

# FCC SAR Test Report

**Report No.** : SA191009C01  
**Applicant** : Dell Inc.  
**Address** : One Dell Way, Round Rock, Texas 78682, USA  
**Product** : Tablet PC  
**FCC ID** : MCLT77W968-D3  
**Brand** : DELL  
**Model No.** : T03H, T03H004 (Refer to section 2 for more details)  
**Standards** : FCC 47 CFR Part 2 (2.1093), IEEE C95.1:1992, IEEE Std 1528:2013  
 KDB 865664 D01 v01r04, KDB 865664 D02 v01r02  
 KDB 248227 D01 v02r02, KDB 447498 D01 v06, KDB 616217 D04 v01r02  
 KDB 941225 D01 v03r01, KDB 941225 D05 v02r05  
**Sample Received Date** : Oct. 09, 2019  
**Date of Testing** : Oct. 26, 2019 ~ Nov. 01, 2019  
**Lab Address** : No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan, R.O.C.  
**Test Location** : No. 19, Hwa Ya 2nd Rd, Wen Hwa Vil, Kwei Shan Dist., Taoyuan City 33383, Taiwan (R.O.C)

**CERTIFICATION:** The above equipment have been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch–Lin Kou Laboratories**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample’s SAR characteristics under the conditions specified in this report. It should not be reproduced except in full, without the written approval of our laboratory. The client should not use it to claim product certification, approval, or endorsement by TAF or any government agencies.

**Prepared By :** Gina Liu  
 Gina Liu / Specialist  
**Approved By :** Gordon Lin  
 Gordon Lin / Manager



FCC Accredited No.: TW0003

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## Release Control Record

Report No.	Reason for Change	Date Issued
SA191009C01	Initial release	Nov. 13, 2019

### 1. Summary of Maximum SAR Value

Equipment Class	Mode	Highest SAR-1g Body (W/kg)
		T77W968
PCB	WCDMA II	0.78
	WCDMA IV	1.16
	WCDMA V	0.89
	LTE 5	0.68
	LTE 7	0.95
	LTE 12 / LTE 17	0.83
	LTE 13	0.92
	LTE 14	0.90
	LTE 2 / LTE 25	0.69
	LTE 26	0.78
	LTE 30	0.75
	LTE 38 / LTE 41	0.49
	LTE 4 / LTE 66	0.84
		AX200NGW
DTS	2.4G WLAN	0.22
NII	5.3G WLAN	0.28
	5.6G WLAN	0.26
	5.8G WLAN	0.22
DSS	Bluetooth	0.09
DXX	NFC	N/A

Highest Simultaneous Transmission SAR	Highest SAR-1g Body (W/kg)
	1.44

**Note:**

1. The SAR criteria (**Head & Body: SAR-1g 1.6 W/kg, and Extremity: SAR-10g 4.0 W/kg**) for general population/uncontrolled exposure is specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-1992.
2. This device supports both LTE band 12 and band 17. The frequency span of LTE band 12 can completely cover LTE band 17, and they has the same tune-up power. SAR was tested for LTE band 12 only.
3. This device supports both LTE band 66 and band 4. The frequency span of LTE band 66 can completely cover LTE band 4, and they has the same tune-up power. SAR was tested for LTE band 66 only.
4. This device supports both LTE band 25 and band 2. The frequency span of LTE band 25 can completely cover LTE band 2, and they has the same tune-up power. SAR was tested for LTE band 25 only.
5. This device supports both LTE band 41 and band 38. The frequency span of LTE band 41 can completely cover LTE band 38, and they has the same tune-up power. SAR was tested for LTE band 41 only.

## 2. Description of Equipment Under Test

<b>EUT Type</b>	Tablet PC																																																						
<b>FCC ID</b>	MCLT77W968-D3																																																						
<b>Brand Name</b>	DELL																																																						
<b>Model Name</b>	T03H, T03H004																																																						
<b>Tx Frequency Bands (Unit: MHz)</b>	WCDMA Band II : 1852.4 ~ 1907.6 WCDMA Band IV : 1712.4 ~ 1752.6 WCDMA Band V : 826.4 ~ 846.6 LTE Band 2 : 1850.7 ~ 1909.3 (BW: 1.4M, 3M, 5M, 10M, 15M, 20M) LTE Band 4 : 1710.7 ~ 1754.3 (BW: 1.4M, 3M, 5M, 10M, 15M, 20M) LTE Band 5 : 824.7 ~ 848.3 (BW: 1.4M, 3M, 5M, 10M) LTE Band 7 : 2502.5 ~ 2567.5 (BW: 5M, 10M, 15M, 20M) LTE Band 12 : 699.7 ~ 715.3 (BW: 1.4M, 3M, 5M, 10M) LTE Band 13 : 779.5 ~ 784.5 (BW: 5M, 10M) LTE Band 14 : 790.5 ~ 795.5 (BW: 5M, 10M) LTE Band 17 : 706.5 ~ 713.5 (BW: 5M, 10M) LTE Band 25 : 1850.7 ~ 1914.3 (BW: 1.4M, 3M, 5M, 10M, 15M, 20M) LTE Band 26 : 814.7 ~ 848.3 (BW: 1.4M, 3M, 5M, 10M, 15M) LTE Band 30 : 2307.5 ~ 2312.5 (BW: 5M, 10M) LTE Band 38 : 2572.5 ~ 2617.5 (BW: 5M, 10M, 15M, 20M) LTE Band 41 : 2498.5 ~ 2687.5 (BW: 5M, 10M, 15M, 20M) LTE Band 66 : 1710.7 ~ 1779.3 (BW: 1.4M, 3M, 5M, 10M, 15M, 20M) WLAN : 2412 ~ 2462, 5180 ~ 5240, 5260 ~ 5320, 5500 ~ 5720, 5745 ~ 5825 Bluetooth : 2402 ~ 2480 NFC : 13.56																																																						
<b>Uplink Modulations</b>	WCDMA : QPSK LTE : QPSK, 16QAM, 64QAM 802.11b : DSSS 802.11a/g/n/ac : OFDM 802.11ax : OFDMA Bluetooth : GFSK, $\pi/4$ -DQPSK, 8-DPSK NFC : ASK																																																						
<b>LTE MPR permanently built-in by design</b>	<table border="1"> <thead> <tr> <th rowspan="2">Modulation</th> <th colspan="6">Channel Bandwidth / RB Configurations</th> <th rowspan="2">LTE MPR Setting (dB)</th> </tr> <tr> <th>BW 1.4 MHz</th> <th>BW 3 MHz</th> <th>BW 5 MHz</th> <th>BW 10 MHz</th> <th>BW 15 MHz</th> <th>BW 20 MHz</th> </tr> </thead> <tbody> <tr> <td>QPSK</td> <td>&gt; 5<sup>dB</sup></td> <td>&gt; 4<sup>dB</sup></td> <td>&gt; 8<sup>dB</sup></td> <td>&gt; 12<sup>dB</sup></td> <td>&gt; 16<sup>dB</sup></td> <td>&gt; 18<sup>dB</sup></td> <td>1<sup>dB</sup></td> </tr> <tr> <td>16QAM</td> <td>&lt;= 5<sup>dB</sup></td> <td>&lt;= 4<sup>dB</sup></td> <td>&lt;= 8<sup>dB</sup></td> <td>&lt;= 12<sup>dB</sup></td> <td>&lt;= 16<sup>dB</sup></td> <td>&lt;= 18<sup>dB</sup></td> <td>1<sup>dB</sup></td> </tr> <tr> <td>16QAM</td> <td>&gt; 5<sup>dB</sup></td> <td>&gt; 4<sup>dB</sup></td> <td>&gt; 8<sup>dB</sup></td> <td>&gt; 12<sup>dB</sup></td> <td>&gt; 16<sup>dB</sup></td> <td>&gt; 18<sup>dB</sup></td> <td>2<sup>dB</sup></td> </tr> <tr> <td>64QAM</td> <td>&lt;= 5<sup>dB</sup></td> <td>&lt;= 4<sup>dB</sup></td> <td>&lt;= 8<sup>dB</sup></td> <td>&lt;= 12<sup>dB</sup></td> <td>&lt;= 16<sup>dB</sup></td> <td>&lt;= 18<sup>dB</sup></td> <td>2<sup>dB</sup></td> </tr> <tr> <td>64QAM</td> <td>&gt; 5<sup>dB</sup></td> <td>&gt; 4<sup>dB</sup></td> <td>&gt; 8<sup>dB</sup></td> <td>&gt; 12<sup>dB</sup></td> <td>&gt; 16<sup>dB</sup></td> <td>&gt; 18<sup>dB</sup></td> <td>3<sup>dB</sup></td> </tr> </tbody> </table> <p>Note: MPR is according to the standard and implemented in the circuit (mandatory).<sup>1)</sup></p>	Modulation	Channel Bandwidth / RB Configurations						LTE MPR Setting (dB)	BW 1.4 MHz	BW 3 MHz	BW 5 MHz	BW 10 MHz	BW 15 MHz	BW 20 MHz	QPSK	> 5 <sup>dB</sup>	> 4 <sup>dB</sup>	> 8 <sup>dB</sup>	> 12 <sup>dB</sup>	> 16 <sup>dB</sup>	> 18 <sup>dB</sup>	1 <sup>dB</sup>	16QAM	<= 5 <sup>dB</sup>	<= 4 <sup>dB</sup>	<= 8 <sup>dB</sup>	<= 12 <sup>dB</sup>	<= 16 <sup>dB</sup>	<= 18 <sup>dB</sup>	1 <sup>dB</sup>	16QAM	> 5 <sup>dB</sup>	> 4 <sup>dB</sup>	> 8 <sup>dB</sup>	> 12 <sup>dB</sup>	> 16 <sup>dB</sup>	> 18 <sup>dB</sup>	2 <sup>dB</sup>	64QAM	<= 5 <sup>dB</sup>	<= 4 <sup>dB</sup>	<= 8 <sup>dB</sup>	<= 12 <sup>dB</sup>	<= 16 <sup>dB</sup>	<= 18 <sup>dB</sup>	2 <sup>dB</sup>	64QAM	> 5 <sup>dB</sup>	> 4 <sup>dB</sup>	> 8 <sup>dB</sup>	> 12 <sup>dB</sup>	> 16 <sup>dB</sup>	> 18 <sup>dB</sup>	3 <sup>dB</sup>
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<b>The device operation</b>	Down power mode. LTE Band 7 doesn't support 3GPP MPR, other Bands support 3GPP MPR																																																						
<b>Maximum Tune-up Conducted Power (Unit: dBm)</b>	Please refer to section 4.6.1 of this report																																																						
<b>Antenna Type</b>	PIFA Antenna																																																						
<b>EUT Stage</b>	Engineering Sample																																																						

**Note:**

1. The models of EUT are listed as below.

Product	Brand Name	Model Name	Description
Tablet PC	DELL	T03H	Different models are for marketing purpose.
		T03H004	

2. The information of module collocated in this EUT is listed as below.

Item	Brand Name	Model Name	Specification
WWAN module	Foxconn	T77W968	WCDMA II, IV, V, LTE 2, 4, 5, 7, 12, 13, 14, 17, 25, 26, 30, 38, 41, 66
BT + WiFi module	Intel	AX200NGW	2T2R 802.11 a/b/g/n/ac/ax WLAN+ Bluetooth

3. The above EUT information is declared by manufacturer and for more detailed features description please refers to the manufacturer's specifications or User's Manual.

4. The test method in separation distance of SAR test (CH4.7.2) followed client's requirement.

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### List of Accessory:

Battery	<b>Brand Name</b>	DELL
	<b>Model Name</b>	J7HTX
	<b>Power Rating</b>	7.6 Vdc, 4342 mAh, 34 Wh
	<b>Type</b>	Li-ion

### **3. SAR Measurement System**

#### **3.1 Definition of Specific Absorption Rate (SAR)**

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.

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:

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

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

SAR measurement can be related to the electrical field in the tissue by

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

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

#### **3.2 SPEAG DASY6 System**

DASY6 system consists of high precision robot, probe alignment sensor, phantom, robot controller, controlled measurement server and near-field probe. The robot includes six axes that can move to the precision position of the DASY6 software defined. The DASY6 software can define the area that is detected by the probe. The robot is connected to controlled box. Controlled measurement server is connected to the controlled robot box. The DAE includes amplifier, signal multiplexing, AD converter, offset measurement and surface detection. It is connected to the Electro-optical coupler (ECO). The ECO performs the conversion from the optical into digital electric signal of the DAE and transfers data to the PC.

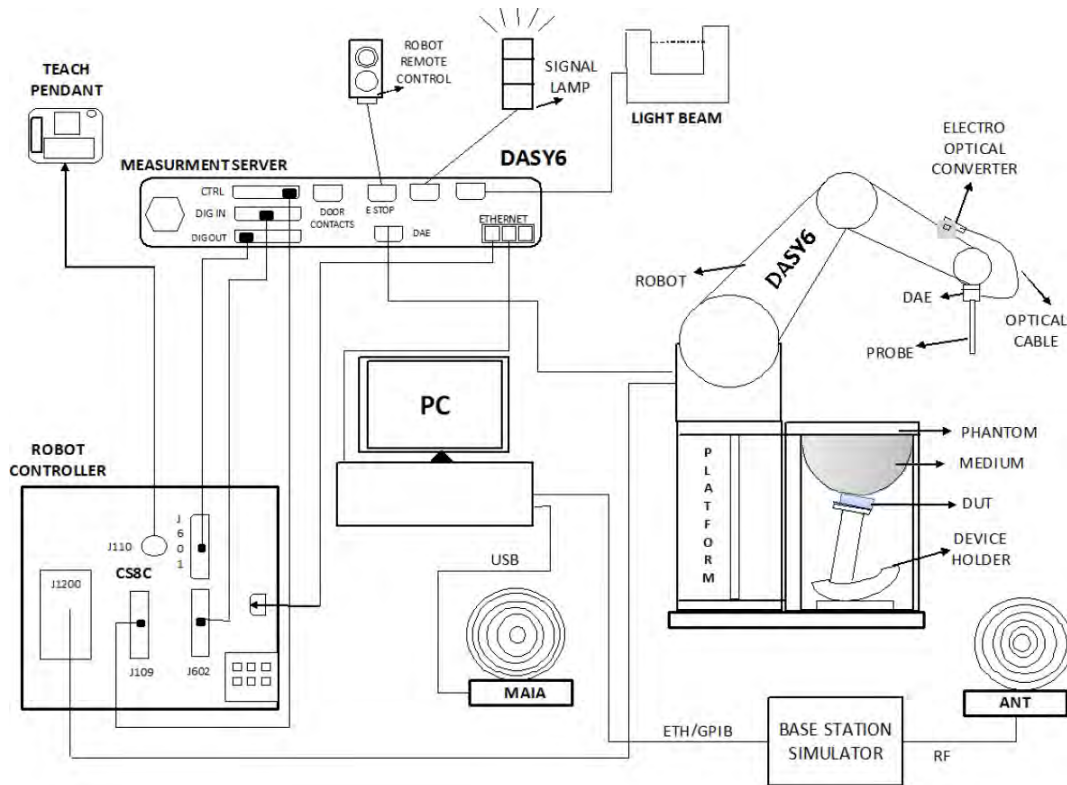


Fig-3.1 SPEAG DASY6 System Setup

### 3.2.1 Robot

The DASY6 systems use the high precision robots from Stäubli SA (France). For the 6-axis controller system, the robot controller version of CS8c from Stäubli is used. The Stäubli robot series have many features that are important for our application:

- High precision (repeatability  $\pm 0.035$  mm)
- High reliability (industrial design)
- Jerk-free straight movements
- Low ELF interference (the closed metallic construction shields against motor control fields)




Fig-3.2 SPEAG DASY6 System




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## 3.2.2 Probes


The SAR measurement is conducted with the dosimetric probe. The probe is specially designed and calibrated for use in liquid with high permittivity. The dosimetric probe has special calibration in liquid at different frequency.

