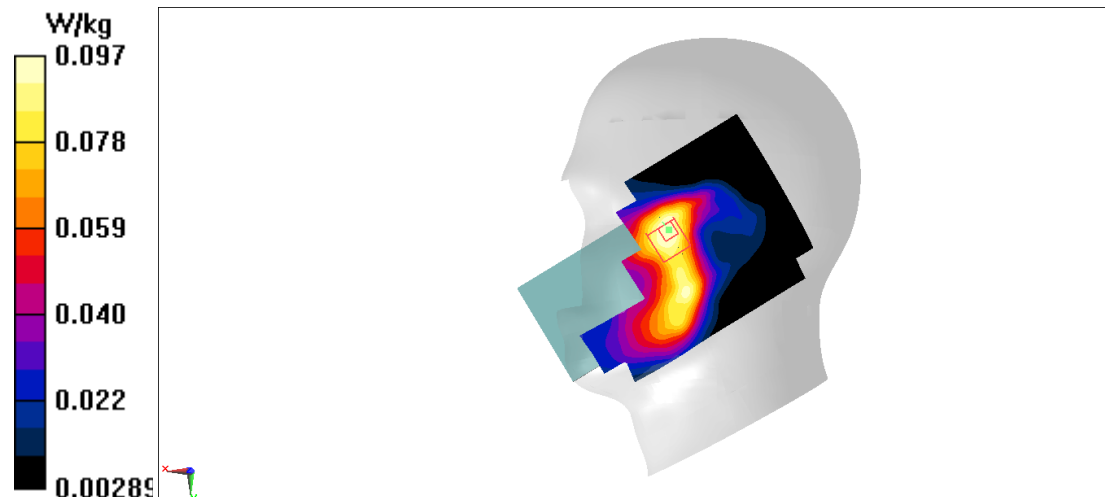
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.747 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.114 W/kg

**SAR(1 g) = 0.076 W/kg; SAR(10 g) = 0.051 W/kg**

Maximum value of SAR (measured) = 0.0966 W/kg

**Fig A.31**

**LTE1700-FDD66 ANT1\_CH132322 Bottom 10mm**

Date: 11/23/2021

Electronics: DAE4 Sn1331

Medium: head 1700 MHz

Medium parameters used:  $f = 1745$  MHz;  $\sigma = 1.374$  S/m;  $\epsilon_r = 42.015$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: LTE1700-FDD66 1745 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7548 ConvF(8.14, 8.14, 8.14)

**Area Scan (41x101x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.717 W/kg

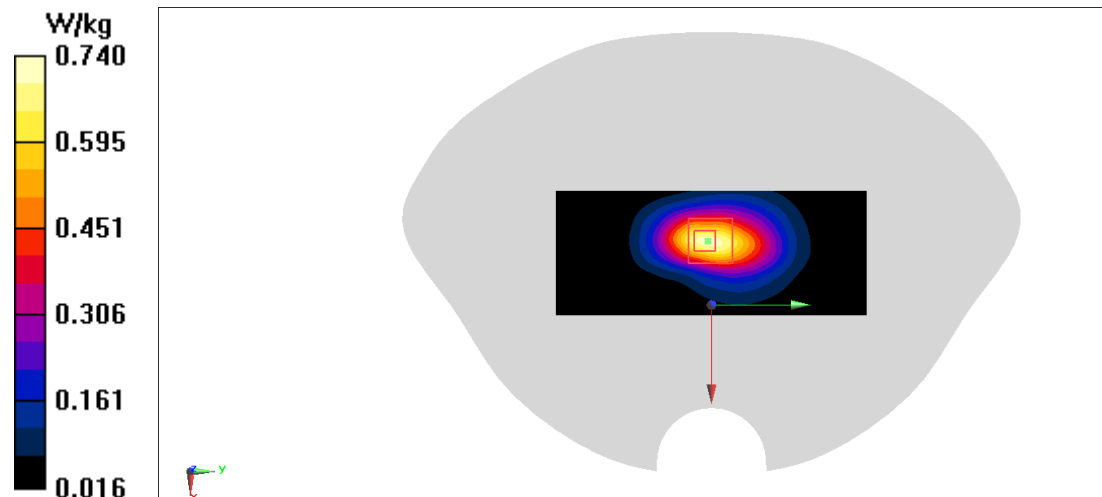
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 21.92 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.887 W/kg

**SAR(1 g) = 0.505 W/kg; SAR(10 g) = 0.281 W/kg**

Maximum value of SAR (measured) = 0.740 W/kg

**Fig A.32**

**LTE700-FDD71\_CH133222 Right Tilt**

Date: 11/19/2021

Electronics: DAE4 Sn1331

Medium: head 750 MHz

Medium parameters used:  $f = 673$  MHz;  $\sigma = 0.778$  S/m;  $\epsilon_r = 46.134$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: LTE700-FDD71 673 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7548 ConvF(10.36, 10.36, 10.36)

**Area Scan (81x141x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.21 W/kg

**Zoom Scan (6x6x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 23.68 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 1.60 W/kg

**SAR(1 g) = 0.665 W/kg; SAR(10 g) = 0.359 W/kg**

Maximum value of SAR (measured) = 1.18 W/kg

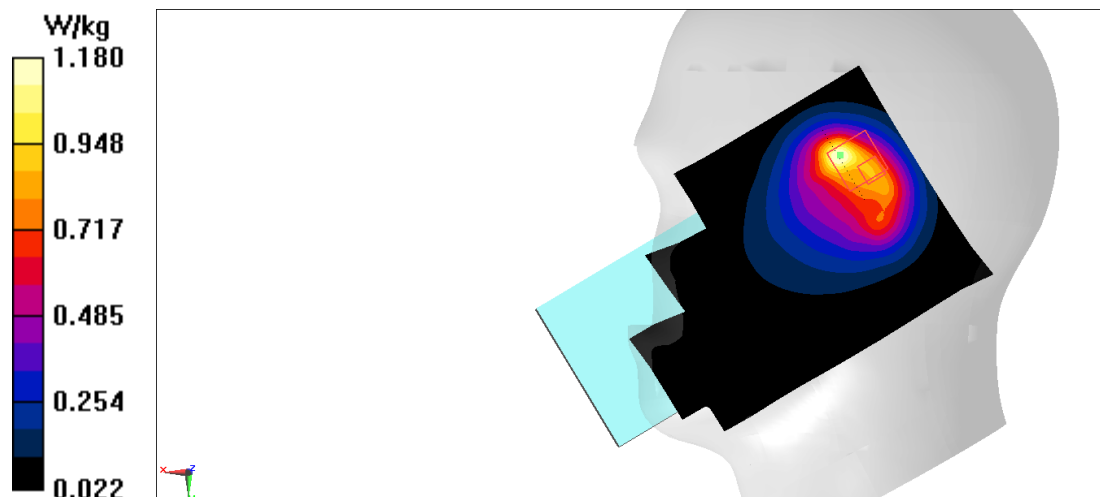


Fig A.33

**LTE700-FDD71\_CH133222 Rear 10mm**

Date: 11/19/2021

Electronics: DAE4 Sn1331

Medium: head 750 MHz

Medium parameters used:  $f = 673$  MHz;  $\sigma = 0.778$  S/m;  $\epsilon_r = 46.134$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: LTE700-FDD71 673 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7548 ConvF(10.36, 10.36, 10.36)

**Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.624 W/kg

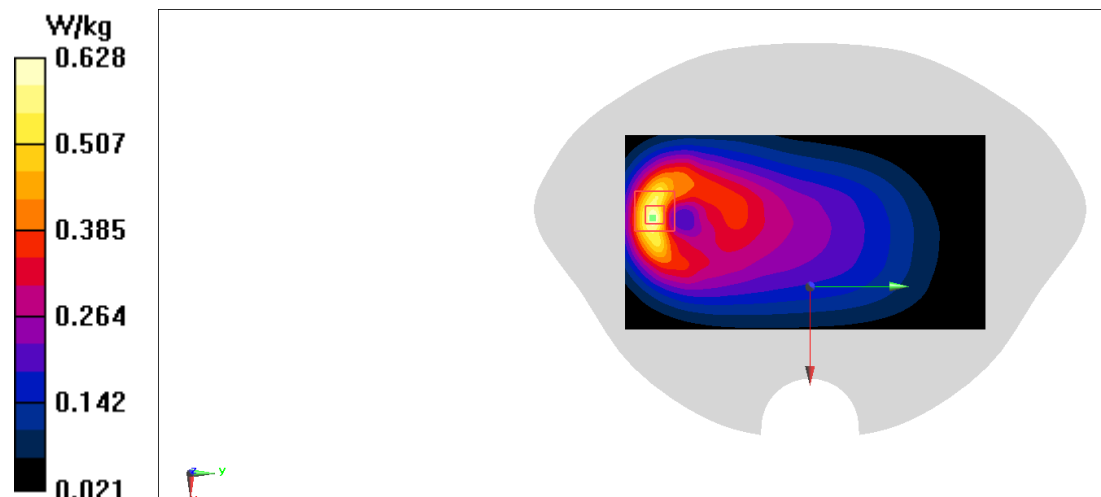
**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 17.63 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.768 W/kg

**SAR(1 g) = 0.416 W/kg; SAR(10 g) = 0.243 W/kg**

Maximum value of SAR (measured) = 0.628 W/kg

**Fig A.34**

**5G n25\_CH376500 Right Cheek**

Date: 11/26/2021

Electronics: DAE4 Sn1331

Medium: head 1900 MHz

Medium parameters used:  $f = 1882.5$  MHz;  $\sigma = 1.464$  S/m;  $\epsilon_r = 41.577$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.9°C

Communication System: 5G n25 1882.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7548 ConvF(7.88,7.88,7.88)

**Area Scan (81x141x1):** Interpolated grid:  $dx=1.500$  mm,  $dy=1.500$  mm

Maximum value of SAR (interpolated) = 1.75 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm

Reference Value = 8.775 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 2.27 W/kg

**SAR(1 g) = 1.14 W/kg; SAR(10 g) = 0.550 W/kg**

Maximum value of SAR (measured) = 1.75 W/kg

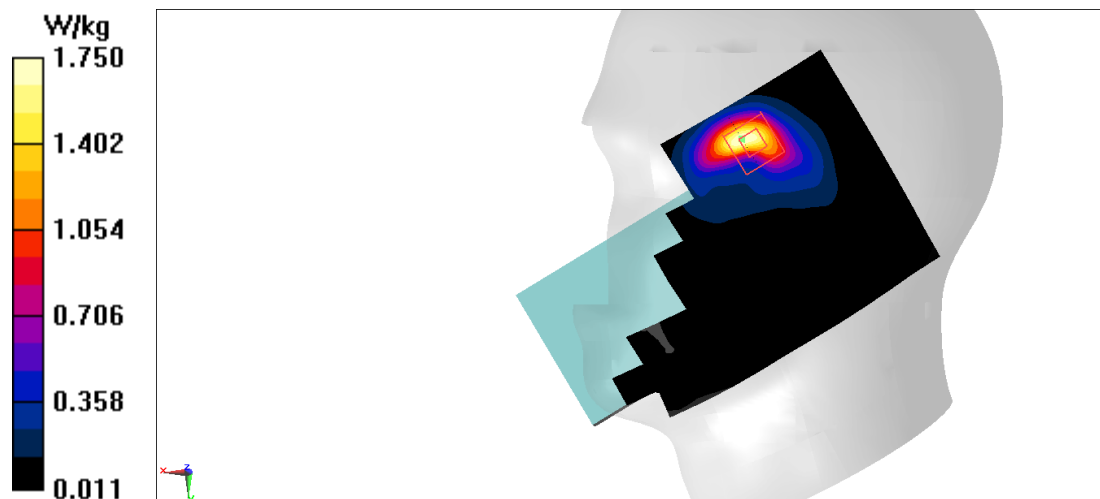


Fig A.35

**5G n25\_CH376500 Left 10mm**

Date: 11/26/2021

Electronics: DAE4 Sn1331

Medium: head 1900 MHz

Medium parameters used:  $f = 1882.5$  MHz;  $\sigma = 1.464$  S/m;  $\epsilon_r = 41.577$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.9°C

Communication System: 5G n25 1882.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7548 ConvF(7.88,7.88,7.88)

**Area Scan (41x141x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.74 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.79 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 2.08 W/kg

**SAR(1 g) = 1.12 W/kg; SAR(10 g) = 0.563 W/kg**

Maximum value of SAR (measured) = 1.76 W/kg

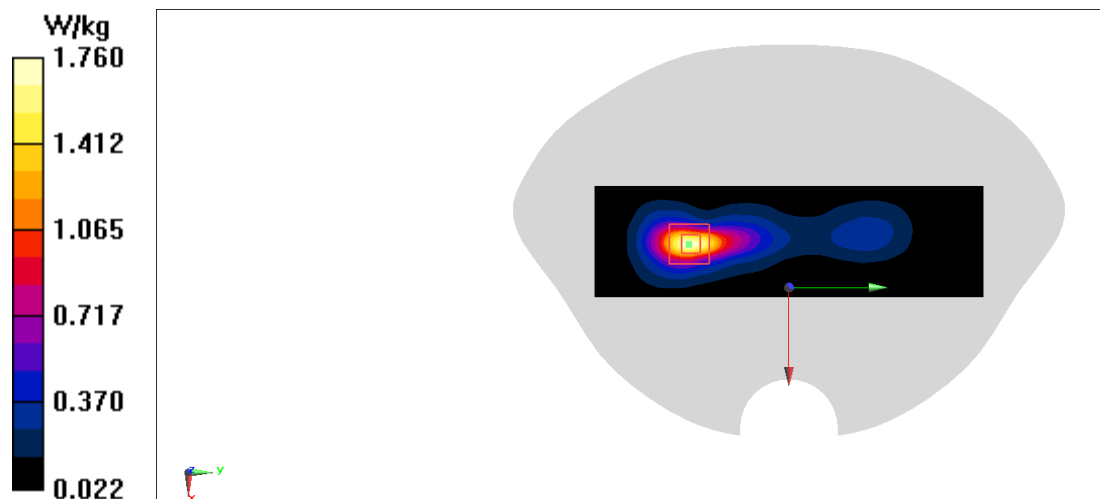


Fig A.36



**5G n41\_CH535998 Right Cheek**

Date: 11/29/2021

Electronics: DAE4 Sn1331

Medium: head 2600 MHz

Medium parameters used:  $f = 2680$  MHz;  $\sigma = 2.115$  S/m;  $\epsilon_r = 39.992$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.9°C

Communication System: 5G n41 2680 MHz Duty Cycle: 1:2

Probe: EX3DV4 – SN7548 ConvF(7.11,7.11,7.11)

**Area Scan (101x171x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 1.69 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 9.800 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 2.32 W/kg

**SAR(1 g) = 1.01 W/kg; SAR(10 g) = 0.448 W/kg**

Maximum value of SAR (measured) = 1.80 W/kg

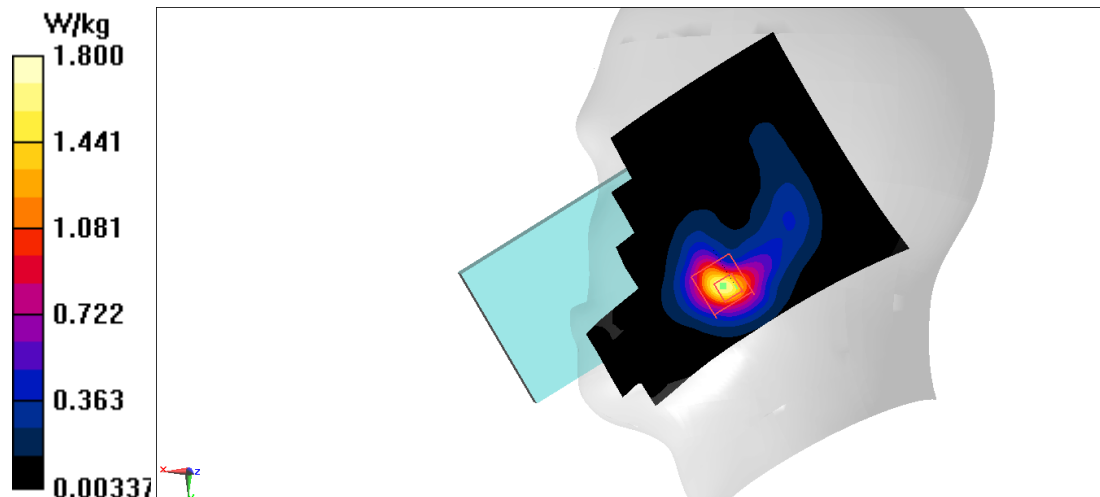


Fig A.37

**5G n41\_CH509902 Right 10mm**

Date: 11/29/2021

Electronics: DAE4 Sn1331

Medium: head 2600 MHz

Medium parameters used:  $f = 2550$  MHz;  $\sigma = 2.002$  S/m;  $\epsilon_r = 40.326$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.9°C

Communication System: 5G n41 2549.51 MHz Duty Cycle: 1:2

Probe: EX3DV4 – SN7548 ConvF(7.11,7.11,7.11)

**Area Scan (51x171x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 1.74 W/kg

**Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 15.76 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 2.23 W/kg

**SAR(1 g) = 1.07 W/kg; SAR(10 g) = 0.502 W/kg**

Maximum value of SAR (measured) = 1.68 W/kg

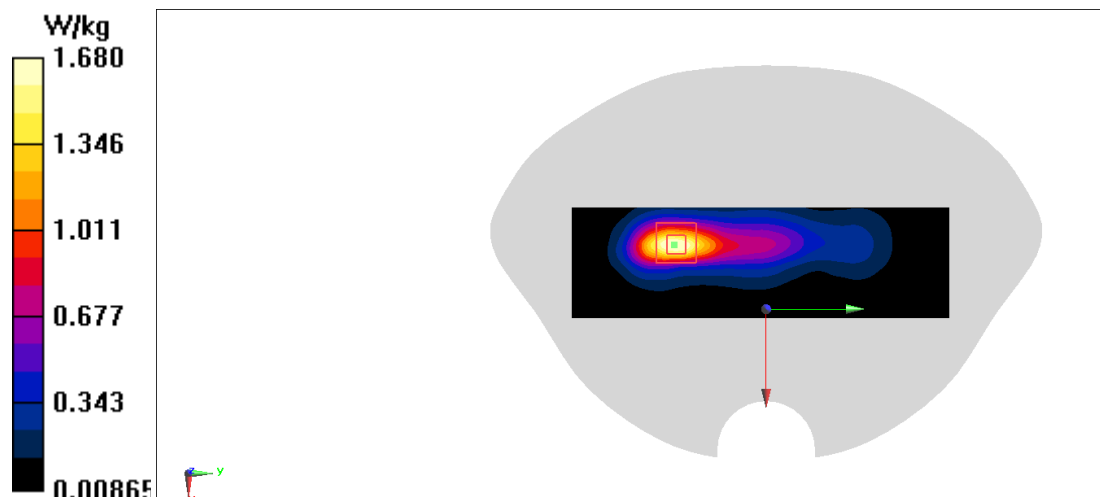


Fig A.38

**5G n66\_CH349000 Right Cheek**

Date: 11/24/2021

Electronics: DAE4 Sn1331

Medium: head 1750 MHz

Medium parameters used:  $f = 1745$  MHz;  $\sigma = 1.374$  S/m;  $\epsilon_r = 42.015$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: 5G n66 1745 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7548 ConvF(8.14,8.14,8.14)

**Area Scan (81x141x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.43 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 10.58 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 2.08 W/kg

**SAR(1 g) = 1.03 W/kg; SAR(10 g) = 0.503 W/kg**

Maximum value of SAR (measured) = 1.73 W/kg

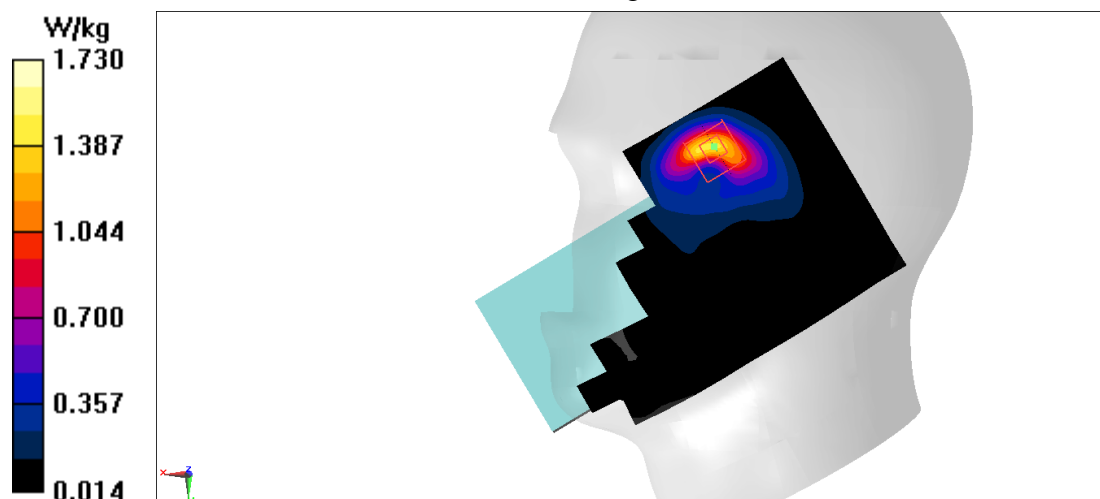


Fig A.39

**5G n66\_CH349000 Left 10mm**

Date: 11/24/2021

Electronics: DAE4 Sn1331

Medium: head 1750 MHz

Medium parameters used:  $f = 1745$  MHz;  $\sigma = 1.374$  S/m;  $\epsilon_r = 42.015$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: 5G n66 1745 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7548 ConvF(8.14,8.14,8.14)

**Area Scan (41x141x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.47 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 16.66 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 1.72 W/kg