<b>Model</b>	EX3DV4	
<b>Construction</b>	Symmetrical design with triangular core. Built-in shielding against static charges. PEEK enclosure material (resistant to organic solvents, e.g., DGBE).	
<b>Frequency</b>	4 MHz to 10 GHz Linearity: $\pm 0.2$ dB	
<b>Directivity</b>	$\pm 0.1$ dB in TSL (rotation around probe axis) $\pm 0.3$ dB in TSL (rotation normal to probe axis)	
<b>Dynamic Range</b>	10 $\mu$ W/g to 100 mW/g Linearity: $\pm 0.2$ dB (noise: typically $< 1$ $\mu$ W/g)	
<b>Dimensions</b>	Overall length: 337 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm	


## 3.2.3 Data Acquisition Electronics (DAE)

<b>Model</b>	DAE3, DAE4	
<b>Construction</b>	Signal amplifier, multiplexer, A/D converter and control logic. Serial optical link for communication with DASY embedded system (fully remote controlled). Two step probe touch detector for mechanical surface detection and emergency robot stop.	
<b>Measurement Range</b>	-100 to +300 mV (16 bit resolution and two range settings: 4mV, 400mV)	
<b>Input Offset Voltage</b>	$< 5$ $\mu$ V (with auto zero)	
<b>Input Bias Current</b>	$< 50$ fA	
<b>Dimensions</b>	60 x 60 x 68 mm	


## 3.2.4 Phantoms


<b>Model</b>	Twin SAM	
<b>Construction</b>	The shell corresponds to the specifications of the Specific Anthropomorphic Mannequin (SAM) phantom defined in IEEE 1528 and IEC 62209-1. It enables the dosimetric evaluation of left and right hand phone usage as well as body mounted usage at the flat phantom region. A cover prevents evaporation of the liquid. Reference markings on the phantom allow the complete setup of all predefined phantom positions and measurement grids by teaching three points with the robot.	
<b>Material</b>	Vinylester, glass fiber reinforced (VE-GF)	
<b>Shell Thickness</b>	$2 \pm 0.2$ mm ( $6 \pm 0.2$ mm at ear point)	
<b>Dimensions</b>	Length: 1000 mm Width: 500 mm Height: adjustable feet	
<b>Filling Volume</b>	approx. 25 liters	

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<b>Model</b>	ELI	
<b>Construction</b>	Phantom for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30 MHz to 6 GHz. ELI is fully compatible with the IEC 62209-2 standard and all known tissue simulating liquids. ELI has been optimized regarding its performance and can be integrated into our standard phantom tables. A cover prevents evaporation of the liquid. Reference markings on the phantom allow installation of the complete setup, including all predefined phantom positions and measurement grids, by teaching three points. The phantom is compatible with all SPEAG dosimetric probes and dipoles.	
<b>Material</b>	Vinylester, glass fiber reinforced (VE-GF)	
<b>Shell Thickness</b>	2.0 ± 0.2 mm (bottom plate)	
<b>Dimensions</b>	Major axis: 600 mm Minor axis: 400 mm	
<b>Filling Volume</b>	approx. 30 liters	

### 3.2.5 Device Holder

<b>Model</b>	Mounting Device	
<b>Construction</b>	In combination with the Twin SAM Phantom or ELI4, the Mounting Device enables the rotation of the mounted transmitter device in spherical coordinates. Rotation point is the ear opening point. Transmitter devices can be easily and accurately positioned according to IEC, IEEE, FCC or other specifications. The device holder can be locked for positioning at different phantom sections (left head, right head, flat).	
<b>Material</b>	POM	

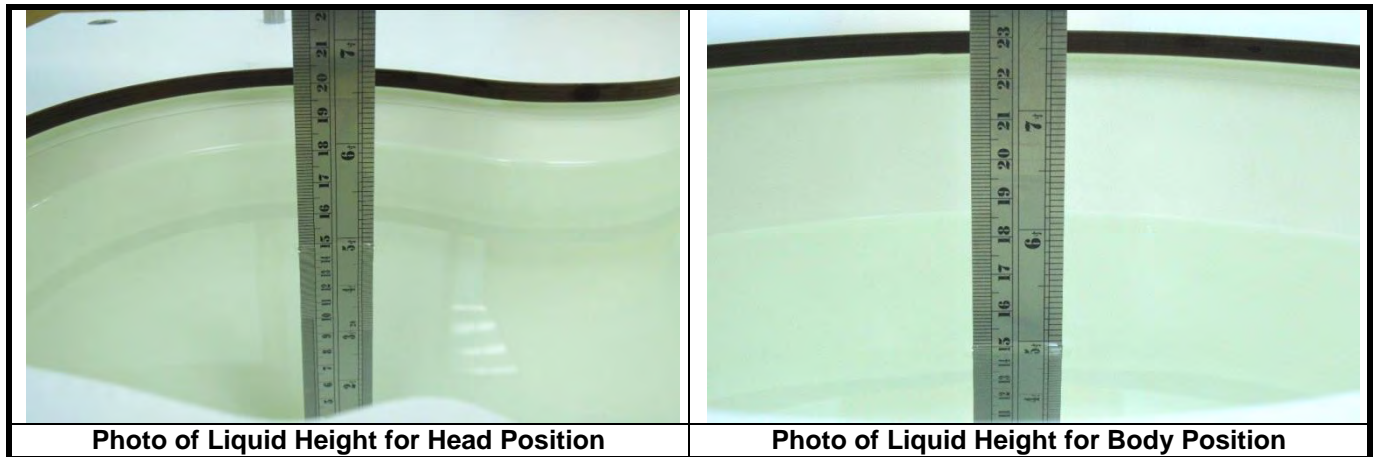
<b>Model</b>	Laptop Extensions Kit	
<b>Construction</b>	Simple but effective and easy-to-use extension for Mounting Device that facilitates the testing of larger devices according to IEC 62209-2 (e.g., laptops, cameras, etc.). It is lightweight and fits easily on the upper part of the Mounting Device in place of the phone positioner.	
<b>Material</b>	POM, Acrylic glass, Foam	

### 3.2.6 System Validation Dipoles

<b>Model</b>	D-Serial	
<b>Construction</b>	Symmetrical dipole with 1/4 balun. Enables measurement of feedpoint impedance with NWA. Matched for use near flat phantoms filled with tissue simulating solutions.	
<b>Frequency</b>	750 MHz to 5800 MHz	
<b>Return Loss</b>	> 20 dB	
<b>Power Capability</b>	> 100 W (f < 1GHz), > 40 W (f > 1GHz)	

**3.2.7 Tissue Simulating Liquids**

For SAR measurement of the field distribution inside the phantom, the phantom must be filled with homogeneous tissue simulating liquid to a depth of at least 15 cm. For head SAR testing, the liquid height from the ear reference point (ERP) of the phantom to the liquid top surface is larger than 15 cm. For body SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is larger than 15 cm. The nominal dielectric values of the tissue simulating liquids in the phantom and the tolerance of 10 % are listed in Table-3.1.



**Table-3.1 Targets of Tissue Simulating Liquid**

Frequency (MHz)	Target Permittivity	Range of $\pm 10\%$	Target Conductivity	Range of $\pm 10\%$
450	43.5	39.2 ~ 47.9	0.87	0.78 ~ 0.96
750	41.9	37.7 ~ 46.1	0.89	0.80 ~ 0.98
835	41.5	37.4 ~ 45.7	0.90	0.81 ~ 0.99
900	41.5	37.4 ~ 45.7	0.97	0.87 ~ 1.07
1450	40.5	36.5 ~ 44.6	1.20	1.08 ~ 1.32
1500	40.4	36.4 ~ 44.4	1.23	1.11 ~ 1.35
1640	40.2	36.2 ~ 44.2	1.31	1.18 ~ 1.44
1750	40.1	36.1 ~ 44.1	1.37	1.23 ~ 1.51
1800	40.0	36.0 ~ 44.0	1.40	1.26 ~ 1.54
1900	40.0	36.0 ~ 44.0	1.40	1.26 ~ 1.54
2000	40.0	36.0 ~ 44.0	1.40	1.26 ~ 1.54
2100	39.8	35.8 ~ 43.8	1.49	1.34 ~ 1.64
2300	39.5	35.6 ~ 43.5	1.67	1.50 ~ 1.84
2450	39.2	35.3 ~ 43.1	1.80	1.62 ~ 1.98
2600	39.0	35.1 ~ 42.9	1.96	1.76 ~ 2.16
3000	38.5	34.7 ~ 42.4	2.40	2.16 ~ 2.64
3500	37.9	34.1 ~ 41.7	2.91	2.62 ~ 3.20
4000	37.4	33.7 ~ 41.1	3.43	3.09 ~ 3.77
4500	36.8	33.1 ~ 40.5	3.94	3.55 ~ 4.33
5000	36.2	32.6 ~ 39.8	4.45	4.01 ~ 4.90
5200	36.0	32.4 ~ 39.6	4.66	4.19 ~ 5.13
5400	35.8	32.2 ~ 39.4	4.86	4.37 ~ 5.35
5600	35.5	32.0 ~ 39.1	5.07	4.56 ~ 5.58
5800	35.3	31.8 ~ 38.8	5.27	4.74 ~ 5.80
6000	35.1	31.6 ~ 38.6	5.48	4.93 ~ 6.03

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The dielectric properties of the tissue simulating liquids are defined in IEC 62209-1 and IEC 62209-2. The dielectric properties of the tissue simulating liquids were verified prior to the SAR evaluation using a dielectric assessment kit and a network analyzer.

Since the range of  $\pm 10\%$  of the required target values is used to measure relative permittivity and conductivity, the SAR correction procedure is applied to correct measured SAR for the deviations in permittivity and conductivity. Only positive correction has been used to scale up the measured SAR, and SAR result would not be corrected if the correction  $\Delta$  SAR has a negative sign.

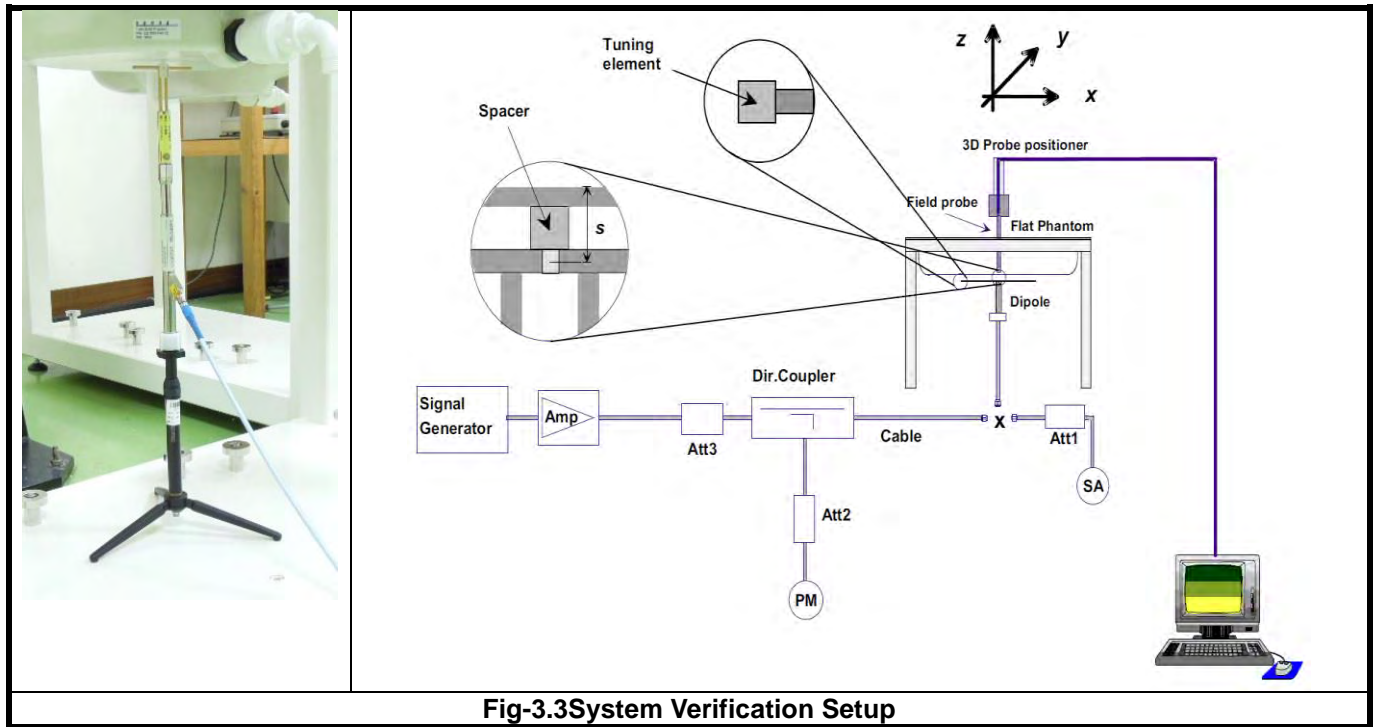
The following table gives the recipes for tissue simulating liquids.

**Table-3.2 Recipes of Tissue Simulating Liquid**

Tissue Type	Bactericide	DGBE	HEC	NaCl	Sucrose	Triton X-100	Water	Diethylene Glycol Mono-hexylether
H750	0.2	-	0.2	1.5	56.0	-	42.1	-
H835	0.2	-	0.2	1.5	57.0	-	41.1	-
H900	0.2	-	0.2	1.4	58.0	-	40.2	-
H1450	-	43.3	-	0.6	-	-	56.1	-
H1640	-	45.8	-	0.5	-	-	53.7	-
H1750	-	47.0	-	0.4	-	-	52.6	-
H1800	-	44.5	-	0.3	-	-	55.2	-
H1900	-	44.5	-	0.2	-	-	55.3	-
H2000	-	44.5	-	0.1	-	-	55.4	-
H2300	-	44.9	-	0.1	-	-	55.0	-
H2450	-	45.0	-	0.1	-	-	54.9	-
H2600	-	45.1	-	0.1	-	-	54.8	-
H3500	-	8.0	-	0.2	-	20.0	71.8	-
H5G	-	-	-	-	-	17.2	65.5	17.3

### 3.3 SAR System Verification

The system check verifies that the system operates within its specifications. It is performed daily or before every SAR measurement. The system check uses normal SAR measurements in the flat section of the phantom with a matched dipole at a specified distance. The system verification setup is shown as below.



**Fig-3.3 System Verification Setup**

The validation dipole is placed beneath the flat phantom with the specific spacer in place. The distance spacer is touch the phantom surface with a light pressure at the reference marking and be oriented parallel to the long side of the phantom. The spectrum analyzer measures the forward power at the location of the system check dipole connector. The signal generator is adjusted for the desired forward power (250 mW is used for 700 MHz to 3 GHz, 100 mW is used for 3.5 GHz to 6 GHz) at the dipole connector and the power meter is read at that level. After connecting the cable to the dipole, the signal generator is readjusted for the same reading at power meter.

After system check testing, the SAR result will be normalized to 1W forward input power and compared with the reference SAR value derived from validation dipole certificate report. The deviation of system check should be within 10 %.

**3.4 SAR Measurement Procedure**

According to the SAR test standard, the recommended procedure for assessing the peak spatial-average SAR value consists of the following steps:

- (a) Power reference measurement
- (b) Area scan
- (c) Zoom scan
- (d) Power drift measurement

The SAR measurement procedures for each of test conditions are as follows:

- (a) Make EUT to transmit maximum output power
- (b) Measure conducted output power through RF cable
- (c) Place the EUT in the specific position of phantom
- (d) Perform SAR testing steps on the DASY system
- (e) Record the SAR value

**3.4.1 Area & Zoom Scan Procedure**

First Area Scan is used to locate the approximate location(s) of the local peak SAR value(s). The measurement grid within an Area Scan is defined by the grid extent, grid step size and grid offset. Next, in order to determine the EM field distribution in a three-dimensional spatial extension, Zoom Scan is required. The Zoom Scan is performed around the highest E-field value to determine the averaged SAR-distribution over 10 g. According to KDB 865664D01, the resolution for Area and Zoom scan is specified in the table below.

Items	<= 2 GHz	2-3 GHz	3-4 GHz	4-5 GHz	5-6 GHz
Area Scan ( $\Delta x, \Delta y$ )	<= 15 mm	<= 12 mm	<= 12 mm	<= 10 mm	<= 10 mm
Zoom Scan ( $\Delta x, \Delta y$ )	<= 8 mm	<= 5 mm	<= 5 mm	<= 4 mm	<= 4 mm
Zoom Scan ( $\Delta z$ )	<= 5 mm	<= 5 mm	<= 4 mm	<= 3 mm	<= 2 mm
Zoom Scan Volume	>= 30 mm	>= 30 mm	>= 28 mm	>= 25 mm	>= 22 mm

**Note:**

When zoom scan is required and report SAR is <=1.4 W/kg, the zoom scan resolution of  $\Delta x / \Delta y$  (2-3GHz: <= 8 mm, 3-4GHz: <= 7 mm, 4-6GHz: <= 5 mm) may be applied.

**3.4.2 Volume Scan Procedure**

The volume scan is used for assess overlapping SAR distributions for antennas transmitting in different frequency bands. It is equivalent to an oversized zoom scan used in standalone measurements. The measurement volume will be used to enclose all the simultaneous transmitting antennas. For antennas transmitting simultaneously in different frequency bands, the volume scan is measured separately in each frequency band. In order to sum correctly to compute the 1g aggregate SAR, the EUT remain in the same test position for all measurements and all volume scan use the same spatial resolution and grid spacing. When all volume scan were completed, the software, SEMCAD postprocessor can combine and subsequently superpose these measurement data to calculating the multiband SAR.

### 3.4.3 Power Drift Monitoring

All SAR testing is under the EUT install full charged battery and transmit maximum output power. In DASYS measurement software, the power reference measurement and power drift measurement procedures are used for monitoring the power drift of EUT during SAR test. Both these procedures measure the field at a specified reference position before and after the SAR testing. The software will calculate the field difference in dB. If the power drift more than 5%, the SAR will be retested.

### 3.4.4 Spatial Peak SAR Evaluation

The procedure for spatial peak SAR evaluation has been implemented according to the test standard. It can be conducted for 1g and 10g, as well as for user-specific masses. The DASYS software includes all numerical procedures necessary to evaluate the spatial peak SAR value.

The base for the evaluation is a "cube" measurement. The measured volume must include the 1g and 10g cubes with the highest averaged SAR values. For that purpose, the center of the measured volume is aligned to the interpolated peak SAR value of a previously performed area scan.

The entire evaluation of the spatial peak values is performed within the post-processing engine (SEMCAD). The system always gives the maximum values for the 1g and 10g cubes. The algorithm to find the cube with highest averaged SAR is divided into the following stages:

- (a) Extraction of the measured data (grid and values) from the Zoom Scan
- (b) Calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters)
- (c) Generation of a high-resolution mesh within the measured volume
- (d) Interpolation of all measured values from the measurement grid to the high-resolution grid
- (e) Extrapolation of the entire 3-D field distribution to the phantom surface over the distance from sensor to surface
- (f) Calculation of the averaged SAR within masses of 1g and 10g

### 3.4.5 SAR Averaged Methods

In DASYS, the interpolation and extrapolation are both based on the modified Quadratic Shepard's method. The interpolation scheme combines a least-square fitted function method and a weighted average method which are the two basic types of computational interpolation and approximation.