**SAR(1 g) = 0.940 W/kg; SAR(10 g) = 0.481 W/kg**

Maximum value of SAR (measured) = 1.46 W/kg

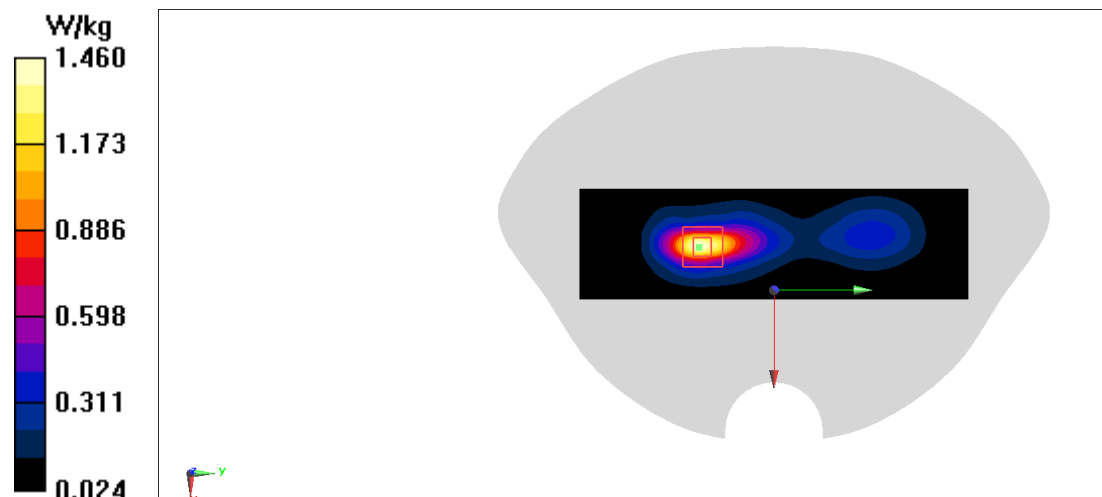


Fig A.40

**5G n71\_CH136100 Right Tilt**

Date: 11/20/2021

Electronics: DAE4 Sn1331

Medium: head 750 MHz

Medium parameters used:  $f = 680.5$  MHz;  $\sigma = 0.781$  S/m;  $\epsilon_r = 46.103$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: 5G n71 680.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7548 ConvF(10.36,10.36,10.36)

**Area Scan (81x141x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.70 W/kg

**Zoom Scan (6x6x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 27.71 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 2.11 W/kg

**SAR(1 g) = 0.902 W/kg; SAR(10 g) = 0.491 W/kg**

Maximum value of SAR (measured) = 1.58 W/kg

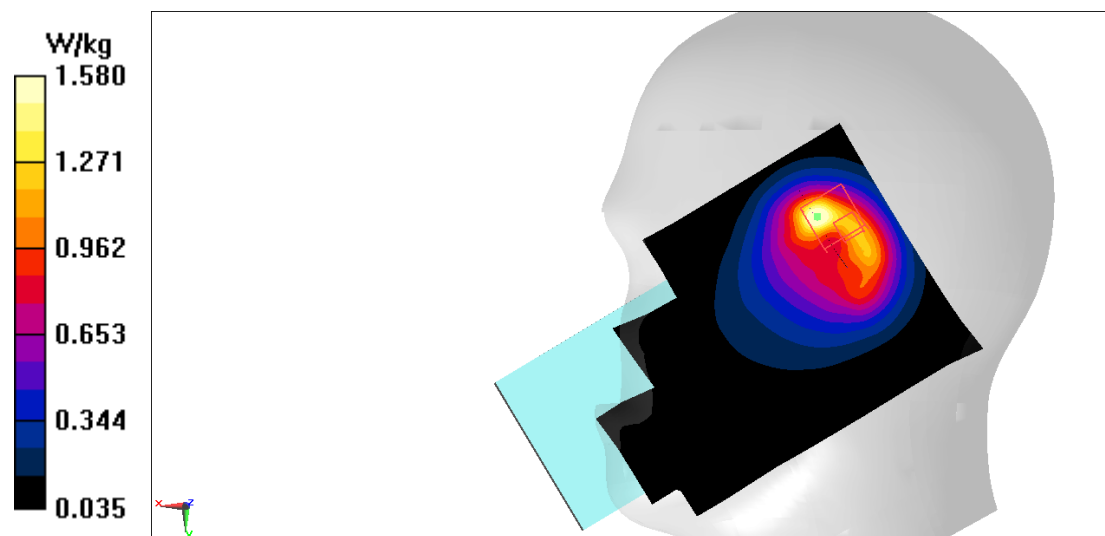


Fig A.41

**5G n71\_CH136100 Rear 10mm**

Date: 11/20/2021

Electronics: DAE4 Sn1331

Medium: head 750 MHz

Medium parameters used:  $f = 680.5$  MHz;  $\sigma = 0.781$  S/m;  $\epsilon_r = 46.103$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: 5G n71 680.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7548 ConvF(10.36,10.36,10.36)

**Area Scan (71x141x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.805 W/kg

**Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 18.45 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 1.11 W/kg

**SAR(1 g) = 0.577 W/kg; SAR(10 g) = 0.328 W/kg**

Maximum value of SAR (measured) = 0.894 W/kg

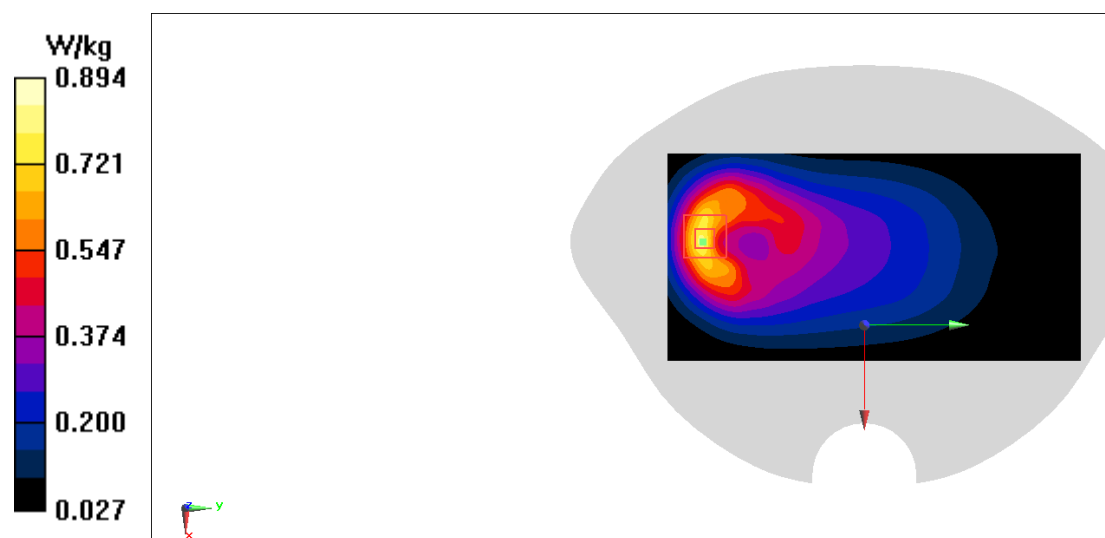


Fig A.42

**5G n77\_CH650800 Left Cheek**

Date: 12/3/2021

Electronics: DAE4 Sn1331

Medium: head 3700 MHz

Medium parameters used:  $f = 3762$  MHz;  $\sigma = 3.125$  S/m;  $\epsilon_r = 37.749$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: 5G n77 3762 MHz Duty Cycle: 1:2

Probe: EX3DV4 – SN7548 ConvF(6.42,6.42,6.42)

**Area Scan (121x211x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.35 W/kg

**Zoom Scan (8x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 6.549 V/m; Power Drift = 0.20 dB

Peak SAR (extrapolated) = 1.91 W/kg

**SAR(1 g) = 0.650 W/kg; SAR(10 g) = 0.234 W/kg**

Maximum value of SAR (measured) = 1.38 W/kg

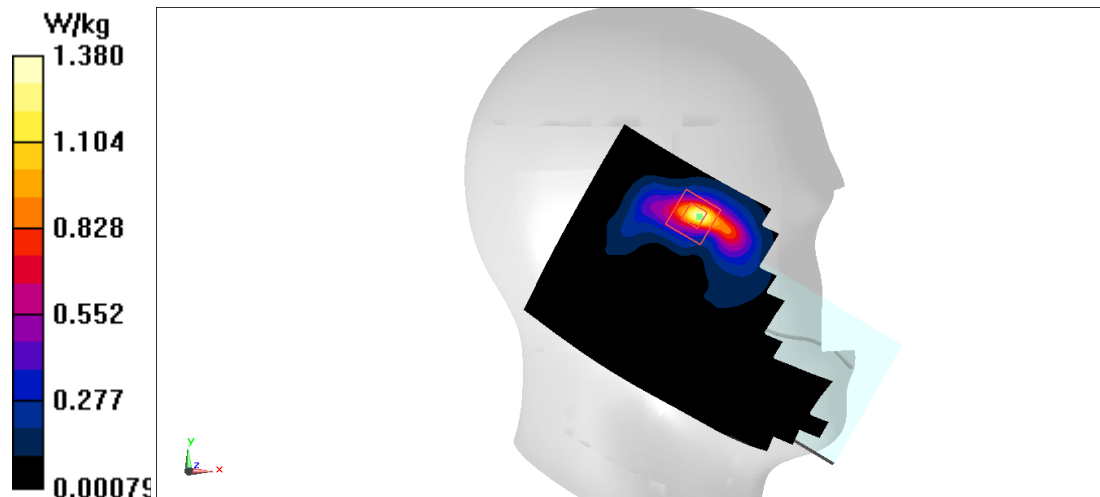


Fig A.43

**5G n77\_CH650800 Rear 10mm**

Date: 12/3/2021

Electronics: DAE4 Sn1331

Medium: head 3700 MHz

Medium parameters used:  $f = 3762$  MHz;  $\sigma = 3.125$  S/m;  $\epsilon_r = 37.749$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: 5G n77 3762 MHz Duty Cycle: 1:2

Probe: EX3DV4 – SN7548 ConvF(6.42,6.42,6.42)

**Area Scan (61x211x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.19 W/kg

**Zoom Scan (8x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 6.072 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 1.72 W/kg

**SAR(1 g) = 0.636 W/kg; SAR(10 g) = 0.255 W/kg**

Maximum value of SAR (measured) = 1.21 W/kg

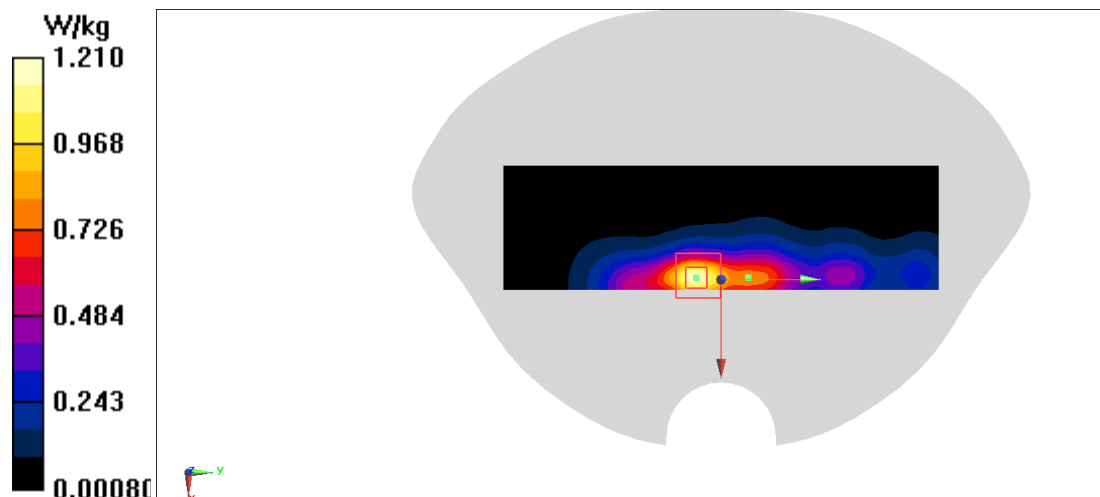


Fig A.44



**WLAN2450\_CH1 Left Cheek**

Date: 11/27/2021

Electronics: DAE4 Sn1331

Medium: head 2450 MHz

Medium parameters used:  $f = 2412$  MHz;  $\sigma = 1.873$  S/m;  $\epsilon_r = 40.576$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: WLAN2450 2412 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7548 ConvF(7.35,7.35,7.35)

**Area Scan (101x171x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 1.43 W/kg

**Zoom Scan (7x10x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 7.687 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 1.61 W/kg

**SAR(1 g) = 0.849 W/kg; SAR(10 g) = 0.465 W/kg**

Maximum value of SAR (measured) = 1.32 W/kg

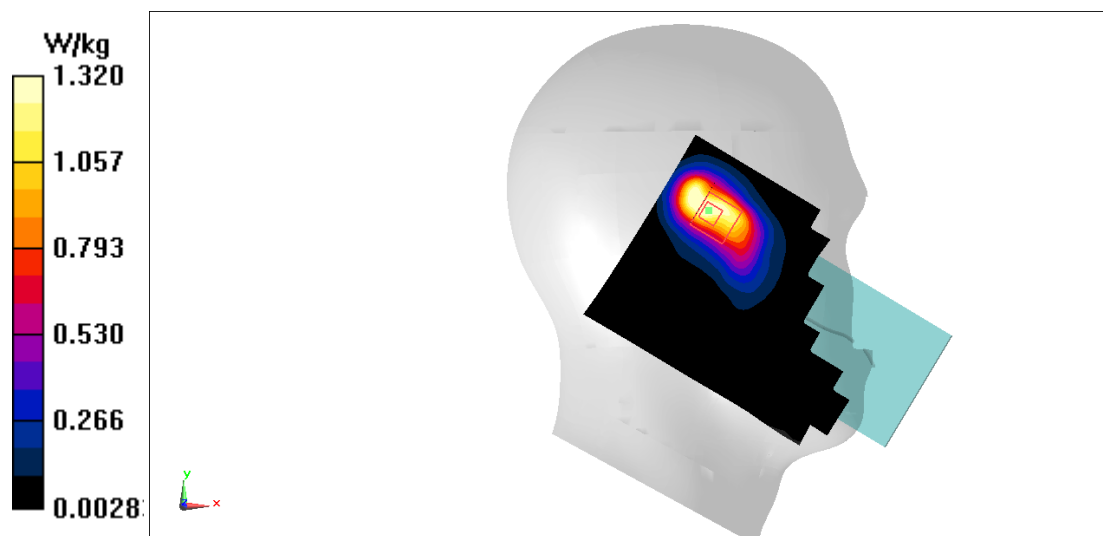


Fig A.45

**WLAN2450\_CH1 Right 10mm**

Date: 11/27/2021

Electronics: DAE4 Sn1331

Medium: head 2450 MHz

Medium parameters used:  $f = 2412$  MHz;  $\sigma = 1.873$  S/m;  $\epsilon_r = 40.576$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: WLAN2450 2412 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7548 ConvF(7.35,7.35,7.35)

**Area Scan (101x171x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 0.806 W/kg

**Zoom Scan (7x7x5)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 14.82 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 1.02 W/kg

**SAR(1 g) = 0.517 W/kg; SAR(10 g) = 0.254 W/kg**

Maximum value of SAR (measured) = 0.829 W/kg

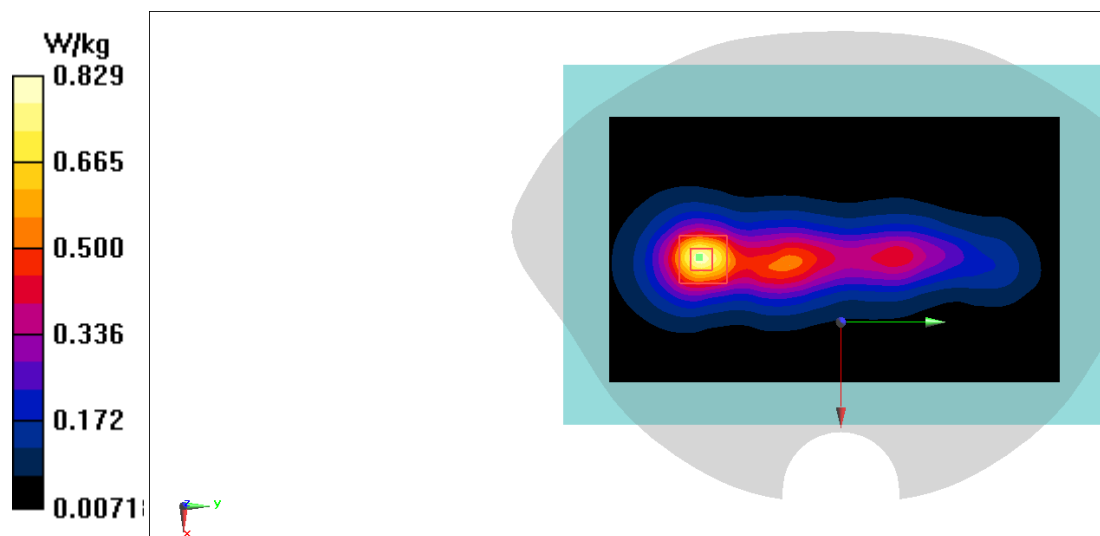


Fig A.46

**WLAN5G\_CH64 Right Cheek**

Date: 11/30/2021

Electronics: DAE4 Sn1331

Medium: head 5GHz

Medium parameters used:  $f = 5320$  MHz;  $\sigma = 4.748$  S/m;  $\epsilon_r = 34.775$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: WLAN5G 5320 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7548 ConvF(5.05,5.05,5.05)

**Area Scan (121x211x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.957 W/kg

**Configuration/WLAN5G Head Left Cheek 11a 6M 15.5db/Zoom Scan****(9x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 10.16 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 4.02 W/kg

**SAR(1 g) = 0.866 W/kg; SAR(10 g) = 0.282 W/kg**

Maximum value of SAR (measured) = 2.16 W/kg

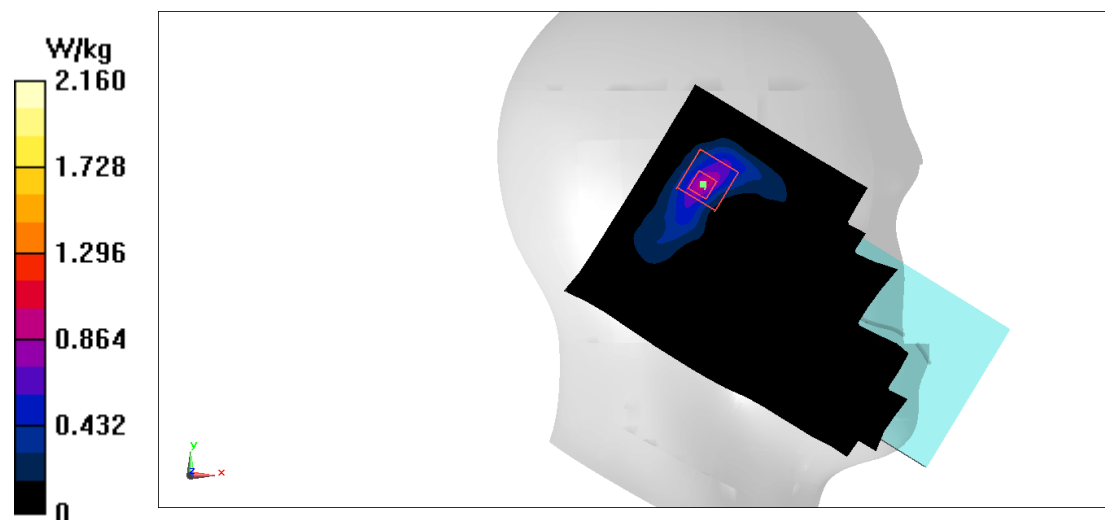


Fig A.47

**WLAN5G\_CH144 Rear 10mm**

Date: 12/2/2021

Electronics: DAE4 Sn1331

Medium: head 5GHz

Medium parameters used:  $f = 5720$  MHz;  $\sigma = 5.266$  S/m;  $\epsilon_r = 33.822$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: WLAN5G 5720 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7548 ConvF(4.73,4.73,4.73)

**Area Scan (61x151x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 2.98 W/kg

**Zoom Scan (8x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 24.63 V/m; Power Drift = -0.19 dB

Peak SAR (extrapolated) = 4.81 W/kg

**SAR(1 g) = 1.24 W/kg; SAR(10 g) = 0.444 W/kg**

Maximum value of SAR (measured) = 2.83 W/kg

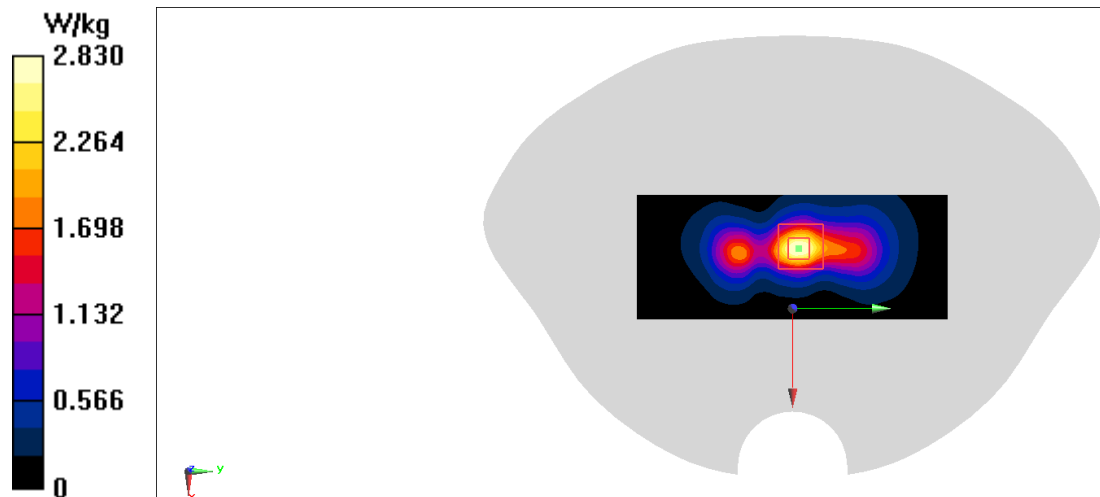


Fig A.48

**WLAN5G\_CH144 Top 0mm for extremity SAR**

Date: 12/2/2021

Electronics: DAE4 Sn1331

Medium: head 5GHz

Medium parameters used:  $f = 5720$  MHz;  $\sigma = 5.266$  S/m;  $\epsilon_r = 33.822$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature: 22.9°C, Liquid Temperature: 22.5°C

Communication System: WLAN5G 5720 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7548 ConvF(4.73,4.73,4.73)

**Configuration/WLAN5G Body Top 0mm 11a-6M 18db/Area Scan (61x151x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 17.0 W/kg