Extrapolation routines are used to obtain SAR values between the lowest measurement points and the inner phantom surface. The extrapolation distance is determined by the surface detection distance and the probe sensor offset. The uncertainty increases with the extrapolation distance. To keep the uncertainty within 1% for the 1 g and 10 g cubes, the extrapolation distance should not be larger than 5 mm.

## 4. SAR Measurement Evaluation

### 4.1 EUT Configuration and Setting

#### <Considerations Related to Proximity Sensor>

The device supports WWAN, WLAN, and Bluetooth capabilities. It is designed with a proximity sensor which can trigger/not trigger power reduction for WCDMA V and LTE 4/5/7/13/14/26/38/41/66 on Rear Face and Top Side of EUT for SAR compliance. Others RF capability (WLAN and Bluetooth) have no power reduction. The power levels for all wireless technologies and the power reduction please refer to section 4.6 of this report.

#### Proximity Sensor Triggering Distances (KDB 616217 D04 §6.2)

The proximity sensor triggering distance was determined per KDB 616217 for rear face and applicable edge. Summary for power verification per distance was tabulated in the below table.

Output Power Verification in dBm for EUT Rear Face											
Distance (mm)	6	7	8	9	10	11	12	13	14	15	16
WCDMA V	23.4	23.3	23.2	23.0	23.4	23.2	24.2	24.2	24.2	23.9	23.8
LTE 4	21.8	21.7	21.9	21.4	21.5	21.6	23.2	23.7	23.2	23.7	23.2
LTE 5	22.7	22.5	22.6	22.4	22.7	22.5	23.6	23.4	23.5	23.4	23.5
LTE 7	20.3	20.1	20.1	20.2	20.6	20.5	23.7	23.7	23.7	23.6	23.5
LTE 13	22.9	22.4	22.9	22.6	22.6	22.8	23.6	23.4	23.4	23.9	23.9
LTE 14	23.0	23.0	22.9	23.0	22.6	22.8	23.9	23.6	23.6	23.8	23.8
LTE 26	22.4	22.4	22.7	22.5	22.8	22.9	23.8	23.8	23.5	23.9	23.9
LTE 38	22.7	22.5	22.6	22.7	22.4	22.7	23.7	24.0	24.0	23.9	23.9
LTE 41	22.5	22.8	22.5	22.6	22.4	22.7	23.7	24.1	24.0	23.9	23.8
LTE 66	21.7	21.6	21.8	21.4	21.8	21.4	23.6	23.8	23.7	23.6	23.9

Output Power Verification in dBm for EUT Top Edge											
Distance (mm)	8	9	10	11	12	13	14	15	16	17	18
WCDMA V	23.5	23.5	23.4	23.3	23.3	23.2	23.9	23.7	23.8	24.2	23.9
LTE 4	21.9	21.6	21.7	21.9	21.6	21.4	23.5	23.4	23.7	23.3	23.2
LTE 5	22.8	22.7	22.5	22.9	22.7	22.8	23.6	23.7	23.8	23.7	23.4
LTE 7	20.1	20.1	20.2	20.5	20.5	20.6	23.7	23.6	23.7	23.7	23.8
LTE 13	22.5	22.8	22.4	22.8	22.4	22.9	23.7	23.9	23.5	23.8	23.5
LTE 14	22.9	22.9	23.0	22.8	23.0	22.7	23.6	23.7	23.7	23.7	23.6
LTE 26	22.7	22.7	22.4	22.5	22.8	22.6	23.6	23.7	23.9	23.4	23.8
LTE 38	22.5	22.3	22.7	22.6	22.3	22.3	23.9	23.8	24.1	24.1	23.7
LTE 41	22.9	22.4	22.5	22.9	22.4	22.8	24.1	24.1	23.8	23.8	23.7
LTE 66	21.6	21.4	21.8	21.5	21.7	21.3	23.7	23.5	23.6	23.8	23.5

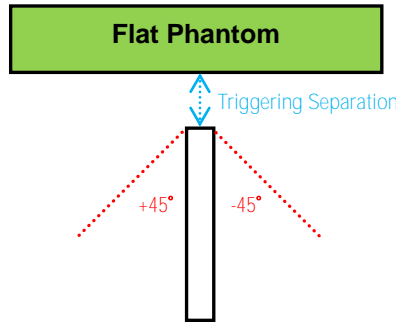
#### Proximity Sensor Coverage (KDB 616217 D04 §6.3)

Since the proximity sensor is collocated with antenna in one component, the procedure for proximity sensor coverage is not required.



**Proximity Sensor Tilt Angle Influences(KDB 616217 D04 §6.4)**

The proximity sensor tilt angle influence was determined per KDB 616217 for applicable edge. Summary for proximity sensor tilt angle influence is shown in below.



Orientation	Separation Distance (mm)	Tilt Angle										
		-45°	-40°	-30°	-20°	-10°	0°	10°	20°	30°	40°	45°
Top Edge	13	On	On	On	On	On	On	On	On	On	On	On

**Summary for Proximity Sensor Triggering Test**

According to the procedures noticed in KDB 616217 D04, the proximity sensor triggering distance is 11 mm for EUT Rear Face, and 13 mm for Top Side. The separation distance of 12 mm determined by the smallest triggering distance on Top Side is used to access the tilt angle influence and the sensor does not release during  $\pm 45$  degree. Therefore, the smallest separation distance for tilt angle influence is 12 mm for the Top Side. The conservation triggering distances based on the separation distance for the sensor trigger / not triggered as EUT with power reduction at 0 mm, and EUT without power reduction at 2 mm for EUT Rear Face, and 2 mm for Top Side were used to test SAR.

The power reduction is depends on the proximity sensor input. For a steady SAR test, the power reduction was enabled or disabled manually by engineering software during SAR testing.

## <Connections between EUT and System Simulator>

For WWAN SAR testing, the EUT was linked and controlled by base station emulator. Communication between the EUT and the emulator was established by air link. The distance between the EUT and the communicating antenna of the emulator is larger than 50 cm and the output power radiated from the emulator antenna is at least 30 dB smaller than the output power of EUT. The EUT was set from the emulator to radiate maximum output power during SAR testing.

## <Considerations Related to WCDMA for Setup and Testing>

### Release 5 HSDPA Data Devices

The 3G SAR test reduction procedure is applied to body SAR with 12.2 kbps RMC as the primary mode. Otherwise, body SAR for HSDPA is measured using an FRC with H-Set 1 in Sub-test 1 and a 12.2 kbps RMC configured in Test Loop Mode 1, for the highest reported SAR configuration in 12.2 kbps RMC without HSDPA. HSDPA is configured according to the applicable UE category of a test device. The number of HS-DSCH/HS-PDSCHs, HARQ processes, minimum inter-TTI interval, transport block sizes and RV coding sequence are defined by the H-set. To maintain a consistent test configuration and stable transmission conditions, QPSK is used in the H-set for SAR testing. HS-DPCCH should be configured with a CQI feedback cycle of 4 ms and a CQI repetition factor of 2 to maintain a constant rate of active CQI slots. DPCCH and DPDCH gain factors ( $\beta_c$ ,  $\beta_d$ ), and HS-DPCCH power offset parameters ( $\Delta_{ACK}$ ,  $\Delta_{NACK}$ ,  $\Delta_{CQI}$ ) are set according to values indicated in below. The CQI value is determined by the UE category, transport block size, number of HS-PDSCHs and modulation used in the H-set.

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

Note 1:  $\Delta_{ACK}$ ,  $\Delta_{NACK}$  and  $\Delta_{CQI} = 30/15$  with  $\beta_{HS} = 30/15 * \beta_c$ .  
 Note 2: For the HS-DPCCH power mask requirement test in clause 5.2C, 5.7A, and the Error Vector Magnitude (EVM) with HS-DPCCH test in clause 5.13.1A, and HSDPA EVM with phase discontinuity in clause 5.13.1AA,  $\Delta_{ACK}$  and  $\Delta_{NACK} = 30/15$  with  $\beta_{HS} = 30/15 * \beta_c$ , and  $\Delta_{CQI} = 24/15$  with  $\beta_{HS} = 24/15 * \beta_c$ .  
 Note 3: CM = 1 for  $\beta_d/\beta_c = 12/15, \beta_{HS}/\beta_c = 24/15$ . For all other combinations of DPDCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.  
 Note 4: For subtest 2 the  $\beta_d/\beta_c$  ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to  $\beta_c = 11/15$  and  $\beta_d = 15/15$ .

# FCC SAR Test Report

## Release 6 HSUPA Data Devices

The 3G SAR test reduction procedure is applied to body SAR with 12.2 kbps RMC as the primary mode. Otherwise, body SAR for HSPA is measured with E-DCH Sub-test 5, using H-Set 1 and QPSK for FRC and a 12.2 kbps RMC configured in Test Loop Mode 1 and power control algorithm 2, according to the highest reported body SAR configuration in 12.2 kbps RMC without HSPA. When VOIP applies to head exposure, the 3G SAR test reduction procedure is applied with 12.2 kbps RMC as the primary mode. Otherwise, the same HSPA configuration used for body SAR measurements are applied to head exposure testing. Due to inner loop power control requirements in HSPA, a communication test set is required for output power and SAR tests. The 12.2 kbps RMC, FRC H-set 1 and E-DCH configurations for HSPA are configured according to the  $\beta$  values indicated in below.

Sub-test	$\beta_c$	$\beta_d$	$\beta_d$ (SF)	$\beta/\beta_d$	$\beta_{HS}^{(1)}$	$\beta_{ec}$	$\beta_{ed}^{(4)(5)}$	$\beta_{ed}$ (SF)	$\beta_{ed}$ (Codes)	CM <sup>(2)</sup> (dB)	MPR <sup>(2)(6)</sup> (dB)	AG <sup>(5)</sup> Index	E-TFCI
1	11/15 <sup>(3)</sup>	15/15 <sup>(3)</sup>	64	11/15 <sup>(3)</sup>	22/15	209/225	1309/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	$\beta_{ed1}: 47/15$ $\beta_{ed2}: 47/15$	4 4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15	0	-	-	5/15	5/15	47/15	4	1	1.0	0.0	12	67

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

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

Note 3: For subtest 1 the  $\beta_c/\beta_d$  ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to  $\beta_c = 10/15$  and  $\beta_d = 15/15$ .

Note 4: In case of testing by UE using E-DPDCH Physical Layer category 1, Sub-test 3 is omitted according to TS25.306 Table 5.1g.

Note 5:  $\beta_{ed}$  can not be set directly; it is set by Absolute Grant Value.

Note 6: For subtests 2, 3 and 4, UE may perform E-DPDCH power scaling at max power which could result in slightly smaller MPR values.

## DC-HSDPA SAR Guidance

The 3G SAR test reduction procedure is applied to DC-HSDPA with 12.2 kbps RMC as the primary mode. Otherwise, when SAR is required for Rel. 5 HSDPA, SAR is required for Rel. 8 DC-HSDPA. Power is measured for DC-HSDPA according to the H-Set 12, FRC configuration in Table C.8.1.12 of 3GPP TS 34.121-1 to determine SAR test reduction. A primary and a secondary serving HS-DSCH Cell are required to perform the power measurement and for the results to be acceptable.

# FCC SAR Test Report

## <Considerations Related to LTE for Setup and Testing>

This device contains LTE transmitter which follows 3GPP standards, is category 3, supports both QPSK and QAM modulations, and supported LTE band and channel bandwidth is listed in below. The output power was tested per 3GPP TS 36.521-1 maximum transmit procedures for both QPSK and QAM modulation. The results please refer to section 4.6 of this report.

EUT Supported LTE Band and Channel Bandwidth						
LTE Band	BW 1.4 MHz	BW 3 MHz	BW 5 MHz	BW 10 MHz	BW 15 MHz	BW 20 MHz
2	V	V	V	V	V	V
4	V	V	V	V	V	V
5	V	V	V	V		
7			V	V	V	V
12	V	V	V	V		
13			V	V		
14			V	V		
17			V	V		
25	V	V	V	V	V	V
26	V	V	V	V	V	
30			V	V		
38			V	V	V	V
41			V	V	V	V
66	V	V	V	V	V	V

The LTE maximum power reduction (MPR) in accordance with 3GPP TS 36.101 is active all times during LTE operation. The allowed MPR for the maximum output power is specified in below.

Modulation	Channel Bandwidth / RB Configurations						LTE MPR Setting (dB)
	BW 1.4 MHz	BW 3 MHz	BW 5 MHz	BW 10 MHz	BW 15 MHz	BW 20 MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	1
16QAM	<= 5	<= 4	<= 8	<= 12	<= 16	<= 18	1
16QAM	> 5	> 4	> 8	> 12	> 16	> 18	2
64QAM	<= 5	<= 4	<= 8	<= 12	<= 16	<= 18	2
64QAM	> 5	> 4	> 8	> 12	> 16	> 18	3

**Note:** MPR is according to the standard and implemented in the circuit (mandatory).

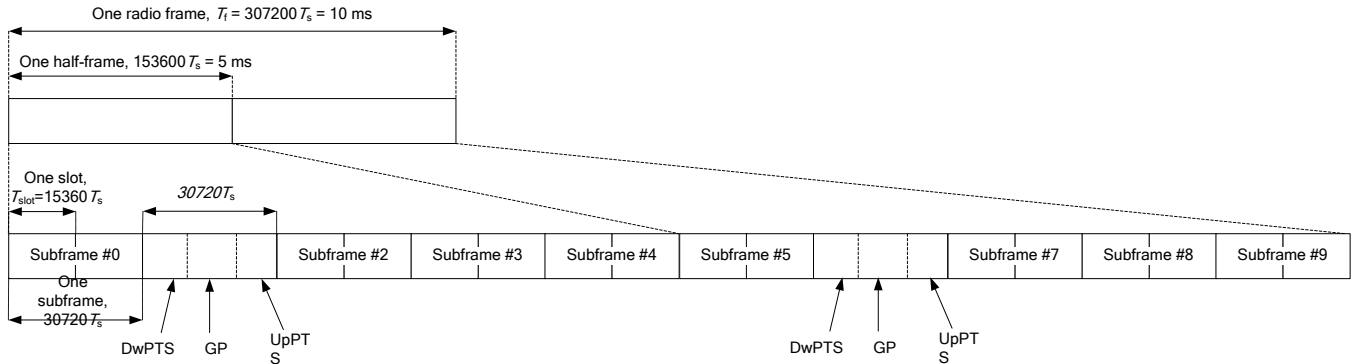
In addition, the device is compliant with additional maximum power reduction (A-MPR) requirements defined in 3GPP TS 36.101 section 6.2.4 that was disabled for all FCC compliance testing.

During LTE SAR testing, the related parameters of operating band, channel bandwidth, uplink channel number, modulation type, and RB was set in base station simulator. When the EUT has registered and communicated to base station simulator, the simulator set to make EUT transmitting the maximum radiated power.

# FCC SAR Test Report

## TDD-LTE Setup Configurations

According to KDB 941225 D05, SAR testing for TDD-LTE device must be tested using a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by the defined 3GPP TDD-LTE configurations. The TDD-LTE of this device supports frame structure type 2 defined in 3GPP TS 36.211 section 4.2, and the frame structure configuration can be referred to below.



3GPP TS 36.211 Figure 4.2-1: Frame Structure Type 2

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 · T <sub>s</sub>	2192 · T <sub>s</sub>	2560 · T <sub>s</sub>	7680 · T <sub>s</sub>	2192 · T <sub>s</sub>	2560 · T <sub>s</sub>
1	19760 · T <sub>s</sub>			20480 · T <sub>s</sub>		
2	21952 · T <sub>s</sub>			23040 · T <sub>s</sub>		
3	24144 · T <sub>s</sub>			25600 · T <sub>s</sub>		
4	26336 · T <sub>s</sub>	4384 · T <sub>s</sub>	5120 · T <sub>s</sub>	7680 · T <sub>s</sub>	4384 · T <sub>s</sub>	5120 · T <sub>s</sub>
5	6592 · T <sub>s</sub>			20480 · T <sub>s</sub>		
6	19760 · T <sub>s</sub>			23040 · T <sub>s</sub>		
7	21952 · T <sub>s</sub>	-	-	12800 · T <sub>s</sub>	-	-
8	24144 · T <sub>s</sub>					
9	13168 · T <sub>s</sub>					

3GPP TS 36.211 Table 4.2-1: Configuration of Special Subframe

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	

3GPP TS 36.211 Table 4.2-2: Uplink-Downlink Configurations

## FCC SAR Test Report

The variety of different TD-LTE uplink-downlink configurations allows a network operator to allocate the network's capacity between uplink and downlink traffic to meet the needs of the network. The uplink duty cycle of these seven configurations can readily be computed and shown in below.

UL-DL Configuration	0	1	2	3	4	5	6
Highest Duty-Cycle	63.33%	43.33%	23.33%	31.67%	21.67%	11.67%	53.33%

### <Considerations Related to WLAN for Setup and Testing>

In general, various vendor specific external test software and chipset based internal test modes are typically used for SAR measurement. These chipset based test mode utilities are generally hardware and manufacturer dependent, and often include substantial flexibility to reconfigure or reprogram a device. A Wi-Fi device must be configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools for SAR measurement. The test frequencies established using test mode must correspond to the actual channel frequencies. When 802.11 frame gaps are accounted for in the transmission, a maximum transmission duty factor of 92 - 96% is typically achievable in most test mode configurations. A minimum transmission duty factor of 85% is required to avoid certain hardware and device implementation issues related to wide range SAR scaling. In addition, a periodic transmission duty factor is required for current generation SAR systems to measure SAR correctly. The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit.

According to KDB 248227 D01, this device has installed WLAN engineering testing software which can provide continuous transmitting RF signal. During WLAN SAR testing, this device was operated to transmit continuously at the maximum transmission duty with specified transmission mode, operating frequency, lowest data rate, and maximum output power.