**Configuration/WLAN5G Body Top 0mm 11a-6M 18db/Zoom Scan (8x8x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 5.243 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 55.6 W/kg

**SAR(1 g) = 7.46 W/kg; SAR(10 g) = 1.73 W/kg**

Maximum value of SAR (measured) = 24.8 W/kg

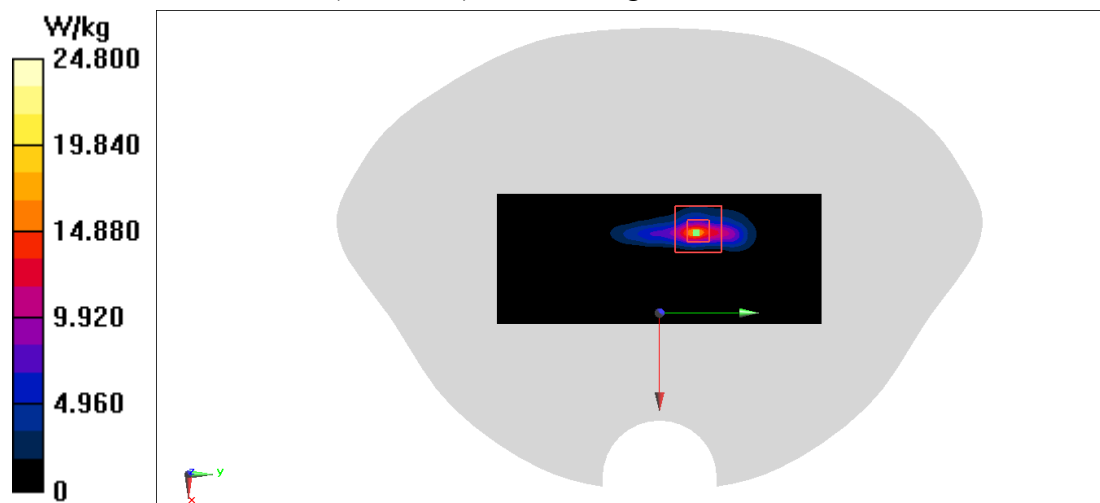
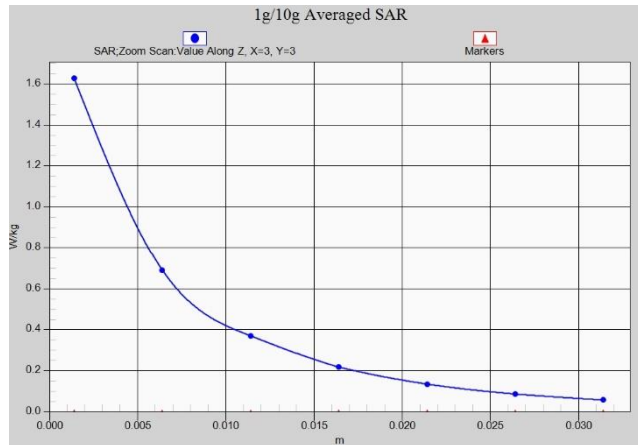
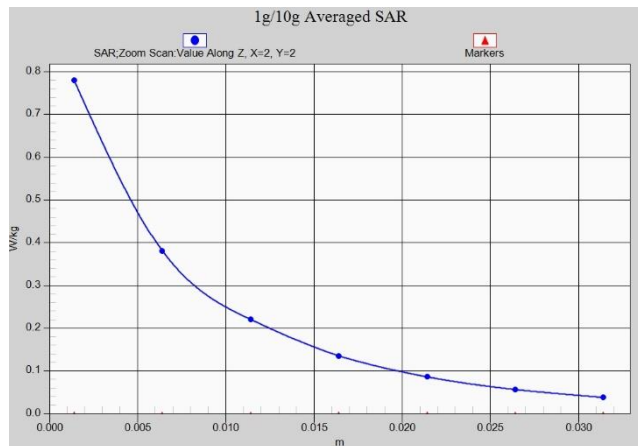


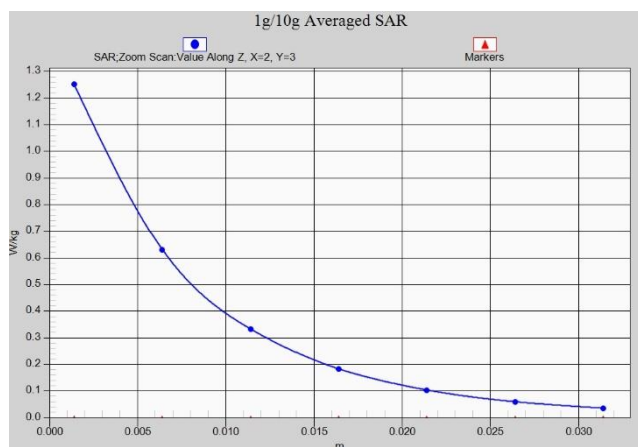
Fig A.49



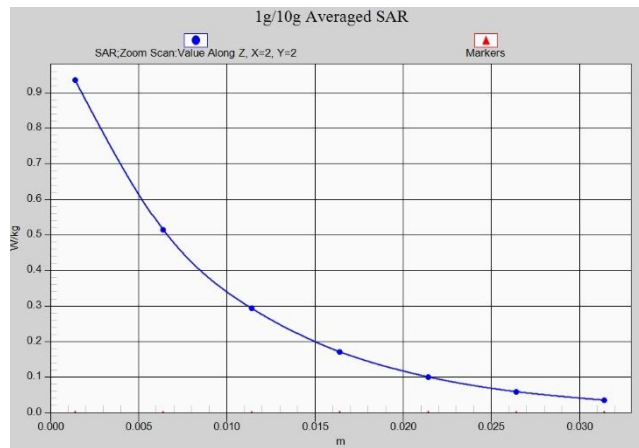
**Z-Scan at power reference point (850 MHz)**



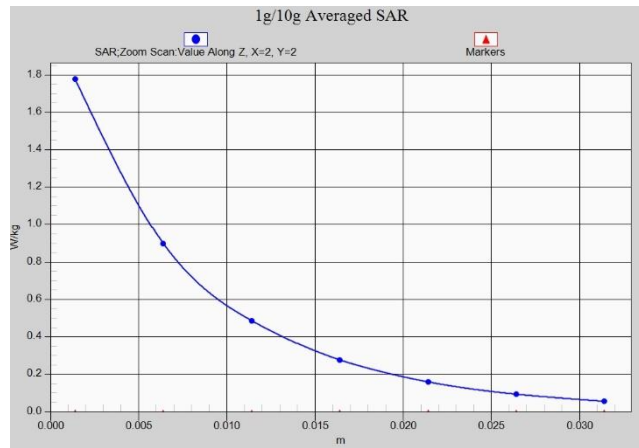
**Z-Scan at power reference point (850 MHz)**



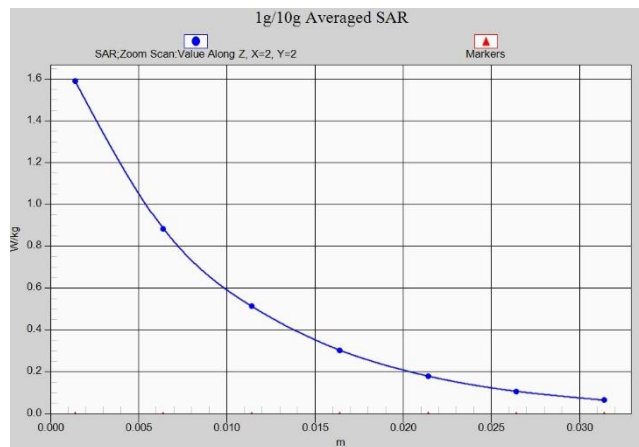
**Z-Scan at power reference point (1900 MHz)**



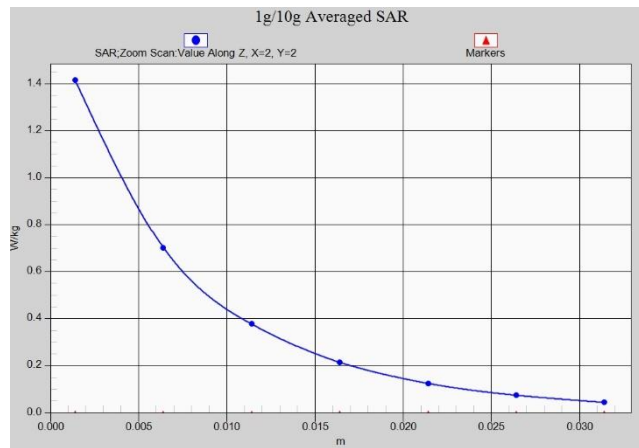
**Z-Scan at power reference point (GSM1900)**



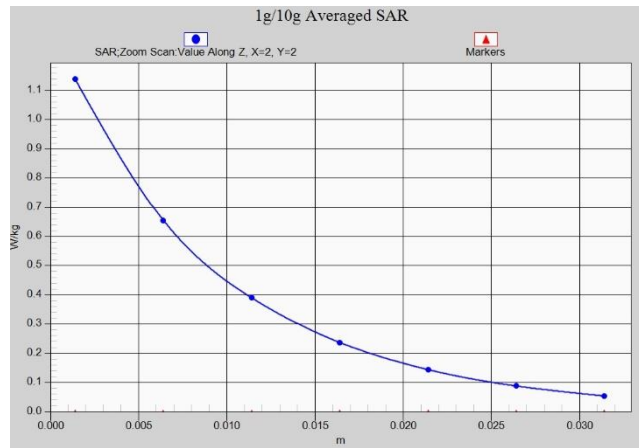
**Z-Scan at power reference point (WCDMA1900)**



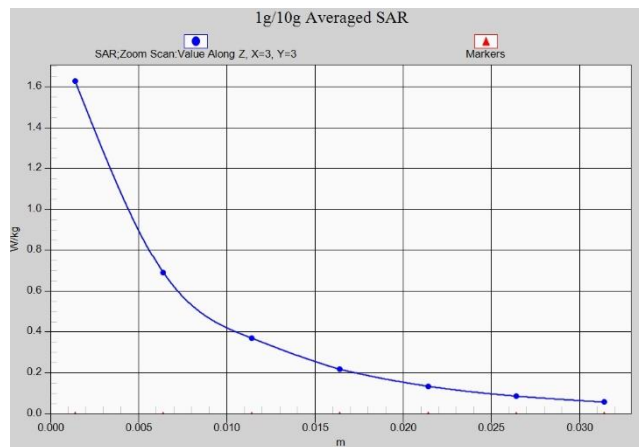
**Z-Scan at power reference point (WCDMA1900)**



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

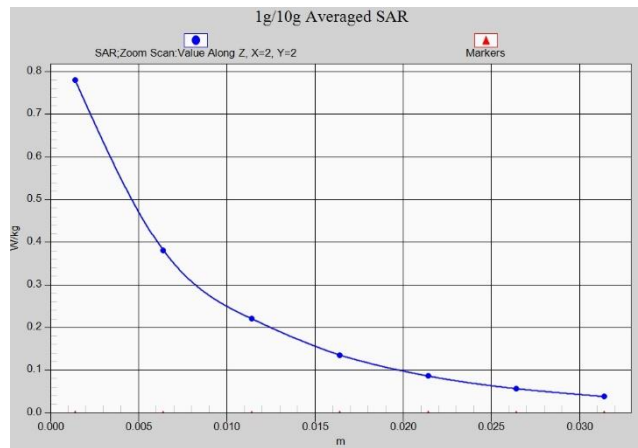


**Z-Scan at power reference point (WCDMA1700)**

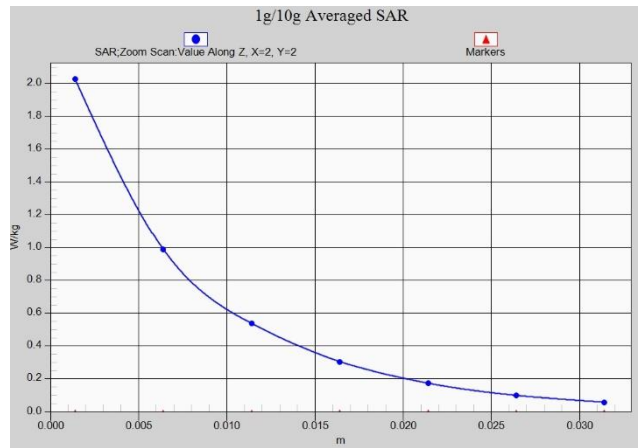


**Z-Scan at power reference point (WCDMA850)**

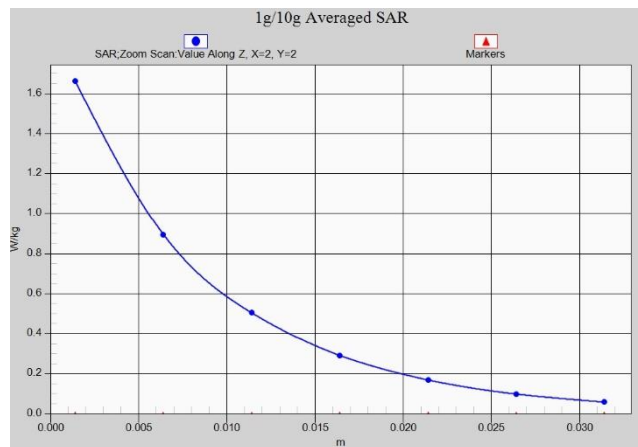




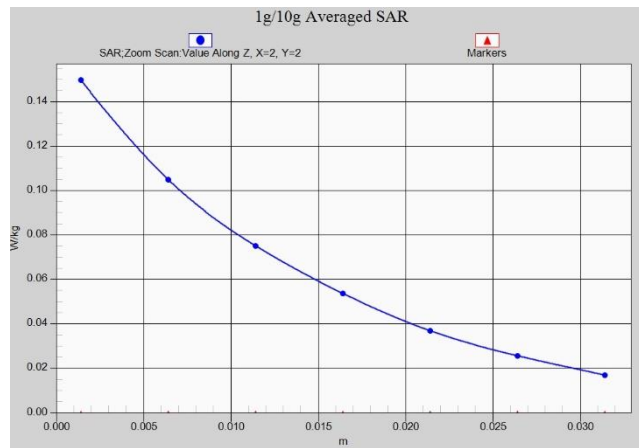
**Z-Scan at power reference point (WCDMA850)**



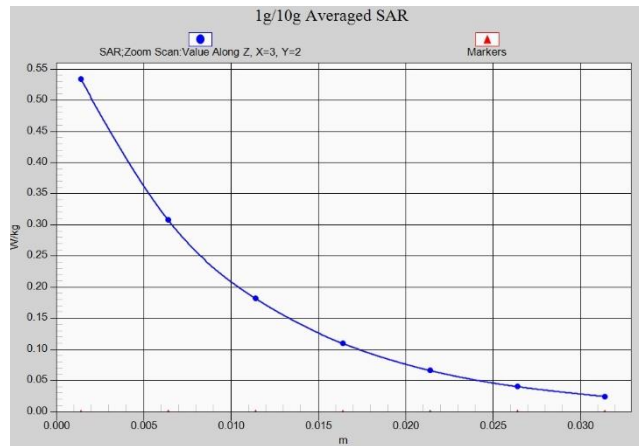
**Z-Scan at power reference point (LTE B2-ANT2)**



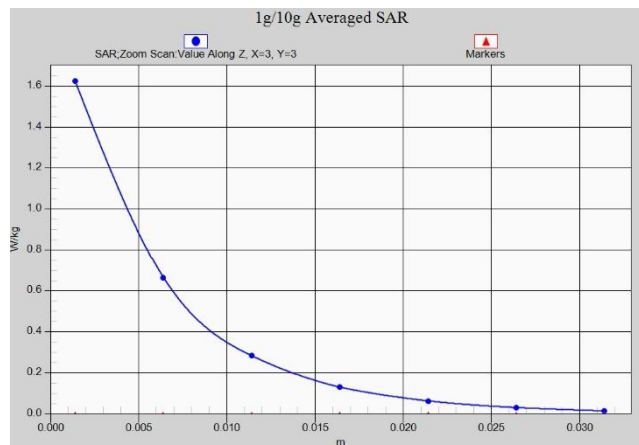
**Z-Scan at power reference point (LTE B2-ANT2)**



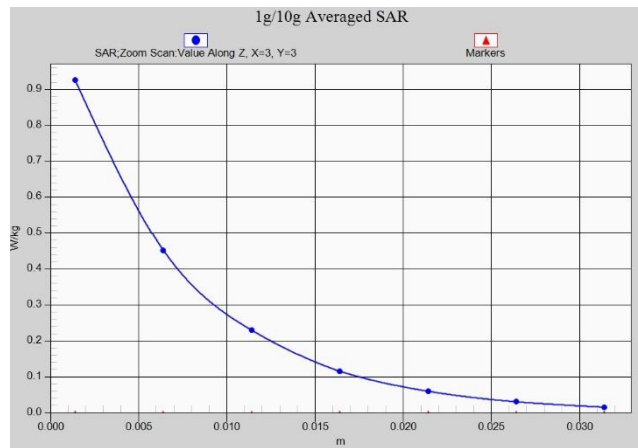
**Z-Scan at power reference point (LTE B2-ANT1)**



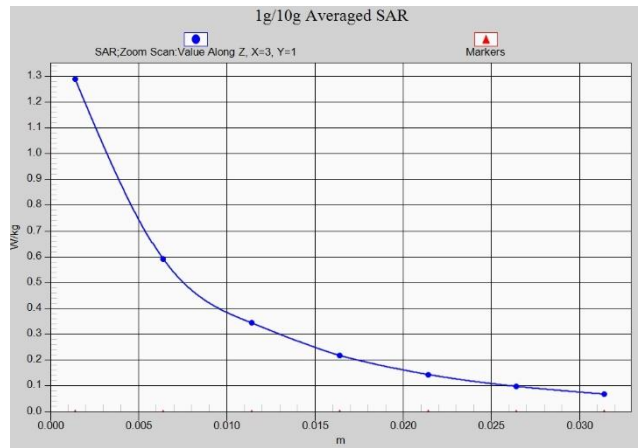
**Z-Scan at power reference point (LTE B2-ANT1)**



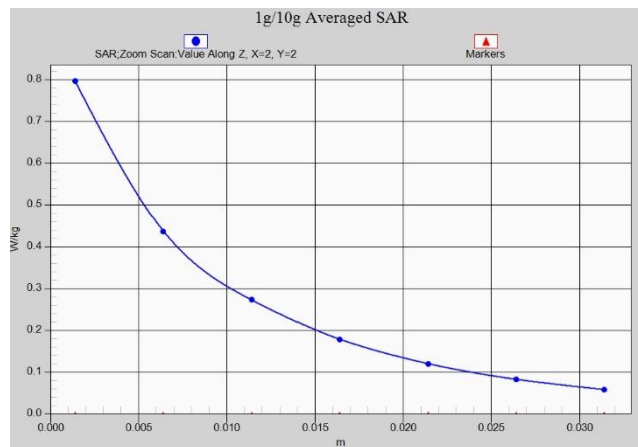
**Z-Scan at power reference point (LTE B7)**



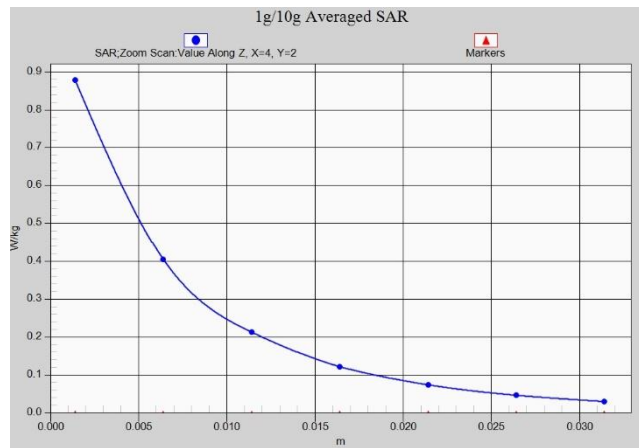
**Z-Scan at power reference point (LTE B7)**



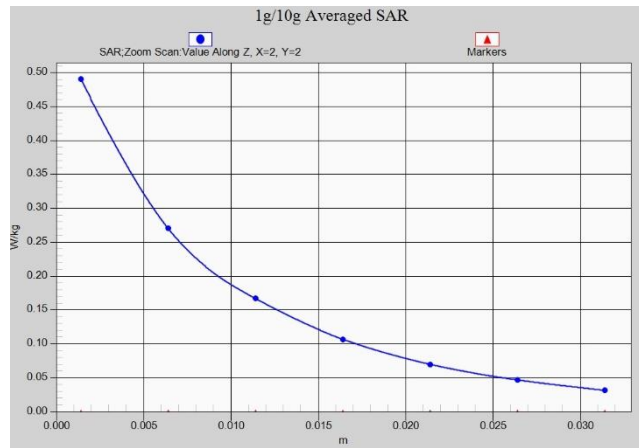
**Z-Scan at power reference point (LTE B12)**



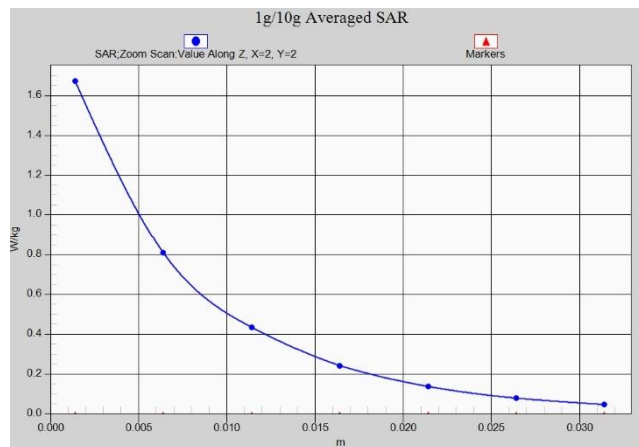
**Z-Scan at power reference point (LTE B12)**



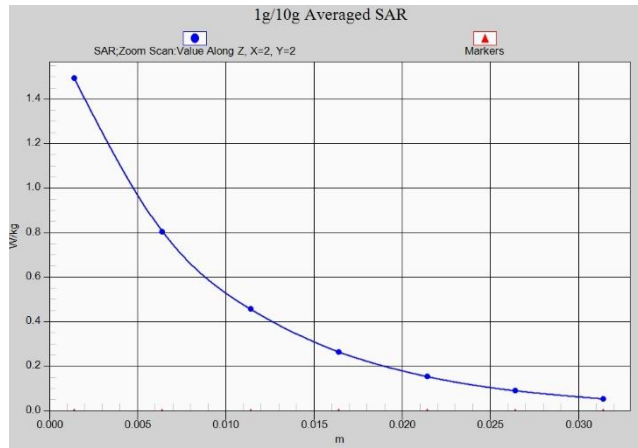
**Z-Scan at power reference point (LTE B13)**