### Initial Test Configuration

An initial test configuration is determined for OFDM transmission modes in 2.4 GHz and 5 GHz bands according to the channel bandwidth, modulation and data rate combination(s) with the highest maximum output power specified for production units in each standalone and aggregated frequency band. When the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band.

### Subsequent Test Configuration

SAR measurement requirements for the remaining 802.11 transmission mode configurations that have not been tested in the initial test configuration are determined separately for each standalone and aggregated frequency band, in each exposure condition, according to the maximum output power specified for production units. Additional power measurements may be required to determine if SAR measurements are required for subsequent highest output power channels in a subsequent test configuration. When the highest reported SAR for the initial test configuration according to the initial test position or fixed exposure position requirements, is adjusted by the ratio of the subsequent test configuration to initial test configuration specified maximum output power and the adjusted SAR is  $\leq 1.2$  W/kg, SAR is not required for that subsequent test configuration.

### **SAR Test Configuration and Channel Selection**

When multiple channel bandwidth configurations in a frequency band have the same specified maximum output power, the initial test configuration is using largest channel bandwidth, lowest order modulation, lowest data rate, and lowest order 802.11 mode (i.e., 802.11a is chosen over 802.11n then 802.11ac or 802.11g is chosen over 802.11n). After an initial test configuration is determined, if multiple test channels have the same measured maximum output power, the channel chosen for SAR measurement is determined according to the following.

- 1) The channel closest to mid-band frequency is selected for SAR measurement.
- 2) For channels with equal separation from mid-band frequency; for example, high and low channels or two mid-band channels, the higher frequency (number) channel is selected for SAR measurement.

### **Test Reduction for U-NII-1 (5.2 GHz) and U-NII-2A (5.3 GHz) Bands**

For devices that operate in both U-NII bands using the same transmitter and antenna(s), SAR test reduction is determined according to the following.

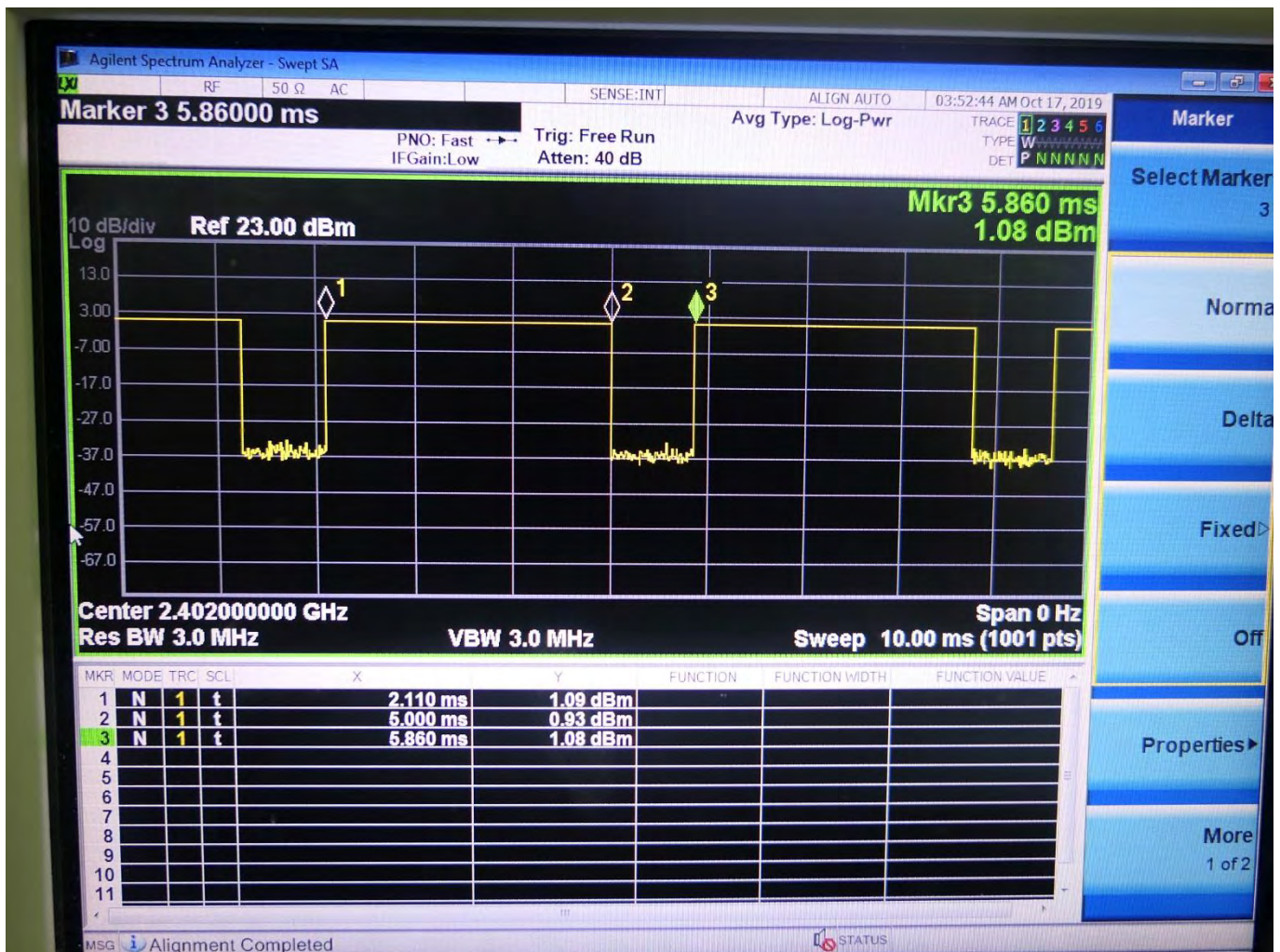
- 1) When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is  $\leq 1.2$  W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition).
- 2) When different maximum output power is specified for the bands, begin SAR measurement in the band with higher specified maximum output power. The highest reported SAR for the tested configuration is adjusted by the ratio of lower to higher specified maximum output power for the two bands. When the adjusted SAR is  $\leq 1.2$  W/kg, SAR is not required for the band with lower maximum output power in that test configuration.

# FCC SAR Test Report

## <Considerations Related to Bluetooth for Setup and Testing>

This device has installed Bluetooth engineering testing software which can provide continuous transmitting RF signal. During Bluetooth SAR testing, this device was operated to transmit continuously at the maximum transmission duty with specified transmission mode, operating frequency, lowest data rate, and maximum output power.

The Bluetooth call box has been used during SAR measurement and the EUT was set to DH5 mode at the maximum output power. Its duty factor was calculated as below and the measured SAR for Bluetooth would be scaled to the 100% transmission duty factor to determine compliance.



Time-domain plot for Bluetooth transmission signal

The duty factor of Bluetooth signal has been calculated as following.

$$\text{Duty Factor} = \text{Pulse Width} / \text{Total Period} = (5.000 - 2.110) / (5.860 - 2.110) = 77.10 \%$$



## 4.2 EUT Testing Position

### 4.2.1 Body Exposure Conditions

For full-size tablet, according to KDB 616217 D04, SAR evaluation is required for back surface and edges of the devices. The back surface and edges of the tablet are tested with the tablet touching the phantom. Exposures from antennas through the front surface of the display section of a tablet are generally limited to the user's hands. Exposures to hands for typical consumer transmitters used in tablets are not expected to exceed the extremity SAR limit; therefore, SAR evaluation for the front surface of tablet display screens are generally not necessary. When voice mode is supported on a tablet and it is limited to speaker mode or headset operations only, additional SAR testing for this type of voice use is not required.

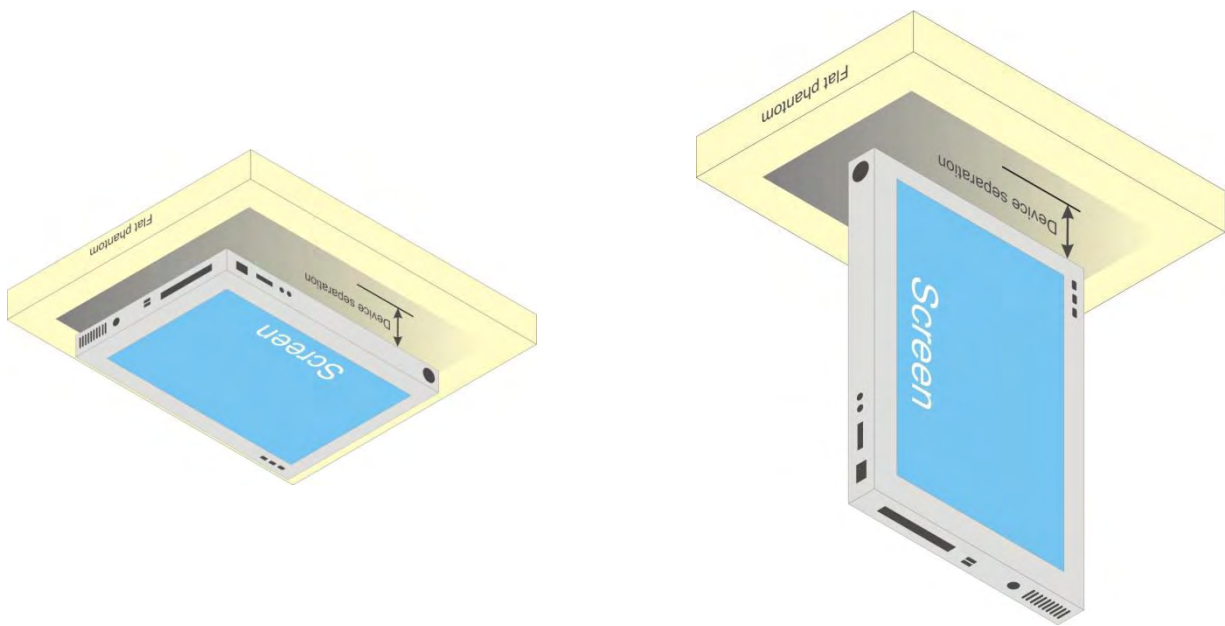


Fig-4.1 Illustration for Tablet Setup

**4.2.2 SAR Test Exclusion Evaluations**

According to KDB 447498 D01, the SAR test exclusion condition is based on source-based time-averaged maximum conducted output power, adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions. The SAR exclusion threshold is determined by the following formula.

1. For the test separation distance  $\leq 50$  mm

$$\frac{\text{Max. Tune up Power}_{(mW)}}{\text{Min. Test Separation Distance}_{(mm)}} \times \sqrt{f_{(GHz)}} \leq 3.0 \text{ for SAR-1g, } \leq 7.5 \text{ for SAR-10g}$$

When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion.

2. For the test separation distance  $> 50$  mm, and the frequency at 100 MHz to 1500 MHz

$$\left[ (\text{Threshold at 50 mm in Step 1}) + (\text{Test Separation Distance} - 50 \text{ mm}) \times \left( \frac{f_{(MHz)}}{150} \right) \right]_{(mW)}$$

3. For the test separation distance  $> 50$  mm, and the frequency at  $> 1500$  MHz to 6 GHz

$$[(\text{Threshold at 50 mm in Step 1}) + (\text{Test Separation Distance} - 50 \text{ mm}) \times 10]_{(mW)}$$

**<For WWAN Ant-0>**

Mode	Max Tune-up Power (dBm)	Max Tune-up Power (mW)	Rear Face			Left Side			Right Side			Top Side			Bottom Side		
			Ant. to Surface (mm)	Calculated Result	Require SAR Testing?	Ant. to Surface (mm)	Calculated Result	Require SAR Testing?	Ant. to Surface (mm)	Calculated Result	Require SAR Testing?	Ant. to Surface (mm)	Calculated Result	Require SAR Testing?	Ant. to Surface (mm)	Calculated Result	Require SAR Testing?
WCDMA II	24.5	282	5	77.9	Yes	47.9	8.13	Yes	185	1459 mW	No	8.7	44.77	Yes	190.7	1516 mW	No
WCDMA IV	24.5	282	5	74.67	Yes	47.9	7.79	Yes	185	1463 mW	No	8.7	42.91	Yes	190.7	1520 mW	No
WCDMA V	24.5	282	5	51.89	Yes	47.9	5.42	Yes	185	925 mW	No	8.7	29.82	Yes	190.7	957 mW	No
LTE 2	24.5	282	5	77.95	Yes	47.9	8.14	Yes	185	1459 mW	No	8.7	44.8	Yes	190.7	1516 mW	No
LTE 4	24.5	282	5	74.72	Yes	47.9	7.8	Yes	185	1463 mW	No	8.7	42.94	Yes	190.7	1520 mW	No
LTE 5	24.5	282	5	51.97	Yes	47.9	5.42	Yes	185	927 mW	No	8.7	29.87	Yes	190.7	959 mW	No
LTE 7	24.5	282	5	90.42	Yes	47.9	9.44	Yes	185	1444 mW	No	8.7	51.96	Yes	190.7	1501 mW	No
LTE 12	24.5	282	5	47.72	Yes	47.9	4.98	Yes	185	822 mW	No	8.7	27.43	Yes	190.7	849 mW	No
LTE 13	24.5	282	5	50.03	Yes	47.9	5.22	Yes	185	877 mW	No	8.7	28.76	Yes	190.7	907 mW	No
LTE 14	24.5	282	5	50.38	Yes	47.9	5.26	Yes	185	886 mW	No	8.7	28.96	Yes	190.7	916 mW	No
LTE 17	24.5	282	5	47.72	Yes	47.9	4.98	Yes	185	822 mW	No	8.7	27.43	Yes	190.7	849 mW	No
LTE 25	24.5	282	5	78.05	Yes	47.9	8.15	Yes	185	1458 mW	No	8.7	44.86	Yes	190.7	1515 mW	No
LTE 26	24.5	282	5	51.97	Yes	47.9	5.42	Yes	185	927 mW	No	8.7	29.87	Yes	190.7	959 mW	No
LTE 30	23	200	5	60.86	Yes	47.9	6.35	Yes	185	1449 mW	No	8.7	34.98	Yes	190.7	1506 mW	No
LTE 38	24.5	282	5	91.29	Yes	47.9	9.53	Yes	185	1443 mW	No	8.7	52.47	Yes	190.7	1500 mW	No
LTE 41	24.5	282	5	92.5	Yes	47.9	9.66	Yes	185	1441 mW	No	8.7	53.16	Yes	190.7	1498 mW	No
LTE 66	24.5	282	5	75.25	Yes	47.9	7.85	Yes	185	1462 mW	No	8.7	43.25	Yes	190.7	1519 mW	No

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## <For WLAN Ant-0>

Mode	Max. Tune-up Power (dBm)	Max. Tune-up Power (mW)	Rear Face			Left Side			Right Side			Top Side			Bottom Side		
			Ant. to Surface (mm)	Calculated Result	Require SAR Testing?	Ant. to Surface (mm)	Calculated Result	Require SAR Testing?	Ant. to Surface (mm)	Calculated Result	Require SAR Testing?	Ant. to Surface (mm)	Calculated Result	Require SAR Testing?	Ant. to Surface (mm)	Calculated Result	Require SAR Testing?
WLAN 2.4G	15	32	5	10.04	Yes	9	5.58	Yes	296.1	2557 mW	No	162.2	1218 mW	No	22.2	2.26	No
WLAN 5.2G	13.5	22	5	10.07	Yes	9	5.6	Yes	296.1	2527 mW	No	162.2	1188 mW	No	22.2	2.27	No
WLAN 5.3G	13.5	22	5	10.15	Yes	9	5.64	Yes	296.1	2526 mW	No	162.2	1187 mW	No	22.2	2.29	No
WLAN 5.6G	13.5	22	5	10.52	Yes	9	5.85	Yes	296.1	2524 mW	No	162.2	1185 mW	No	22.2	2.37	No
WLAN 5.8G	13.5	22	5	10.62	Yes	9	5.9	Yes	296.1	2523 mW	No	162.2	1184 mW	No	22.2	2.39	No

## <For BT/WLAN Ant-1>

Mode	Max. Tune-up Power (dBm)	Max. Tune-up Power (mW)	Rear Face			Left Side			Right Side			Top Side			Bottom Side		
			Ant. to Surface (mm)	Calculated Result	Require SAR Testing?	Ant. to Surface (mm)	Calculated Result	Require SAR Testing?	Ant. to Surface (mm)	Calculated Result	Require SAR Testing?	Ant. to Surface (mm)	Calculated Result	Require SAR Testing?	Ant. to Surface (mm)	Calculated Result	Require SAR Testing?
WLAN 2.4G	15	32	5	10.04	Yes	296.1	2557 mW	No	9	5.58	Yes	164.2	1238 mW	No	22.2	2.26	No
WLAN 5.2G	13.5	22	5	10.07	Yes	296.1	2527 mW	No	9	5.6	Yes	164.2	1208 mW	No	22.2	2.27	No
WLAN 5.3G	13.5	22	5	10.15	Yes	296.1	2526 mW	No	9	5.64	Yes	164.2	1207 mW	No	22.2	2.29	No
WLAN 5.6G	13.5	22	5	10.52	Yes	296.1	2524 mW	No	9	5.85	Yes	164.2	1205 mW	No	22.2	2.37	No
WLAN 5.8G	13.5	22	5	10.62	Yes	296.1	2523 mW	No	9	5.9	Yes	164.2	1204 mW	No	22.2	2.39	No
BT	11	13	5	4.09	Yes	296.1	2556 mW	No	9	2.27	No	164.2	1237 mW	No	22.2	0.92	No

## <For WLAN Ant-0 + Ant-1>

Mode	Max. Tune-up Power (dBm)	Max. Tune-up Power (mW)	Rear Face			Left Side			Right Side			Top Side			Bottom Side		
			Ant. to Surface (mm)	Calculated Result	Require SAR Testing?	Ant. to Surface (mm)	Calculated Result	Require SAR Testing?	Ant. to Surface (mm)	Calculated Result	Require SAR Testing?	Ant. to Surface (mm)	Calculated Result	Require SAR Testing?	Ant. to Surface (mm)	Calculated Result	Require SAR Testing?
WLAN 2.4G	18	63	5	19.77	Yes	9	10.98	Yes	9	10.98	Yes	162.2	1218 mW	No	22.2	4.45	Yes
WLAN 5.2G	16.5	45	5	20.6	Yes	9	11.45	Yes	9	11.45	Yes	162.2	1188 mW	No	22.2	4.64	Yes
WLAN 5.3G	16.5	45	5	20.76	Yes	9	11.53	Yes	9	11.53	Yes	162.2	1187 mW	No	22.2	4.68	Yes
WLAN 5.6G	16.5	45	5	21.52	Yes	9	11.96	Yes	9	11.96	Yes	162.2	1185 mW	No	22.2	4.85	Yes
WLAN 5.8G	16.5	45	5	21.72	Yes	9	12.07	Yes	9	12.07	Yes	162.2	1184 mW	No	22.2	4.89	Yes

**4.3 Tissue Verification**

The measuring results for tissue simulating liquid are shown as below.