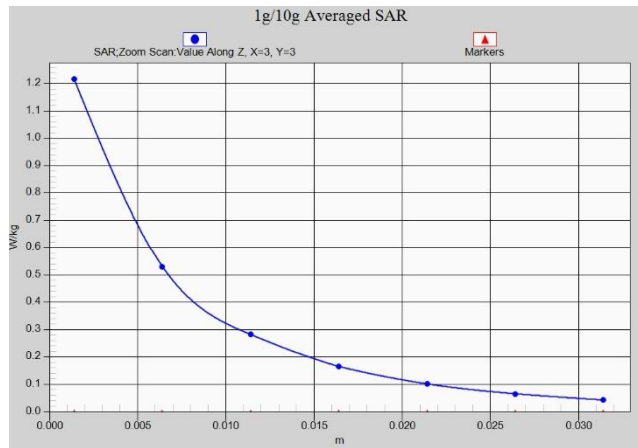
**Z-Scan at power reference point (LTE B13)**



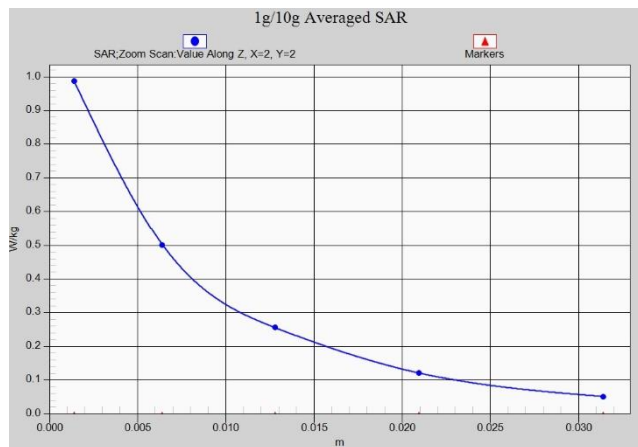
**Z-Scan at power reference point (LTE B25)**



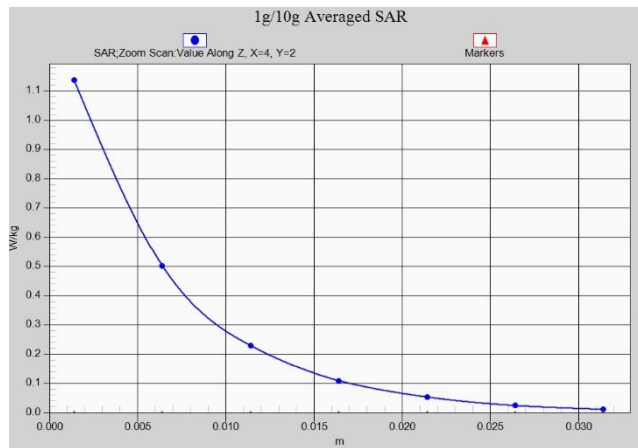
**Z-Scan at power reference point (LTE B25)**



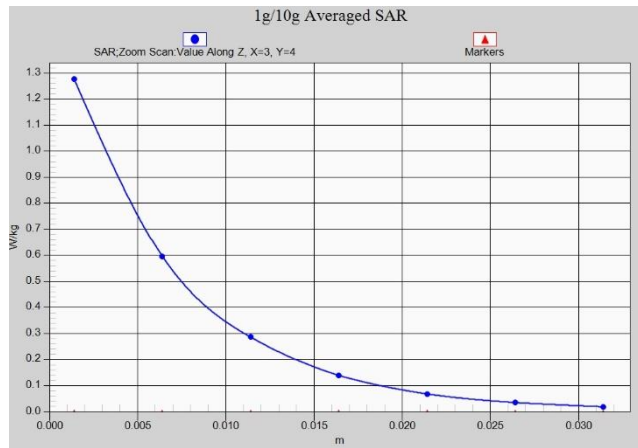
**Z-Scan at power reference point (LTE B26)**



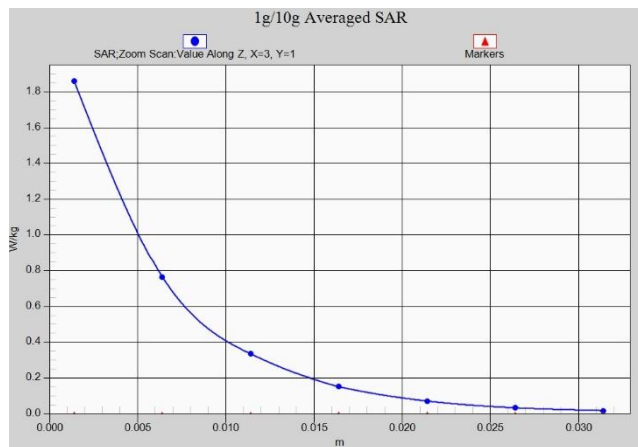
**Z-Scan at power reference point (LTE B26)**



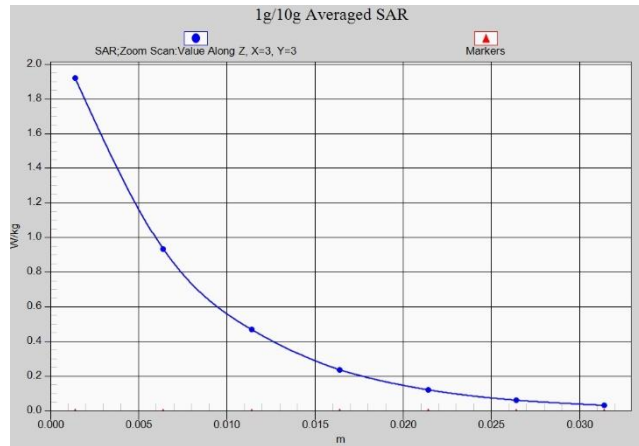
**Z-Scan at power reference point (LTE B41-PC3)**



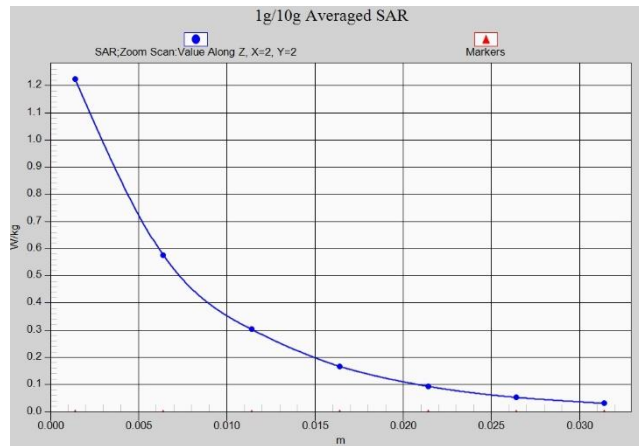
**Z-Scan at power reference point (LTE B41-PC3)**



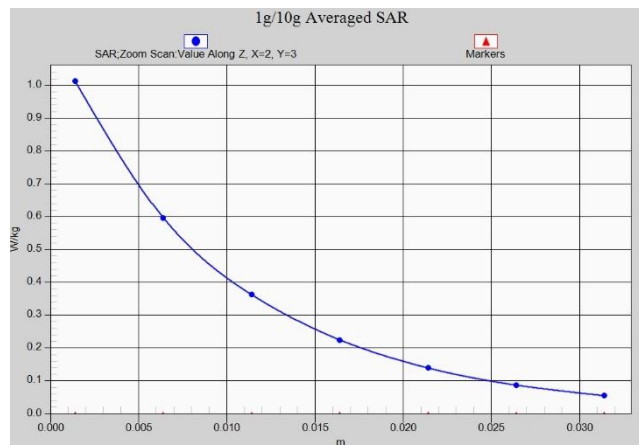
**Z-Scan at power reference point (LTE B41-PC2)**



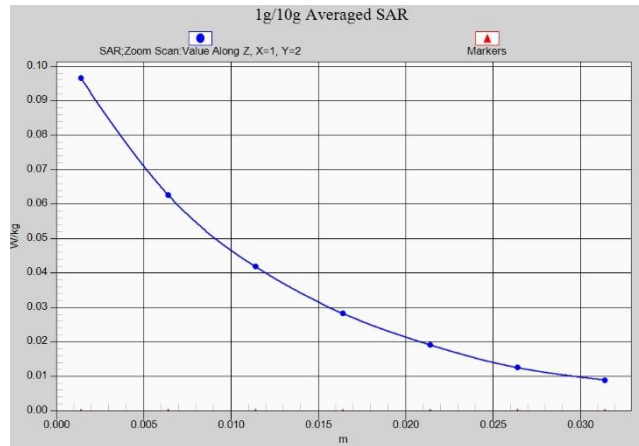
**Z-Scan at power reference point (LTE B41-PC2)**



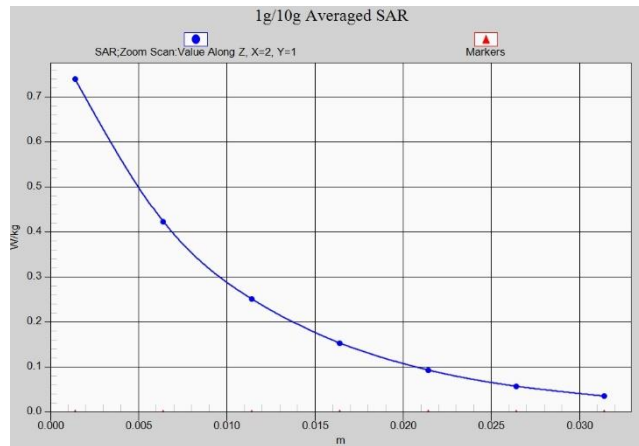
**Z-Scan at power reference point (LTE B66-ANT2)**



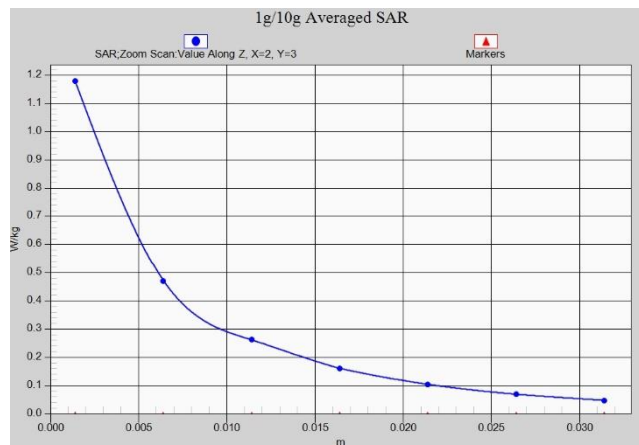
**Z-Scan at power reference point (LTE B66-ANT2)**



**Z-Scan at power reference point (LTE B66-ANT1)**

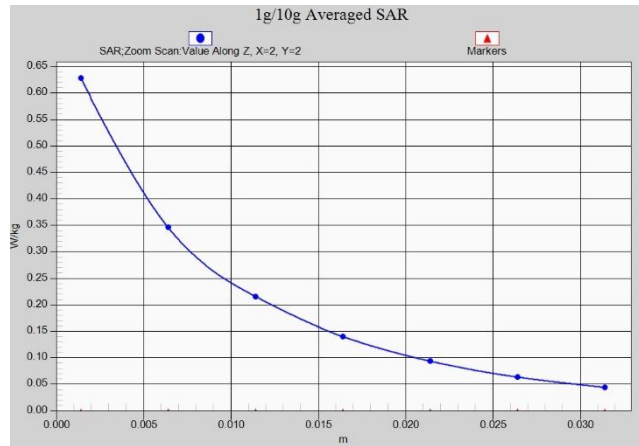


**Z-Scan at power reference point (LTE B66-ANT1)**

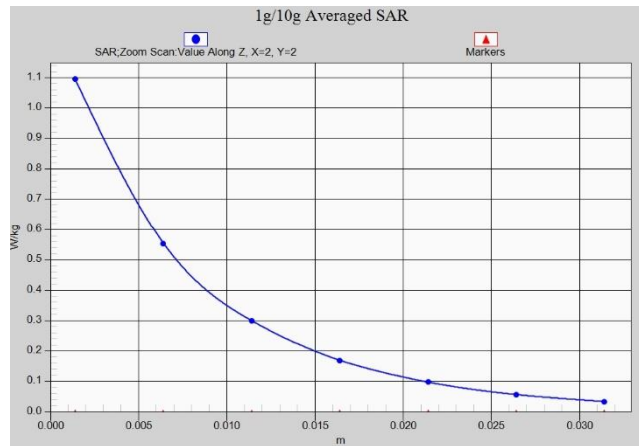


**Z-Scan at power reference point (LTE B71)**

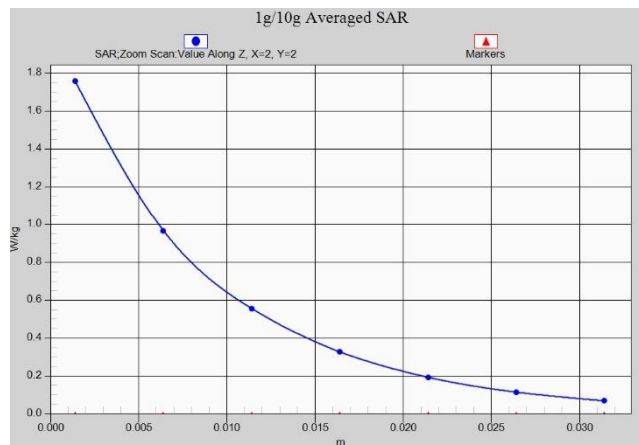




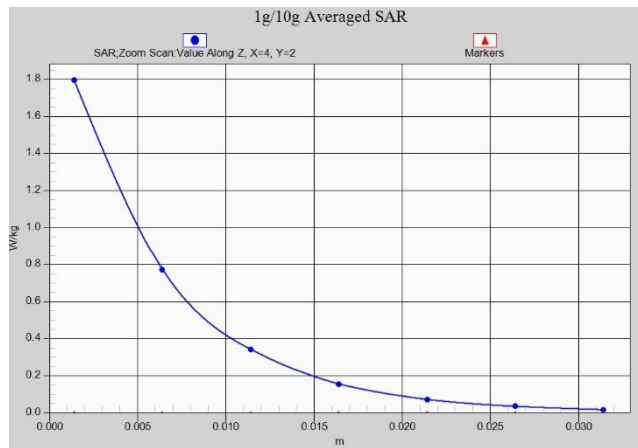
**Z-Scan at power reference point (LTE B71)**



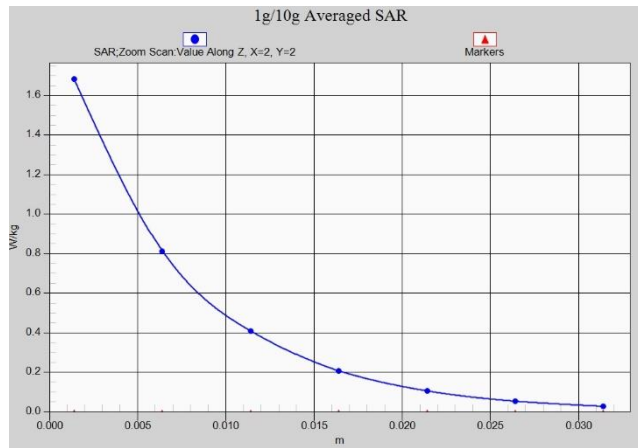
**Z-Scan at power reference point (n25)**



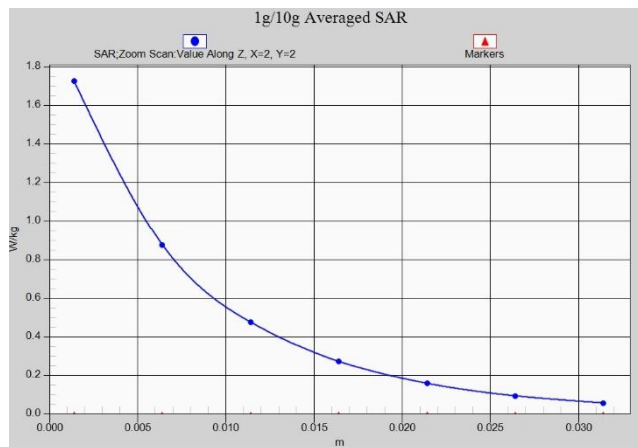
**Z-Scan at power reference point (n25)**



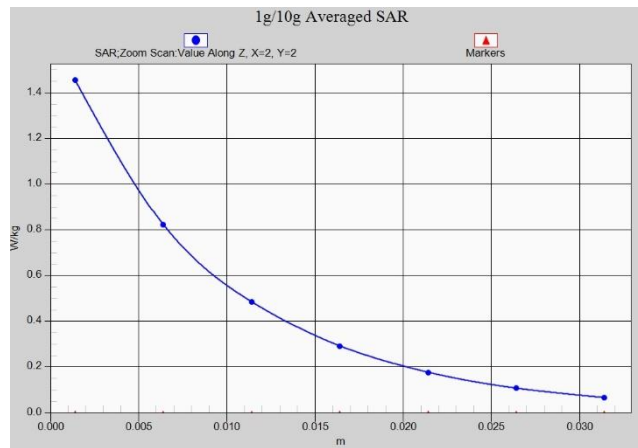
**Z-Scan at power reference point (n41)**



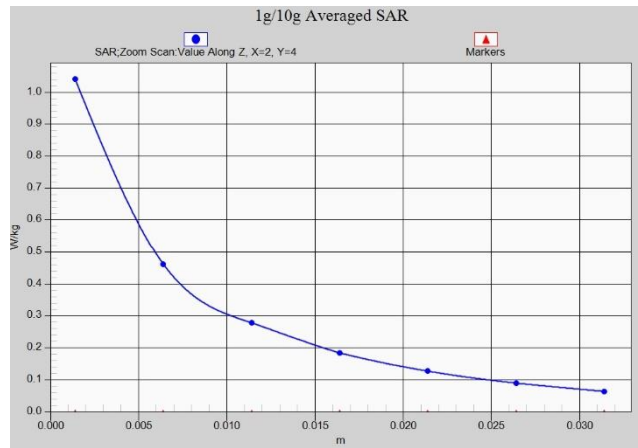
**Z-Scan at power reference point (n41)**



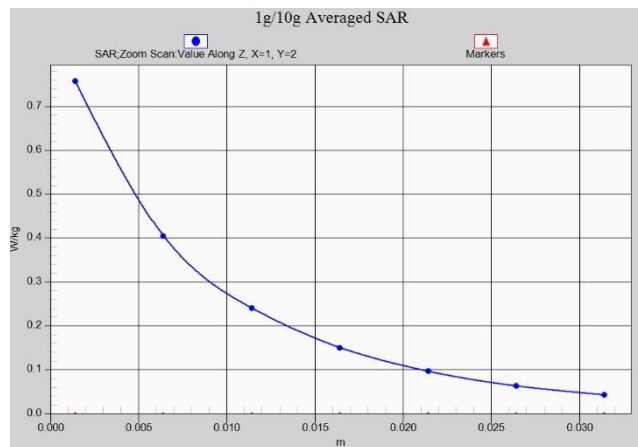
**Z-Scan at power reference point (n66)**



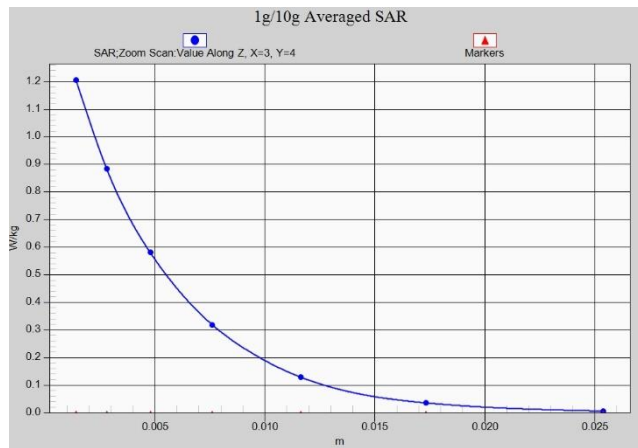
**Z-Scan at power reference point (n66)**



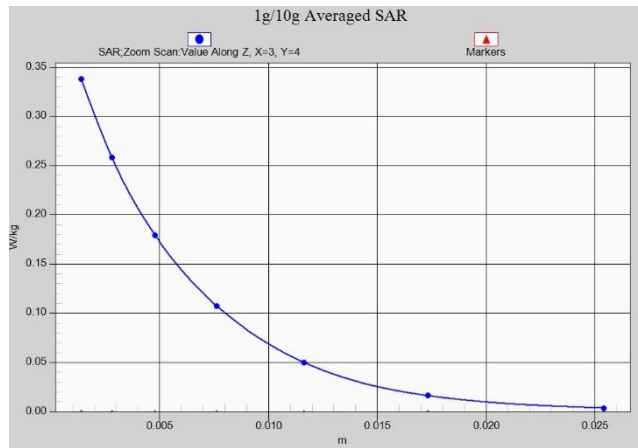
**Z-Scan at power reference point (n71)**



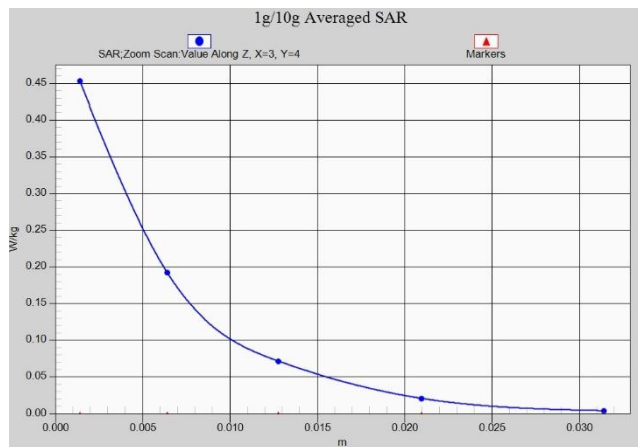
**Z-Scan at power reference point (n71)**



**Z-Scan at power reference point (n77)**



**Z-Scan at power reference point (n77)**



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