Test Date	Frequency (MHz)	Liquid Temp. (°C)	Measured Conductivity ( $\sigma$ )	Measured Permittivity ( $\epsilon_r$ )	Target Conductivity ( $\sigma$ )	Target Permittivity ( $\epsilon_r$ )	Conductivity Deviation (%)	Permittivity Deviation (%)
Oct. 27, 2019	750	23.3	0.894	42.885	0.89	41.9	0.45	2.35
Oct. 31, 2019	750	23.4	0.899	41.399	0.89	41.9	1.01	-1.20
Oct. 31, 2019	835	23.4	0.928	41.992	0.9	41.5	3.11	1.19
Oct. 26, 2019	1750	23.3	1.332	39.524	1.37	40.1	-2.77	-1.44
Oct. 30, 2019	1750	23.3	1.322	39.328	1.37	40.1	-3.50	-1.93
Oct. 26, 2019	1900	23.3	1.459	39	1.4	40	4.21	-2.50
Oct. 27, 2019	1900	23.3	1.444	38.836	1.4	40	3.14	-2.91
Oct. 28, 2019	2300	23.2	1.708	38.531	1.67	39.5	2.28	-2.45
Oct. 28, 2019	2450	23.2	1.861	38.027	1.8	39.2	3.39	-2.99
Oct. 31, 2019	2600	23.4	2.048	38.281	1.96	39	4.49	-1.84
Nov. 01, 2019	5250	23.5	4.836	35.108	4.71	35.9	2.68	-2.21
Nov. 01, 2019	5600	23.5	5.182	34.637	5.07	35.5	2.21	-2.43
Oct. 30, 2019	5750	23.3	5.307	34.368	5.22	35.4	1.67	-2.92

**Note:**

The dielectric properties of the tissue simulating liquid must be measured within 24 hours before the SAR testing and within  $\pm 5\%$  of the target values. Liquid temperature during the SAR testing must be within  $\pm 2$  °C.

**4.4 System Validation**

The SAR measurement system was validated according to procedures in KDB 865664 D01. The validation status in tabulated summary is as below.

Test Date	Probe S/N	Calibration Point	Measured Conductivity ( $\sigma$ )	Measured Permittivity ( $\epsilon_r$ )	Validation for CW			Validation for Modulation		
					Sensitivity Range	Probe Linearity	Probe Isotropy	Modulation Type	Duty Factor	PAR
Oct. 27, 2019	3650	750	0.894	42.885	Pass	Pass	Pass	N/A	N/A	N/A
Oct. 31, 2019	3650	750	0.899	41.399	Pass	Pass	Pass	N/A	N/A	N/A
Oct. 31, 2019	3650	835	0.928	41.992	Pass	Pass	Pass	N/A	N/A	N/A
Oct. 26, 2019	3650	1750	1.332	39.524	Pass	Pass	Pass	N/A	N/A	N/A
Oct. 30, 2019	3650	1750	1.322	39.328	Pass	Pass	Pass	N/A	N/A	N/A
Oct. 26, 2019	3650	1900	1.459	39	Pass	Pass	Pass	N/A	N/A	N/A
Oct. 27, 2019	3650	1900	1.444	38.836	Pass	Pass	Pass	N/A	N/A	N/A
Oct. 28, 2019	3650	2300	1.708	38.531	Pass	Pass	Pass	N/A	N/A	N/A
Oct. 28, 2019	3650	2450	1.861	38.027	Pass	Pass	Pass	OFDM	N/A	Pass
Oct. 31, 2019	3650	2600	2.048	38.281	Pass	Pass	Pass	N/A	N/A	N/A
Nov. 01, 2019	3650	5250	4.836	35.108	Pass	Pass	Pass	OFDM	N/A	Pass
Nov. 01, 2019	3650	5600	5.182	34.637	Pass	Pass	Pass	OFDM	N/A	Pass
Oct. 30, 2019	3650	5750	5.307	34.368	Pass	Pass	Pass	OFDM	N/A	Pass

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### 4.5 System Verification

The measuring result for system verification is tabulated as below.

Test Date	Frequency (MHz)	1W Target SAR-1g (W/kg)	Measured SAR-1g (W/kg)	Normalized to 1W SAR-1g (W/kg)	Deviation (%)	Dipole S/N	Probe S/N	DAE S/N
Oct. 27, 2019	750	8.56	2.04	8.16	-4.67	1013	3650	861
Oct. 31, 2019	750	8.56	2.02	8.08	-5.61	1013	3650	861
Oct. 31, 2019	835	9.61	2.27	9.08	-5.52	4d121	3650	861
Oct. 26, 2019	1750	37.00	9.03	36.12	-2.38	1055	3650	861
Oct. 30, 2019	1750	37.00	8.94	35.76	-3.35	1055	3650	861
Oct. 26, 2019	1900	40.20	9.98	39.92	-0.70	5d036	3650	861
Oct. 27, 2019	1900	40.20	9.91	39.64	-1.39	5d036	3650	861
Oct. 28, 2019	2300	49.10	12.2	48.80	-0.61	1004	3650	861
Oct. 28, 2019	2450	52.70	12.7	50.80	-3.61	737	3650	861
Oct. 31, 2019	2600	57.30	13.9	55.60	-2.97	1020	3650	861
Nov. 01, 2019	5250	80.70	7.86	78.60	-2.60	1019	3650	861
Nov. 01, 2019	5600	85.80	8.26	82.60	-3.73	1019	3650	861
Oct. 30, 2019	5750	81.50	7.63	76.30	-6.38	1019	3650	861

**Note:**

Comparing to the reference SAR value provided by SPEAG, the validation data should be within its specification of 10 %. The result indicates the system check can meet the variation criterion and the plots can be referred to Appendix A of this report.

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## 4.6 Maximum Output Power

### 4.6.1 Maximum Target Conducted Power

The maximum conducted average power (Unit: dBm) including tune-up tolerance is shown as below.

#### <WWAN T77W968 Module>

Mode	WCDMA Band II	WCDMA Band IV
RMC 12.2K	24.5	24.5
HSDPA / HSUPA / DC-HSDPA	23.5	23.5

Mode	WCDMA Band V (without Power Reduction)	WCDMA Band V (with Power Reduction)	Power Reduction (dB)
RMC 12.2K	24.5	23.5	1
HSDPA / HSUPA / DC-HSDPA	23.5	23.5	-

Mode	LTE 2	LTE 12	LTE 17	LTE 25
Maximum Target Power	24.5	24.5	24.5	24.5

Mode	LTE 30
Maximum Target Power	23.0

Mode	LTE 4 (without Power Reduction)	LTE 4 (with Power Reduction)	Power Reduction (dB)
Maximum Target Power	24.5	22.0	2.5

Mode	LTE 5 (without Power Reduction)	LTE 5 (with Power Reduction)	Power Reduction (dB)
Maximum Target Power	24.5	23.0	1.5

Mode	LTE 7 (without Power Reduction)	LTE 7 (with Power Reduction)	Power Reduction (dB)
Maximum Target Power	24.5	21.0	3.5

Mode	LTE 13 (without Power Reduction)	LTE 13 (with Power Reduction)	Power Reduction (dB)
Maximum Target Power	24.5	23.0	1.5

Mode	LTE 14 (without Power Reduction)	LTE 14 (with Power Reduction)	Power Reduction (dB)
Maximum Target Power	24.5	23.0	1.5

Mode	LTE 26 (without Power Reduction)	LTE 26 (with Power Reduction)	Power Reduction (dB)
Maximum Target Power	24.5	23.0	1.5

Mode	LTE 38 (without Power Reduction)	LTE 38 (with Power Reduction)	Power Reduction (dB)
Maximum Target Power	24.5	23.0	1.5

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Mode	LTE 41 (without Power Reduction)	LTE 41 (with Power Reduction)	Power Reduction (dB)
Maximum Target Power	24.5	23.0	1.5

Mode	LTE 66 (without Power Reduction)	LTE 66 (with Power Reduction)	Power Reduction (dB)
Maximum Target Power	24.5	22.0	2.5

## <BT/WLAN AX200NGW Module>

### <WLAN 2.4G>

Mode	Channel	Frequency (MHz)	Tune up Power (Ant-0)	Tune up Power (Ant-1)	Tune up Power (Ant-0 + Ant-1)
802.11b	1	2412	15.0	15.0	18.0
	6	2437	15.0	15.0	18.0
	11	2462	15.0	15.0	18.0
802.11g	1	2412	15.0	15.0	18.0
	6	2437	15.0	15.0	18.0
	11	2462	15.0	15.0	18.0
802.11n (HT20)	1	2412	15.0	15.0	18.0
	6	2437	15.0	15.0	18.0
	11	2462	15.0	15.0	18.0
802.11n (HT40)	3	2422	15.0	15.0	18.0
	6	2437	15.0	15.0	18.0
	9	2452	15.0	15.0	18.0
802.11ax (HE20)	1	2412	15.0	15.0	18.0
	6	2437	15.0	15.0	18.0
	11	2462	15.0	15.0	18.0
802.11ax (HE40)	3	2422	15.0	15.0	18.0
	6	2437	15.0	15.0	18.0
	9	2452	15.0	15.0	18.0

### <WLAN 5.2G>

Mode	Channel	Frequency (MHz)	Tune up Power (Ant-0)	Tune up Power (Ant-1)	Tune up Power (Ant-0 + Ant-1)
802.11a	36	5180	13.5	13.5	16.5
	40	5200	13.5	13.5	16.5
	44	5220	13.5	13.5	16.5
	48	5240	13.5	13.5	16.5
802.11n (HT20)	36	5180	13.5	13.5	16.5
	40	5200	13.5	13.5	16.5
	44	5220	13.5	13.5	16.5
	48	5240	13.5	13.5	16.5
802.11n (HT40)	38	5190	13.5	13.5	16.5
	46	5230	13.5	13.5	16.5
802.11ac (VHT80)	42	5210	13.5	13.5	16.5
802.11ax (HE20)	36	5180	13.5	13.5	16.5
	40	5200	13.5	13.5	16.5
	44	5220	13.5	13.5	16.5
	48	5240	13.5	13.5	16.5
802.11ax (HE40)	38	5190	13.5	13.5	16.5
	46	5230	13.5	13.5	16.5
802.11ax (HE80)	42	5210	13.5	13.5	16.5

<WLAN 5.3G>

Mode	Channel	Frequency (MHz)	Tune up Power (Ant-0)	Tune up Power (Ant-1)	Tune up Power (Ant-0 + Ant-1)
802.11a	52	5260	13.5	13.5	16.5
	56	5280	13.5	13.5	16.5
	60	5300	13.5	13.5	16.5
	64	5320	13.5	13.5	16.5
802.11n (HT20)	52	5260	13.5	13.5	16.5
	56	5280	13.5	13.5	16.5
	60	5300	13.5	13.5	16.5
	64	5320	13.5	13.5	16.5
802.11n (HT40)	54	5270	13.5	13.5	16.5
	62	5310	13.5	13.5	16.5
802.11ac (VHT80)	58	5290	13.5	13.5	16.5
802.11ac (VHT160)	50	5250	13.5	13.5	16.5
802.11ax (HE20)	52	5260	13.5	13.5	16.5
	56	5280	13.5	13.5	16.5
	60	5300	13.5	13.5	16.5
	64	5320	13.5	13.5	16.5
802.11ax (HE40)	54	5270	13.5	13.5	16.5
	62	5310	13.5	13.5	16.5
802.11ax (HE80)	58	5290	13.5	13.5	16.5
802.11ax (HE160)	50	5250	13.5	13.5	16.5



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## <WLAN 5.6G>

Mode	Channel	Frequency (MHz)	Tune up Power (Ant-0)	Tune up Power (Ant-1)	Tune up Power (Ant-0 + Ant-1)
802.11a	100	5500	13.5	13.5	16.5
	116	5580	13.5	13.5	16.5
	120	5600	13.5	13.5	16.5
	124	5620	13.5	13.5	16.5
	132	5660	13.5	13.5	16.5
	140	5700	13.5	13.5	16.5
	144	5720	13.5	13.5	16.5
802.11n (HT20)	100	5500	13.5	13.5	16.5
	116	5580	13.5	13.5	16.5
	120	5600	13.5	13.5	16.5
	124	5620	13.5	13.5	16.5
	132	5660	13.5	13.5	16.5
	140	5700	13.5	13.5	16.5
	144	5720	13.5	13.5	16.5
802.11n (HT40)	102	5510	13.5	13.5	16.5
	110	5550	13.5	13.5	16.5
	118	5590	13.5	13.5	16.5
	126	5630	13.5	13.5	16.5
	134	5670	13.5	13.5	16.5
	142	5710	13.5	13.5	16.5
802.11ac (VHT80)	106	5530	13.5	13.5	16.5
	122	5610	13.5	13.5	16.5
	138	5690	13.5	13.5	16.5
802.11ac (VHT160)	114	5570	13.5	13.5	16.5
802.11ax (HE20)	100	5500	13.5	13.5	16.5
	116	5580	13.5	13.5	16.5
	120	5600	13.5	13.5	16.5
	124	5620	13.5	13.5	16.5
	132	5660	13.5	13.5	16.5
	140	5700	13.5	13.5	16.5
	144	5720	13.5	13.5	16.5
802.11ax (HE40)	102	5510	13.5	13.5	16.5
	110	5550	13.5	13.5	16.5
	118	5590	13.5	13.5	16.5
	126	5630	13.5	13.5	16.5
	134	5670	13.5	13.5	16.5
	142	5710	13.5	13.5	16.5
802.11ax (HE80)	106	5530	13.5	13.5	16.5
	122	5610	13.5	13.5	16.5
	138	5690	13.5	13.5	16.5
802.11ax (HE160)	114	5570	13.5	13.5	16.5

<WLAN 5.8G>

Mode	Channel	Frequency (MHz)	Tune up Power (Ant-0)	Tune up Power (Ant-1)	Tune up Power (Ant-0 + Ant-1)
802.11a	149	5745	13.5	13.5	16.5
	153	5765	13.5	13.5	16.5
	157	5785	13.5	13.5	16.5
	161	5805	13.5	13.5	16.5
	165	5825	13.5	13.5	16.5
802.11n (HT20)	149	5745	13.5	13.5	16.5
	153	5765	13.5	13.5	16.5
	157	5785	13.5	13.5	16.5
	161	5805	13.5	13.5	16.5
	165	5825	13.5	13.5	16.5
802.11n (HT40)	151	5755	13.5	13.5	16.5
	159	5795	13.5	13.5	16.5
802.11ac (VHT80)	155	5775	13.5	13.5	16.5
802.11ax (HE20)	149	5745	13.5	13.5	16.5
	153	5765	13.5	13.5	16.5
	157	5785	13.5	13.5	16.5
	161	5805	13.5	13.5	16.5
	165	5825	13.5	13.5	16.5
802.11ax (HE40)	151	5755	13.5	13.5	16.5
	159	5795	13.5	13.5	16.5
802.11ax (HE80)	155	5775	13.5	13.5	16.5

<Bluetooth>

Mode	Channel	Frequency (MHz)	Tune up Power
Bluetooth EDR	0	2402	11.0
	39	2441	11.0
	78	2480	11.0
Bluetooth LE	0	2402	10.5
	19	2440	10.5
	39	2480	10.5

# FCC SAR Test Report

## 4.6.2 Measured Conducted Power Result

The measuring conducted average power (Unit: dBm) is shown as below.

### <WWAN T77W968 Module>

Band Channel	WCDMA Band II			WCDMA Band IV			3GPP MPR (dB)
	9262 Frequency (MHz)	9400	9538	1312	1413	1513	
RMC 12.2K	1852.4	1880.0	1907.6	1712.4	1732.6	1752.6	-
HSDPA Subtest-1	23.58	23.62	23.54	23.67	23.76	23.60	0
HSDPA Subtest-2	22.60	22.66	22.61	22.70	22.74	22.59	0
HSDPA Subtest-3	22.62	22.70	22.66	22.72	22.69	22.65	0.5
HSDPA Subtest-4	22.11	22.16	22.14	22.20	22.17	21.81	0.5
DC-HSDPA Subtest-1	22.15	22.18	22.16	22.23	22.21	22.16	0
DC-HSDPA Subtest-2	22.49	22.59	22.51	22.60	22.65	22.48	0
DC-HSDPA Subtest-3	22.53	22.60	22.55	22.63	22.57	22.55	0.5
DC-HSDPA Subtest-4	22.02	22.04	22.05	22.10	22.08	21.70	0.5
HSUPA Subtest-1	22.06	22.07	22.05	22.11	22.11	22.08	0
HSUPA Subtest-2	22.55	22.62	22.59	22.70	22.65	22.62	2
HSUPA Subtest-3	20.54	20.65	20.61	20.67	20.62	20.60	1
HSUPA Subtest-4	21.65	21.60	21.57	21.70	21.65	21.60	2
HSUPA Subtest-5	20.56	20.60	20.50	20.68	20.68	20.65	0

Band Channel	WCDMA Band V			3GPP MPR (dB)
	4132 Frequency (MHz)	4182	4233	
<b>EUT without Power Reduction (P-Sensor NOT Triggered)</b>				
RMC 12.2K	826.4	836.4	846.6	-
HSDPA Subtest-1	24.04	24.17	23.97	0
HSDPA Subtest-2	23.02	23.21	22.91	0
HSDPA Subtest-3	23.02	23.21	22.98	0.5
HSDPA Subtest-4	22.52	22.73	22.49	0.5
DC-HSDPA Subtest-1	22.57	22.72	22.48	0
DC-HSDPA Subtest-2	22.89	23.10	22.81	0
DC-HSDPA Subtest-3	22.88	23.10	22.85	0.5
DC-HSDPA Subtest-4	22.40	22.60	22.40	0.5
HSUPA Subtest-1	22.45	22.61	22.41	0
HSUPA Subtest-2	23.00	23.13	22.98	2
HSUPA Subtest-3	20.98	21.22	20.92	1
HSUPA Subtest-4	21.98	22.21	22.00	2
HSUPA Subtest-5	20.96	21.29	20.90	0
<b>EUT with Power Reduction (P-Sensor Triggered)</b>				
RMC 12.2K	23.00	23.20	23.00	-
HSDPA Subtest-1	23.44	23.48	23.41	-
HSDPA Subtest-2	22.50	22.56	22.33	-
HSDPA Subtest-3	22.50	22.57	22.38	-
HSDPA Subtest-4	22.06	22.13	21.92	-
DC-HSDPA Subtest-1	22.02	22.11	21.84	-
DC-HSDPA Subtest-2	22.43	22.49	22.26	-
DC-HSDPA Subtest-3	22.42	22.49	22.30	-
DC-HSDPA Subtest-4	21.99	22.06	21.85	-
HSUPA Subtest-1	21.94	22.03	21.76	-
HSUPA Subtest-2	22.48	22.56	22.29	-
HSUPA Subtest-3	20.53	20.55	20.32	-
HSUPA Subtest-4	21.54	21.62	21.29	-
HSUPA Subtest-5	20.52	20.54	20.35	-

# FCC SAR Test Report

LTE Band 2															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		18700	18900	19100				Channel		18675	18900	19125	
		Frequency (MHz)		1860.0	1880.0	1900.0				Frequency (MHz)		1857.5	1880.0	1902.5	
20M	QPSK	1	0	23.50	23.45	23.90	0	15M	QPSK	1	0	23.47	23.41	23.84	0
		1	50	23.33	23.23	23.65	0			1	37	23.29	23.22	23.59	0
		1	99	23.38	23.30	23.70	0			1	74	23.28	23.30	23.68	0
		50	0	22.42	22.33	22.75	1			36	0	22.39	22.32	22.65	1
		50	25	22.35	22.27	22.68	1			36	19	22.28	22.18	22.63	1
		50	50	22.26	22.20	22.60	1			36	39	22.20	22.20	22.52	1
	100	0	22.40	22.30	22.70	1	75		0	22.31	22.29	22.70	1		
	16QAM	1	0	22.89	22.80	23.20	1		16QAM	1	0	22.80	22.73	23.17	1
		1	50	22.56	22.50	22.90	1			1	37	22.54	22.42	22.83	1
		1	99	22.67	22.61	23.02	1			1	74	22.66	22.57	22.94	1
		50	0	21.56	21.50	21.90	2			36	0	21.51	21.43	21.84	2
		50	25	21.48	21.50	21.80	2			36	19	21.41	21.40	21.72	2
		50	50	21.40	21.40	21.70	2			36	39	21.30	21.37	21.67	2
	100	0	21.50	21.40	21.80	2	75		0	21.45	21.31	21.76	2		
	64QAM	1	0	21.75	21.68	22.08	2		64QAM	1	0	21.70	21.58	22.00	2
		1	50	21.54	21.50	21.88	2			1	37	21.50	21.48	21.86	2
		1	99	21.55	21.50	21.90	2			1	74	21.46	21.45	21.89	2
		50	0	20.55	20.47	20.87	3			36	0	20.50	20.41	20.80	3
		50	25	20.46	20.40	20.78	3			36	19	20.38	20.33	20.74	3
		50	50	20.41	20.35	20.72	3			36	39	20.40	20.33	20.72	3
	100	0	20.50	20.40	20.80	3	75		0	20.50	20.39	20.70	3		
10M	QPSK	1	0	23.36	23.23	23.73	0	5M	QPSK	1	0	23.40	23.37	23.78	0
		1	24	23.17	23.00	23.55	0			1	12	23.09	23.04	23.51	0
		1	49	23.25	23.13	23.56	0			1	24	23.24	23.18	23.49	0
		25	0	22.33	22.28	22.63	1			12	0	22.29	22.23	22.54	1
		25	12	22.26	22.16	22.56	1			12	6	22.25	22.10	22.52	1
		25	25	22.17	22.00	22.45	1			12	13	22.18	22.13	22.29	1
	50	0	22.35	22.06	22.58	1	25		0	22.23	22.17	22.45	1		
	16QAM	1	0	22.77	22.56	23.09	1		16QAM	1	0	22.74	22.64	23.10	1
		1	24	22.42	22.39	22.75	1			1	12	22.49	22.40	22.83	1
		1	49	22.62	22.52	22.79	1			1	24	22.48	22.42	22.78	1
		25	0	21.51	21.36	21.79	2			12	0	21.54	21.37	21.77	2
		25	12	21.35	21.37	21.70	2			12	6	21.38	21.43	21.70	2
		25	25	21.16	21.23	21.61	2			12	13	21.30	21.25	21.51	2
	50	0	21.36	21.29	21.71	2	25		0	21.32	21.22	21.67	2		
	64QAM	1	0	21.64	21.58	22.00	2		64QAM	1	0	21.68	21.45	22.04	2
		1	24	21.39	21.42	21.74	2			1	12	21.32	21.38	21.74	2
		1	49	21.55	21.37	21.66	2			1	24	21.49	21.42	21.71	2
		25	0	20.31	20.40	20.72	3			12	0	20.41	20.31	20.66	3
		25	12	20.28	20.30	20.68	3			12	6	20.40	20.33	20.64	3
		25	25	20.33	20.13	20.52	3			12	13	20.27	20.34	20.52	3
	50	0	20.26	20.29	20.61	3	25		0	20.41	20.33	20.74	3		
3M	QPSK	1	0	23.30	23.25	23.87	0	1.4M	QPSK	1	0	23.29	23.32	23.79	0
		1	7	23.18	23.13	23.50	0			1	2	23.29	22.99	23.52	0
		1	14	23.24	23.20	23.58	0			1	5	23.31	23.18	23.56	0
		8	0	22.37	22.23	22.72	1			3	0	23.34	23.22	23.64	0
		8	3	22.20	22.14	22.45	1			3	1	23.31	23.17	23.50	0
		8	7	22.23	22.03	22.47	1			3	3	23.22	23.13	23.60	0
	15	0	22.33	22.10	22.51	1	6		0	22.18	22.14	22.58	1		
	16QAM	1	0	22.77	22.63	23.06	1		16QAM	1	0	22.68	22.70	23.02	1
		1	7	22.34	22.44	22.71	1			1	2	22.51	22.38	22.80	1
		1	14	22.50	22.49	22.94	1			1	5	22.50	22.42	22.80	1
		8	0	21.48	21.42	21.80	2			3	0	22.38	22.32	22.89	1
		8	3	21.26	21.38	21.67	2			3	1	22.41	22.43	22.67	1
		8	7	21.22	21.22	21.60	2			3	3	22.32	22.22	22.56	1
	15	0	21.34	21.17	21.71	2	6		0	21.39	21.34	21.59	2		
	64QAM	1	0	21.75	21.53	22.03	2		64QAM	1	0	21.67	21.59	21.89	2
		1	7	21.52	21.32	21.77	2			1	2	21.35	21.35	21.76	2
		1	14	21.41	21.25	21.75	2			1	5	21.48	21.48	21.82	2
		8	0	20.51	20.32	20.80	3			3	0	21.38	21.33	21.66	2
		8	3	20.33	20.24	20.61	3			3	1	21.32	21.25	21.59	2
		8	7	20.32	20.19	20.58	3			3	3	21.34	21.28	21.62	2
	15	0	20.40	20.28	20.76	3	6		0	20.36	20.23	20.75	3		

# FCC SAR Test Report

LTE Band 4																	
EUT without Power Reduction (P-Sensor NOT Triggered)																	
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)		
		Channel		20050	20175	20300				Channel		20025	20175	20325			
		Frequency (MHz)		1720.0	1732.5	1745.0				Frequency (MHz)		1717.5	1732.5	1747.5			
20M	QPSK	1	0	23.56	<b>23.70</b>	23.64	0	15M	QPSK	1	0	23.50	23.69	23.57	0		
		1	50	23.30	23.40	23.37	0			1	37	23.28	23.31	23.37	0		
		1	99	23.20	23.29	23.29	0			1	74	23.13	23.20	23.25	0		
		50	0	22.53	22.60	22.57	1			36	0	22.43	22.54	22.51	1		
		50	25	22.45	22.53	22.49	1			36	19	22.37	22.52	22.40	1		
		50	50	22.31	22.37	22.35	1			36	39	22.27	22.29	22.31	1		
		100	0	22.50	22.55	22.54	1			75	0	22.42	22.51	22.53	1		
	16QAM	1	0	22.92	23.00	22.96	1		16QAM	1	0	22.86	22.95	22.94	1		
		1	50	22.51	22.63	22.60	1			1	37	22.50	22.57	22.55	1		
		1	99	22.53	22.66	22.61	1			1	74	22.48	22.61	22.58	1		
		50	0	21.60	21.70	21.67	2			36	0	21.59	21.70	21.59	2		
		50	25	21.60	21.60	21.57	2			36	19	21.51	21.58	21.54	2		
		50	50	21.40	21.46	21.44	2			36	39	21.35	21.36	21.37	2		
		100	0	21.52	21.60	21.56	2			75	0	21.42	21.56	21.55	2		
	64QAM	1	0	21.85	21.93	21.90	2		64QAM	1	0	21.82	21.83	21.81	2		
		1	50	21.49	21.58	21.54	2			1	37	21.46	21.56	21.48	2		
		1	99	21.50	21.62	21.60	2			1	74	21.42	21.58	21.55	2		
		50	0	20.55	20.65	20.61	3			36	0	20.47	20.61	20.53	3		
		50	25	20.52	20.60	20.58	3			36	19	20.46	20.52	20.57	3		
		50	50	20.39	20.48	20.45	3			36	39	20.34	20.39	20.36	3		
		100	0	20.57	20.65	20.61	3			75	0	20.53	20.59	20.58	3		
	EUT with Power Reduction (P-Sensor Triggered)																
	BW	MCS Index	RB Size	RB Offset	Low	Mid	High		3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
			Channel		20050	20175	20300					Channel		20025	20175	20325	
Frequency (MHz)			1720.0	1732.5	1745.0	Frequency (MHz)		1717.5				1732.5	1747.5				
20M	QPSK	1	0	21.79	21.83	<b>21.92</b>	0	15M	QPSK	1	0	21.70	21.75	21.82	0		
		1	50	21.49	21.53	21.62	0			1	37	21.44	21.46	21.61	0		
		1	99	21.35	21.39	21.48	0			1	74	21.25	21.31	21.38	0		
		50	0	20.71	20.75	20.84	1			36	0	20.64	20.69	20.83	1		
		50	25	20.55	20.59	20.68	1			36	19	20.48	20.56	20.65	1		
		50	50	20.45	20.49	20.58	1			36	39	20.42	20.49	20.52	1		
		100	0	20.63	20.67	20.76	1			75	0	20.53	20.67	20.71	1		
	16QAM	1	0	20.85	20.89	20.98	1		16QAM	1	0	20.82	20.81	20.89	1		
		1	50	20.69	20.73	20.82	1			1	37	20.63	20.68	20.75	1		
		1	99	20.73	20.77	20.86	1			1	74	20.71	20.76	20.82	1		
		50	0	19.78	19.82	19.91	2			36	0	19.69	19.73	19.87	2		
		50	25	19.66	19.70	19.79	2			36	19	19.59	19.61	19.69	2		
		50	50	19.57	19.61	19.70	2			36	39	19.57	19.61	19.70	2		
		100	0	19.69	19.73	19.82	2			75	0	19.68	19.65	19.74	2		
	64QAM	1	0	19.84	19.88	19.97	2		64QAM	1	0	19.79	19.88	19.89	2		
		1	50	19.63	19.67	19.76	2			1	37	19.53	19.57	19.67	2		
		1	99	19.70	19.74	19.83	2			1	74	19.69	19.69	19.75	2		
		50	0	18.76	18.80	18.89	3			36	0	18.71	18.76	18.86	3		
		50	25	18.71	18.75	18.84	3			36	19	18.65	18.72	18.84	3		
		50	50	18.53	18.57	18.66	3			36	39	18.47	18.54	18.58	3		
		100	0	18.74	18.78	18.87	3			75	0	18.73	18.71	18.81	3		

# FCC SAR Test Report

LTE Band 4																	
EUT without Power Reduction (P-Sensor NOT Triggered)																	
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)		
		Channel		20000	20175	20350				Channel		19975	20175	20375			
		Frequency (MHz)		1715.0	1732.5	1750.0				Frequency (MHz)		1712.5	1732.5	1752.5			
10M	QPSK	1	0	23.35	23.57	23.52	0	5M	QPSK	1	0	23.47	23.65	23.37	0		
		1	24	23.19	23.29	23.21	0			1	12	23.19	23.20	23.16	0		
		1	49	23.13	23.12	23.21	0			1	24	23.06	23.19	23.17	0		
		25	0	22.33	22.46	22.53	1			12	0	22.47	22.53	22.32	1		
		25	12	22.28	22.30	22.29	1			12	6	22.23	22.30	22.30	1		
		25	25	22.16	22.22	22.24	1			12	13	22.21	22.30	22.11	1		
	50	0	22.38	22.47	22.38	1	25		0	22.43	22.34	22.33	1				
	16QAM	1	0	22.75	22.81	22.85	1		16QAM	1	0	22.83	22.79	22.91	1		
		1	24	22.32	22.53	22.46	1			1	12	22.51	22.57	22.49	1		
		1	49	22.44	22.61	22.49	1			1	24	22.41	22.54	22.60	1		
		25	0	21.52	21.62	21.52	2			12	0	21.39	21.49	21.60	2		
		25	12	21.43	21.40	21.50	2			12	6	21.50	21.53	21.41	2		
		25	25	21.24	21.25	21.28	2			12	13	21.32	21.40	21.26	2		
	50	0	21.29	21.42	21.45	2	25		0	21.29	21.55	21.44	2				
	64QAM	1	0	21.73	21.75	21.71	2		64QAM	1	0	21.68	21.79	21.75	2		
		1	24	21.35	21.52	21.46	2			1	12	21.36	21.44	21.44	2		
		1	49	21.41	21.47	21.39	2			1	24	21.42	21.49	21.49	2		
		25	0	20.38	20.51	20.52	3			12	0	20.39	20.52	20.46	3		
		25	12	20.37	20.48	20.46	3			12	6	20.45	20.44	20.49	3		
		25	25	20.28	20.29	20.35	3			12	13	20.27	20.35	20.39	3		
	50	0	20.53	20.63	20.44	3	25		0	20.44	20.60	20.57	3				
	EUT with Power Reduction (P-Sensor Triggered)																
	BW	MCS Index	RB Size	RB Offset	Low	Mid	High		3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
			Channel		20000	20175	20350					Channel		19975	20175	20375	
Frequency (MHz)			1715.0	1732.5	1750.0	Frequency (MHz)		1712.5				1732.5	1752.5				
10M	QPSK	1	0	21.62	21.61	21.86	0	5M	QPSK	1	0	21.65	21.65	21.84	0		
		1	24	21.41	21.34	21.48	0			1	12	21.29	21.37	21.49	0		
		1	49	21.11	21.30	21.26	0			1	24	21.28	21.22	21.38	0		
		25	0	20.60	20.59	20.84	1			12	0	20.68	20.63	20.64	1		
		25	12	20.41	20.45	20.47	1			12	6	20.39	20.42	20.54	1		
		25	25	20.32	20.29	20.53	1			12	13	20.36	20.39	20.42	1		
	50	0	20.56	20.57	20.65	1	25		0	20.41	20.53	20.56	1				
	16QAM	1	0	20.76	20.84	20.88	1		16QAM	1	0	20.66	20.75	20.86	1		
		1	24	20.54	20.65	20.64	1			1	12	20.53	20.68	20.70	1		
		1	49	20.60	20.66	20.77	1			1	24	20.54	20.60	20.73	1		
		25	0	19.53	19.62	19.73	2			12	0	19.70	19.73	19.70	2		
		25	12	19.44	19.58	19.70	2			12	6	19.51	19.48	19.64	2		
		25	25	19.39	19.58	19.63	2			12	13	19.36	19.48	19.56	2		
	50	0	19.50	19.65	19.75	2	25		0	19.54	19.58	19.70	2				
	64QAM	1	0	19.59	19.81	19.91	2		64QAM	1	0	19.72	19.68	19.86	2		
		1	24	19.53	19.47	19.64	2			1	12	19.56	19.54	19.66	2		
		1	49	19.60	19.62	19.70	2			1	24	19.62	19.71	19.64	2		
		25	0	18.58	18.69	18.78	3			12	0	18.74	18.72	18.75	3		
		25	12	18.60	18.59	18.72	3			12	6	18.55	18.66	18.75	3		
		25	25	18.39	18.53	18.59	3			12	13	18.32	18.43	18.58	3		
	50	0	18.64	18.57	18.63	3	25		0	18.59	18.60	18.80	3				

# FCC SAR Test Report

LTE Band 4																	
EUT without Power Reduction (P-Sensor NOT Triggered)																	
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)		
		Channel		19965	20175	20385				Channel		19957	20175	20393			
		Frequency (MHz)		1711.5	1732.5	1753.5				Frequency (MHz)		1710.7	1732.5	1754.3			
3M	QPSK	1	0	23.44	23.66	23.51	0	1.4M	QPSK	1	0	23.45	23.54	23.51	0		
		1	7	23.12	23.29	23.21	0			1	2	23.26	23.27	23.17	0		
		1	14	23.11	23.16	23.08	0			1	5	23.11	23.22	23.16	0		
		8	0	22.42	22.54	22.51	1			3	0	23.34	23.37	23.42	0		
		8	3	22.21	22.45	22.31	1			3	1	23.33	23.39	23.33	0		
		8	7	22.09	22.24	22.27	1			3	3	23.23	23.28	23.11	0		
		15	0	22.33	22.41	22.40	1			6	0	22.41	22.42	22.39	1		
	16QAM	1	0	22.82	22.83	22.90	1		16QAM	1	0	22.89	22.80	22.85	1		
		1	7	22.31	22.56	22.51	1			1	2	22.28	22.59	22.44	1		
		1	14	22.35	22.64	22.45	1			1	5	22.45	22.53	22.41	1		
		8	0	21.44	21.50	21.57	2			3	0	22.49	22.49	22.62	1		
		8	3	21.54	21.45	21.43	2			3	1	22.39	22.48	22.47	1		
		8	7	21.30	21.33	21.36	2			3	3	22.32	22.42	22.39	1		
		15	0	21.43	21.48	21.38	2			6	0	21.30	21.46	21.47	2		
	64QAM	1	0	21.74	21.88	21.78	2		64QAM	1	0	21.77	21.77	21.81	2		
		1	7	21.34	21.47	21.43	2			1	2	21.27	21.41	21.31	2		
		1	14	21.34	21.61	21.50	2			1	5	21.28	21.40	21.38	2		
		8	0	20.35	20.45	20.43	3			3	0	21.43	21.51	21.52	2		
		8	3	20.52	20.44	20.47	3			3	1	21.43	21.43	21.57	2		
		8	7	20.19	20.28	20.35	3			3	3	21.24	21.27	21.24	2		
		15	0	20.42	20.56	20.55	3			6	0	20.37	20.56	20.53	3		
	EUT with Power Reduction (P-Sensor Triggered)																
	BW	MCS Index	RB Size	RB Offset	Low	Mid	High		3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
			Channel		19965	20175	20385					Channel		19957	20175	20393	
Frequency (MHz)			1711.5	1732.5	1753.5	Frequency (MHz)		1710.7				1732.5	1754.3				
3M	QPSK	1	0	21.70	21.74	21.73	0	1.4M	QPSK	1	0	21.69	21.75	21.73	0		
		1	7	21.32	21.37	21.52	0			1	2	21.38	21.41	21.52	0		
		1	14	21.27	21.30	21.43	0			1	5	21.26	21.17	21.42	0		
		8	0	20.63	20.64	20.72	1			3	0	21.61	21.58	21.76	0		
		8	3	20.37	20.44	20.58	1			3	1	21.44	21.50	21.52	0		
		8	7	20.38	20.36	20.45	1			3	3	21.39	21.37	21.49	0		
		15	0	20.43	20.52	20.72	1			6	0	20.60	20.51	20.60	1		
	16QAM	1	0	20.77	20.83	20.82	1		16QAM	1	0	20.73	20.77	20.88	1		
		1	7	20.56	20.59	20.76	1			1	2	20.44	20.54	20.66	1		
		1	14	20.52	20.68	20.66	1			1	5	20.54	20.59	20.68	1		
		8	0	19.62	19.74	19.80	2			3	0	20.69	20.74	20.66	1		
		8	3	19.49	19.53	19.60	2			3	1	20.58	20.63	20.67	1		
		8	7	19.35	19.51	19.49	2			3	3	20.49	20.60	20.59	1		
		15	0	19.54	19.57	19.67	2			6	0	19.62	19.68	19.58	2		
	64QAM	1	0	19.73	19.73	19.83	2		64QAM	1	0	19.67	19.82	19.83	2		
		1	7	19.51	19.50	19.74	2			1	2	19.54	19.61	19.66	2		
		1	14	19.53	19.59	19.64	2			1	5	19.52	19.64	19.67	2		
		8	0	18.66	18.72	18.83	3			3	0	19.68	19.70	19.88	2		
		8	3	18.51	18.62	18.66	3			3	1	19.56	19.59	19.62	2		
		8	7	18.39	18.35	18.58	3			3	3	19.35	19.50	19.51	2		
		15	0	18.63	18.74	18.71	3			6	0	18.66	18.68	18.86	3		

# FCC SAR Test Report

LTE Band 5																	
EUT without Power Reduction (P-Sensor NOT Triggered)																	
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)		
		Channel		20450	20525	20600				Channel		20425	20525	20625			
		Frequency (MHz)		829.0	836.5	844.0				Frequency (MHz)		826.5	836.5	846.5			
10M	QPSK	1	0	23.30	23.70	23.80	0	5M	QPSK	1	0	23.16	23.60	23.51	0		
		1	24	23.38	23.67	23.75	0			1	12	23.22	23.62	23.50	0		
		1	49	23.31	23.52	23.60	0			1	24	23.18	23.47	23.41	0		
		25	0	22.46	22.74	22.84	1			12	0	22.29	22.66	22.69	1		
		25	12	22.45	22.73	22.80	1			12	6	22.31	22.58	22.67	1		
		25	25	22.37	22.66	22.74	1			12	13	22.21	22.54	22.56	1		
	16QAM	50	0	22.40	22.75	22.80	1		25	0	22.19	22.59	22.50	1			
		1	0	22.80	22.80	23.12	1		16QAM	1	0	22.62	22.67	23.00	1		
		1	24	22.47	22.47	22.90	1			1	12	22.24	22.35	22.84	1		
		1	49	22.62	22.55	23.00	1			1	24	22.46	22.49	22.86	1		
		25	0	21.47	21.41	21.90	2			12	0	21.26	21.36	21.82	2		
		25	12	21.42	21.44	21.75	2			12	6	21.24	21.22	21.52	2		
	25	25	21.35	21.32	21.68	2	12			13	21.30	21.26	21.54	2			
	64QAM	50	0	21.46	21.37	21.78	2		25	0	21.24	21.17	21.60	2			
		1	0	21.68	21.61	22.00	2		64QAM	1	0	21.55	21.46	21.90	2		
		1	24	21.49	21.46	21.80	2			1	12	21.35	21.38	21.71	2		
		1	49	21.48	21.42	21.89	2			1	24	21.28	21.21	21.75	2		
		25	0	20.49	20.44	20.87	3			12	0	20.36	20.37	20.73	3		
		25	12	20.40	20.37	20.73	3			12	6	20.30	20.16	20.61	3		
	25	25	20.38	20.28	20.68	3	12			13	20.31	20.07	20.58	3			
	50	0	20.50	20.30	20.77	3	25		0	20.37	20.12	20.69	3				
	EUT with Power Reduction (P-Sensor Triggered)																
	BW	MCS Index	RB Size	RB Offset	Low	Mid	High		3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
			Channel		20450	20525	20600					Channel		20425	20525	20625	
Frequency (MHz)			829.0	836.5	844.0	Frequency (MHz)		826.5				836.5	846.5				
10M	QPSK	1	0	22.66	22.71	22.86	0	5M	QPSK	1	0	22.65	22.62	22.85	0		
		1	24	22.65	22.70	22.85	0			1	12	22.60	22.61	22.82	0		
		1	49	22.60	22.65	22.80	0			1	24	22.59	22.59	22.74	0		
		25	0	21.82	21.87	21.92	1			12	0	21.77	21.80	21.96	1		
		25	12	21.77	21.82	21.91	1			12	6	21.67	21.82	21.89	1		
		25	25	21.74	21.79	21.89	1			12	13	21.71	21.78	21.89	1		
	16QAM	50	0	21.78	21.83	21.98	1		25	0	21.69	21.73	21.95	1			
		1	0	21.81	21.86	21.99	1		16QAM	1	0	21.79	21.81	21.68	1		
		1	24	21.79	21.84	21.97	1			1	12	21.74	21.74	21.99	1		
		1	49	21.73	21.78	21.93	1			1	24	21.64	21.74	21.87	1		
		25	0	20.90	20.95	20.95	2			12	0	20.81	20.90	20.91	2		
		25	12	20.89	20.94	20.93	2			12	6	20.83	20.90	20.85	2		
	25	25	20.85	20.90	20.91	2	12			13	20.77	20.86	20.87	2			
	64QAM	50	0	20.88	20.93	20.96	2		25	0	20.78	20.83	20.90	2			
		1	0	19.78	19.83	19.98	3		64QAM	1	0	19.78	19.77	19.89	3		
		1	24	19.82	19.87	19.86	3			1	12	19.80	19.80	19.82	3		
		1	49	19.83	19.88	19.85	3			1	24	19.77	19.87	19.78	3		
		25	0	19.90	19.95	19.83	3			12	0	19.85	19.93	19.82	3		
		25	12	19.91	19.96	19.81	3			12	6	19.82	19.87	19.72	3		
	25	25	19.81	19.86	19.80	3	12			13	19.81	19.80	19.79	3			
	50	0	19.86	19.91	19.86	3	25		0	19.86	19.81	19.78	3				



# FCC SAR Test Report

LTE Band 5															
EUT without Power Reduction (P-Sensor NOT Triggered)															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		20415	20525	20635				Channel		20407	20525	20643	
		Frequency (MHz)		825.5	836.5	847.5				Frequency (MHz)		824.7	836.5	848.3	
3M	QPSK	1	0	23.16	23.58	23.73	0	1.4M	QPSK	1	0	23.18	23.67	23.61	0
		1	7	23.26	23.47	23.55	0			1	2	23.23	23.46	23.64	0
		1	14	23.21	23.49	23.44	0			1	5	23.31	23.38	23.55	0
		8	0	22.38	22.59	22.73	1			3	0	23.44	23.72	23.73	0
		8	3	22.32	22.67	22.66	1			3	1	23.27	23.57	23.75	0
		8	7	22.14	22.46	22.64	1			3	3	23.26	23.57	23.67	0
		15	0	22.28	22.63	22.70	1			6	0	22.20	22.66	22.61	1
	16QAM	1	0	22.68	22.65	23.08	1		16QAM	1	0	22.74	22.64	22.95	1
		1	7	22.34	22.44	22.77	1			1	2	22.30	22.27	22.84	1
		1	14	22.51	22.35	22.87	1			1	5	22.43	22.51	22.87	1
		8	0	21.36	21.34	21.77	2			3	0	22.36	22.27	22.72	1
		8	3	21.34	21.22	21.62	2			3	1	22.31	22.21	22.58	1
		8	7	21.30	21.16	21.57	2			3	3	22.26	22.29	22.62	1
	64QAM	15	0	21.22	21.31	21.59	2		64QAM	6	0	21.38	21.22	21.68	2
		1	0	21.54	21.46	21.90	2			1	0	21.60	21.47	21.85	2
		1	7	21.32	21.27	21.74	2			1	2	21.32	21.32	21.65	2
		1	14	21.30	21.33	21.72	2			1	5	21.32	21.36	21.82	2
		8	0	20.43	20.36	20.69	3			3	0	21.35	21.28	21.67	2
		8	3	20.21	20.23	20.67	3			3	1	21.31	21.31	21.57	2
		8	7	20.20	20.20	20.53	3			3	3	21.23	21.18	21.60	2
		15	0	20.39	20.16	20.60	3			6	0	20.47	20.27	20.54	3
EUT with Power Reduction (P-Sensor Triggered)															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		20415	20525	20635				Channel		20407	20525	20643	
		Frequency (MHz)		825.5	836.5	847.5				Frequency (MHz)		824.7	836.5	848.3	
3M	QPSK	1	0	22.58	22.68	22.67	0	1.4M	QPSK	1	0	22.57	22.51	22.74	0
		1	7	22.55	22.68	22.72	0			1	2	22.50	22.67	22.73	0
		1	14	22.40	22.55	22.65	0			1	5	22.52	22.44	22.63	0
		8	0	21.63	21.73	21.95	1			3	0	21.72	21.68	21.82	1
		8	3	21.73	21.71	21.74	1			3	1	21.63	21.65	21.87	1
		8	7	21.65	21.69	21.83	1			3	3	21.63	21.75	21.81	1
		15	0	21.69	21.70	21.85	1			6	0	21.61	21.71	21.86	1
	16QAM	1	0	21.63	21.69	21.85	1		16QAM	1	0	21.73	21.80	21.87	1
		1	7	21.64	21.61	21.77	1			1	2	21.70	21.83	21.92	1
		1	14	21.70	21.71	21.79	1			1	5	21.64	21.60	21.83	1
		8	0	20.86	20.81	20.77	2			3	0	20.81	20.72	20.73	2
		8	3	20.71	20.73	20.82	2			3	1	20.86	20.80	20.77	2
		8	7	20.68	20.80	20.86	2			3	3	20.72	20.68	20.86	2
	64QAM	15	0	20.74	20.82	20.93	2		64QAM	6	0	20.83	20.76	20.80	2
		1	0	19.69	19.63	19.78	3			1	0	19.65	19.75	19.89	3
		1	7	19.58	19.72	19.73	3			1	2	19.77	19.75	19.79	3
		1	14	19.68	19.65	19.65	3			1	5	19.74	19.81	19.64	3
		8	0	19.79	19.90	19.71	3			3	0	19.68	19.79	19.73	3
		8	3	19.82	19.76	19.71	3			3	1	19.85	19.86	19.65	3
		8	7	19.72	19.74	19.68	3			3	3	19.66	19.80	19.72	3
		15	0	19.83	19.79	19.67	3			6	0	19.64	19.77	19.84	3

# FCC SAR Test Report

LTE Band 7																	
EUT without Power Reduction (P-Sensor NOT Triggered)																	
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)		
		Channel		20850	21100	21350				Channel		20825	21100	21375			
		Frequency (MHz)		2510.0	2535.0	2560.0				Frequency (MHz)		2507.5	2535.0	2562.5			
20M	QPSK	1	0	24.00	23.94	23.96	0	15M	QPSK	1	0	23.91	23.86	23.91	0		
		1	50	23.80	23.71	22.77	0			1	37	23.76	23.69	22.77	0		
		1	99	23.60	23.50	23.59	0			1	74	23.60	23.45	23.51	0		
		50	0	22.93	22.85	22.87	1			36	0	22.86	22.79	22.82	1		
		50	25	22.91	22.85	22.88	1			36	19	22.90	22.84	22.87	1		
		50	50	22.82	22.75	22.79	1			36	39	22.74	22.69	22.70	1		
		100	0	22.90	22.86	22.89	1			75	0	22.84	22.80	22.79	1		
	16QAM	1	0	23.40	23.34	23.37	1		16QAM	1	0	23.37	23.24	23.27	1		
		1	50	23.25	23.20	23.25	1			1	37	23.21	23.19	23.16	1		
		1	99	23.15	23.11	23.13	1			1	74	23.08	23.05	23.06	1		
		50	0	22.15	22.12	22.15	2			36	0	22.07	22.02	22.14	2		
		50	25	22.03	21.98	22.01	2			36	19	21.93	21.98	21.94	2		
		50	50	21.90	21.85	21.90	2			36	39	21.87	21.79	21.80	2		
		100	0	21.90	21.88	21.90	2			75	0	21.84	21.86	21.80	2		
	64QAM	1	0	22.26	22.22	22.25	2		64QAM	1	0	22.21	22.21	22.21	2		
		1	50	22.00	21.94	21.98	2			1	37	21.91	21.93	21.97	2		
		1	99	21.89	21.85	21.89	2			1	74	21.79	21.79	21.82	2		
		50	0	21.05	21.00	21.03	3			36	0	21.04	20.95	20.97	3		
		50	25	20.96	20.91	20.95	3			36	19	20.89	20.89	20.90	3		
		50	50	20.85	20.83	20.85	3			36	39	20.76	20.74	20.75	3		
		100	0	20.95	20.90	20.93	3			75	0	20.88	20.87	20.84	3		
	EUT with Power Reduction (P-Sensor Triggered)																
	BW	MCS Index	RB Size	RB Offset	Low	Mid	High		3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
			Channel		20850	21100	21350					Channel		20825	21100	21375	
Frequency (MHz)			2510.0	2535.0	2560.0	Frequency (MHz)		2507.5				2535.0	2562.5				
20M	QPSK	1	0	20.63	20.42	20.44	0	15M	QPSK	1	0	20.42	20.60	20.38	0		
		1	50	20.56	20.35	20.37	0			1	37	20.34	20.49	20.36	0		
		1	99	20.38	20.31	20.36	0			1	74	20.31	20.34	20.30	0		
		50	0	20.62	20.41	20.43	0			36	0	20.38	20.53	20.40	0		
		50	25	20.60	20.40	20.41	0			36	19	20.33	20.54	20.39	0		
		50	50	20.48	20.28	20.29	0			36	39	20.17	20.48	20.24	0		
		100	0	20.56	20.35	20.37	0			75	0	20.35	20.56	20.31	0		
	16QAM	1	0	20.39	20.60	20.41	0		16QAM	1	0	20.37	20.58	20.33	0		
		1	50	20.12	20.33	20.14	0			1	37	20.03	20.25	20.08	0		
		1	99	20.11	20.32	20.13	0			1	74	20.05	20.27	20.11	0		
		50	0	19.60	19.81	19.62	1			36	0	19.56	19.73	19.60	1		
		50	25	19.60	19.81	19.62	1			36	19	19.51	19.78	19.62	1		
		50	50	19.47	19.68	19.49	1			36	39	19.37	19.63	19.45	1		
		100	0	19.35	19.56	19.37	1			75	0	19.29	19.56	19.28	1		
	64QAM	1	0	19.93	19.94	19.95	1		64QAM	1	0	19.86	19.88	19.92	1		
		1	50	19.72	19.93	19.74	1			1	37	19.63	19.93	19.73	1		
		1	99	19.55	19.76	19.57	1			1	74	19.48	19.76	19.51	1		
		50	0	18.74	18.95	18.76	2			36	0	18.74	18.95	18.67	2		
		50	25	18.68	18.89	18.70	2			36	19	18.68	18.82	18.64	2		
		50	50	18.62	18.83	18.64	2			36	39	18.54	18.73	18.54	2		
		100	0	18.54	18.75	18.56	2			75	0	18.52	18.74	18.50	2		

# FCC SAR Test Report

LTE Band 7																	
EUT without Power Reduction (P-Sensor NOT Triggered)																	
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)		
		Channel		20800	21100	21400				Channel		20775	21100	21425			
		Frequency (MHz)		2505.0	2535.0	2565.0				Frequency (MHz)		2502.5	2535.0	2567.5			
10M	QPSK	1	0	23.90	23.82	23.83	0	5M	QPSK	1	0	23.92	23.81	23.75	0		
		1	24	23.57	23.57	22.61	0			1	12	23.62	23.63	22.63	0		
		1	49	23.47	23.38	23.41	0			1	24	23.56	23.30	23.50	0		
		25	0	22.80	22.72	22.70	1			12	0	22.75	22.66	22.54	1		
		25	12	22.72	22.77	22.84	1			12	6	22.73	22.72	22.72	1		
		25	25	22.66	22.66	22.64	1			12	13	22.61	22.64	22.53	1		
		50	0	22.73	22.78	22.78	1			25	0	22.78	22.75	22.50	1		
	16QAM	1	0	23.32	23.19	23.14	1		16QAM	1	0	23.29	23.20	23.22	1		
		1	24	23.13	23.07	23.12	1			1	12	23.11	22.98	23.11	1		
		1	49	23.00	22.95	23.07	1			1	24	23.07	23.08	22.94	1		
		25	0	21.93	21.99	22.04	2			12	0	22.02	21.99	22.09	2		
		25	12	21.92	21.88	21.81	2			12	6	21.90	21.85	21.79	2		
		25	25	21.82	21.63	21.73	2			12	13	21.81	21.79	21.72	2		
		50	0	21.73	21.79	21.81	2			25	0	21.80	21.80	21.76	2		
	64QAM	1	0	22.20	22.11	22.01	2		64QAM	1	0	22.15	22.03	22.18	2		
		1	24	21.82	21.80	21.82	2			1	12	21.80	21.74	21.79	2		
		1	49	21.71	21.78	21.73	2			1	24	21.72	21.69	21.68	2		
		25	0	20.84	20.82	20.79	3			12	0	20.87	20.76	20.80	3		
		25	12	20.79	20.83	20.87	3			12	6	20.91	20.78	20.70	3		
		25	25	20.78	20.75	20.74	3			12	13	20.80	20.68	20.69	3		
		50	0	20.87	20.69	20.85	3			25	0	20.88	20.81	20.78	3		
	EUT with Power Reduction (P-Sensor Triggered)																
	BW	MCS Index	RB Size	RB Offset	Low	Mid	High		3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
			Channel		20800	21100	21400					Channel		20775	21100	21425	
Frequency (MHz)			2505.0	2535.0	2565.0	Frequency (MHz)		2502.5				2535.0	2567.5				
10M	QPSK	1	0	20.31	20.49	20.30	0	5M	QPSK	1	0	20.35	20.57	20.23	0		
		1	24	20.22	20.50	20.14	0			1	12	20.21	20.53	20.24	0		
		1	49	20.08	20.33	20.30	0			1	24	20.24	20.20	20.25	0		
		25	0	20.26	20.43	20.26	0			12	0	20.35	20.49	20.19	0		
		25	12	20.24	20.39	20.31	0			12	6	20.28	20.43	20.06	0		
		25	25	20.23	20.31	20.15	0			12	13	20.15	20.32	20.11	0		
		50	0	20.23	20.36	20.28	0			25	0	20.16	20.53	20.30	0		
	16QAM	1	0	20.24	20.53	20.33	0		16QAM	1	0	20.22	20.41	20.28	0		
		1	24	19.94	20.27	19.97	0			1	12	19.94	20.26	20.10	0		
		1	49	20.10	20.25	19.94	0			1	24	20.05	20.25	20.06	0		
		25	0	19.48	19.79	19.48	1			12	0	19.46	19.66	19.48	1		
		25	12	19.49	19.80	19.48	1			12	6	19.44	19.64	19.52	1		
		25	25	19.47	19.55	19.31	1			12	13	19.35	19.48	19.30	1		
		50	0	19.26	19.48	19.29	1			25	0	19.18	19.50	19.16	1		
	64QAM	1	0	19.83	19.80	19.81	1		64QAM	1	0	19.89	19.75	19.85	1		
		1	24	19.59	19.70	19.53	1			1	12	19.57	19.77	19.71	1		
		1	49	19.42	19.69	19.40	1			1	24	19.37	19.68	19.46	1		
		25	0	18.72	18.87	18.61	2			12	0	18.69	18.87	18.67	2		
		25	12	18.58	18.81	18.51	2			12	6	18.60	18.71	18.54	2		
		25	25	18.46	18.71	18.55	2			12	13	18.52	18.64	18.48	2		
		50	0	18.40	18.66	18.46	2			25	0	18.45	18.73	18.43	2		

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LTE Band 12																		
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)			
		Channel		23060	23095	23130				Channel		23035	23095	23155				
		Frequency (MHz)		704.0	707.5	711.0				Frequency (MHz)		701.5	707.5	713.5				
10M	QPSK	1	0	23.80	23.86	23.90	0	5M	QPSK	1	0	23.71	23.69	23.62	0			
		1	24	23.64	23.69	23.75	0			1	12	23.59	23.51	23.56	0			
		1	49	23.61	23.66	23.72	0			1	24	23.50	23.66	23.46	0			
		25	0	22.80	22.87	22.90	1			12	0	22.60	22.69	22.60	1			
		25	12	22.77	22.83	22.86	1			12	6	22.67	22.65	22.71	1			
		25	25	22.60	22.66	22.70	1			12	13	22.51	22.53	22.42	1			
	50	0	22.78	22.80	22.85	1	25		0	22.69	22.66	22.69	1					
	16QAM	1	0	22.89	22.91	22.98	1		16QAM	1	0	22.84	22.68	22.85	1			
		1	24	22.48	22.53	22.58	1			1	12	22.41	22.39	22.40	1			
		1	49	22.43	22.60	22.58	1			1	24	22.36	22.46	22.39	1			
		25	0	21.51	21.66	21.62	2			12	0	21.48	21.62	21.39	2			
		25	12	21.59	21.48	21.51	2			12	6	21.50	21.40	21.41	2			
		25	25	21.35	21.37	21.41	2			12	13	21.26	21.23	21.28	2			
	50	0	21.42	21.53	21.54	2	25		0	21.31	21.46	21.37	2					
	64QAM	1	0	21.82	21.87	21.89	2		64QAM	1	0	21.68	21.71	21.66	2			
		1	24	21.47	21.48	21.54	2			1	12	21.43	21.32	21.35	2			
		1	49	21.46	21.54	21.55	2			1	24	21.37	21.30	21.47	2			
		25	0	20.51	20.59	20.60	3			12	0	20.40	20.48	20.48	3			
		25	12	20.47	20.49	20.56	3			12	6	20.40	20.41	20.43	3			
		25	25	20.32	20.43	20.47	3			12	13	20.31	20.24	20.34	3			
	50	0	20.48	20.52	20.59	3	25		0	20.44	20.43	20.52	3					
3M	QPSK	1	0	23.73	23.66	23.85	0	1.4M	QPSK	1	0	23.57	23.75	23.83	0			
		1	7	23.56	23.62	23.64	0			1	2	23.53	23.57	23.66	0			
		1	14	23.50	23.51	23.59	0			1	5	23.60	23.60	23.56	0			
		8	0	22.76	22.64	22.72	1			3	0	23.74	23.75	23.71	0			
		8	3	22.72	22.67	22.76	1			3	1	23.57	23.74	23.69	0			
		8	7	22.40	22.58	22.55	1			3	3	23.56	23.57	23.55	0			
	15	0	22.68	22.73	22.72	1	6		0	22.69	22.77	22.70	1					
	16QAM	1	0	22.77	22.80	22.79	1		16QAM	1	0	22.75	22.87	22.88	1			
		1	7	22.41	22.45	22.41	1			1	2	22.41	22.35	22.46	1			
		1	14	22.31	22.47	22.37	1			1	5	22.28	22.38	22.41	1			
		8	0	21.44	21.52	21.43	2			3	0	22.32	22.57	22.57	1			
		8	3	21.49	21.29	21.40	2			3	1	22.47	22.37	22.34	1			
		8	7	21.20	21.22	21.31	2			3	3	22.24	22.32	22.30	1			
	15	0	21.21	21.40	21.38	2	6		0	21.22	21.40	21.40	2					
	64QAM	1	0	21.64	21.73	21.77	2		64QAM	1	0	21.73	21.71	21.74	2			
		1	7	21.30	21.39	21.31	2			1	2	21.35	21.23	21.46	2			
		1	14	21.33	21.47	21.42	2			1	5	21.41	21.42	21.40	2			
		8	0	20.38	20.44	20.50	3			3	0	21.37	21.36	21.41	2			
		8	3	20.46	20.42	20.40	3			3	1	21.41	21.39	21.39	2			
		8	7	20.18	20.33	20.43	3			3	3	21.22	21.19	21.32	2			
		15	0	20.39	20.43	20.53	3			6	0	20.41	20.40	20.55	3			
		QPSK	1	0	23.025	23095	23165			3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
			Channel		23025	23095	23165						Channel		23017	23095	23173	
	Frequency (MHz)		700.5	707.5	714.5	Frequency (MHz)			699.7				707.5	715.3				

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LTE Band 13																	
EUT without Power Reduction (P-Sensor NOT Triggered)																	
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)		
		Channel								Channel							
		Frequency (MHz)								Frequency (MHz)							
10M	QPSK	1	0		23.88		0	5M	QPSK	1	0	23.76	23.76	23.62	0		
		1	24		23.7		0			1	12	23.46	23.59	23.38	0		
		1	49		23.66		0			1	24	23.50	23.56	23.34	0		
		25	0		22.85		1			12	0	22.74	22.79	22.56	1		
		25	12		22.8		1			12	6	22.67	22.64	22.42	1		
		25	25		22.7		1			12	13	22.46	22.60	22.45	1		
	50	0		22.74		1	25		0	22.60	22.51	22.39	1				
	16QAM	1	0		22.89		1		16QAM	1	0		22.81	22.84	22.68	1	
		1	24		22.49		1			1	12	22.25	22.33	22.39	1		
		1	49		22.48		1			1	24	22.35	22.34	22.33	1		
		25	0		21.56		2			12	0	21.21	21.54	21.49	2		
		25	12		21.46		2			12	6	21.36	21.40	21.43	2		
		25	25		21.38		2			12	13	21.08	21.22	21.28	2		
	50	0		21.46		2	25		0	21.26	21.34	21.29	2				
	64QAM	1	0		21.80		2		64QAM	1	0		21.72	21.79	21.65	2	
		1	24		21.44		2			1	12	21.23	21.29	21.39	2		
		1	49		21.54		2			1	24	21.41	21.33	21.35	2		
		25	0		20.50		3			12	0	20.28	20.28	20.31	3		
		25	12		20.54		3			12	6	20.22	20.51	20.31	3		
		25	25		20.45		3			12	13	20.11	20.25	20.24	3		
	50	0		20.52		3	25		0	20.29	20.38	20.30	3				
	EUT with Power Reduction (P-Sensor Triggered)																
	BW	MCS Index	RB Size	RB Offset	Low	Mid	High		3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
			Channel									Channel					
Frequency (MHz)			Frequency (MHz)														
10M	QPSK	1	0		22.88		0	5M	QPSK	1	0	22.81	22.78	22.75	0		
		1	24		22.87		0			1	12	22.86	22.83	22.79	0		
		1	49		22.57		0			1	24	22.56	22.53	22.49	0		
		25	0		21.95		1			12	0	21.94	21.91	21.87	1		
		25	12		21.89		1			12	6	21.88	21.85	21.81	1		
		25	25		21.72		1			12	13	21.71	21.68	21.64	1		
	50	0		21.84		1	25		0	21.83	21.80	21.76	1				
	16QAM	1	0		21.98		1		16QAM	1	0		21.97	21.94	21.90	1	
		1	24		21.95		1			1	12	21.94	21.91	21.87	1		
		1	49		21.93		1			1	24	21.92	21.89	21.85	1		
		25	0		21.00		2			12	0	20.99	20.96	20.92	2		
		25	12		20.95		2			12	6	20.94	20.91	20.87	2		
		25	25		20.80		2			12	13	20.79	20.76	20.72	2		
	50	0		20.96		2	25		0	20.95	20.92	20.88	2				
	64QAM	1	0		19.95		2		64QAM	1	0		19.94	19.91	19.87	3	
		1	24		19.91		2			1	12	19.90	19.87	19.83	3		
		1	49		19.98		2			1	24	19.97	19.94	19.90	3		
		25	0		19.83		3			12	0	19.82	19.79	19.75	3		
		25	12		19.81		3			12	6	19.80	19.77	19.73	3		
		25	25		19.95		3			12	13	19.94	19.91	19.87	3		
	50	0		19.80		3	25		0	19.79	19.76	19.72	3				

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LTE Band 14																
EUT without Power Reduction (P-Sensor NOT Triggered)																
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	
		Channel								Channel						
		Frequency (MHz)								Frequency (MHz)						
10M	QPSK	1	0		23.85		0	5M	QPSK	1	0	23.66	23.63	23.61	0	
		1	24		23.71		0			1	12	23.52	23.46	23.51	0	
		1	49		23.53		0			1	24	23.30	23.42	23.16	0	
		25	0		22.87		1			12	0	22.66	22.76	22.62	1	
		25	12		22.80		1			12	6	22.58	22.76	22.60	1	
		25	25		22.66		1			12	13	22.49	22.51	22.36	1	
	50	0		22.72		1	25	0	22.57	22.56	22.33	1				
	16QAM	1	0		22.97		1	16QAM	1	0		22.72	22.93	22.81	1	
		1	24		22.48		1		1	12	22.24	22.29	22.45	1		
		1	49		22.52		1		1	24	22.29	22.49	22.37	1		
		25	0		21.53		2		12	0	21.36	21.39	21.48	2		
		25	12		21.48		2		12	6	21.41	21.34	21.29	2		
		25	25		21.32		2		12	13	21.19	21.22	21.19	2		
	50	0		21.51		2	25	0	21.24	21.32	21.22	2				
	64QAM	1	0		21.81		2	64QAM	1	0		21.61	21.70	21.62	2	
		1	24		21.48		2		1	12	21.21	21.31	21.28	2		
		1	49		21.45		2		1	24	21.22	21.37	21.39	2		
		25	0		20.55		3		12	0	20.25	20.50	20.31	3		
		25	12		20.49		3		12	6	20.21	20.35	20.22	3		
		25	25		20.46		3		12	13	20.14	20.34	20.33	3		
	50	0		20.59		3	25	0	20.29	20.53	20.25	3				
	EUT with Power Reduction (P-Sensor Triggered)															
	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
			Channel								Channel					
Frequency (MHz)			Frequency (MHz)													
10M	QPSK	1	0		22.95		0	5M	QPSK	1	0	22.83	22.89	22.81	0	
		1	24		22.86		0			1	12	22.74	22.80	22.72	0	
		1	49		22.84		0			1	24	22.72	22.78	22.70	0	
		25	0		21.98		1			12	0	21.86	21.92	21.84	1	
		25	12		21.95		1			12	6	21.83	21.89	21.81	1	
		25	25		21.91		1			12	13	21.79	21.85	21.77	1	
	50	0		21.93		1	25	0	21.81	21.87	21.79	1				
	16QAM	1	0		21.96		1	16QAM	1	0		21.84	21.90	21.82	1	
		1	24		21.95		1		1	12	21.83	21.89	21.81	1		
		1	49		21.93		1		1	24	21.81	21.87	21.79	1		
		25	0		21.91		2		12	0	21.79	21.85	21.77	2		
		25	12		21.92		2		12	6	21.80	21.86	21.78	2		
		25	25		21.67		2		12	13	21.55	21.61	21.53	2		
	50	0		21.10		2	25	0	20.98	21.04	20.96	2				
	64QAM	1	0		21.34		2	64QAM	1	0		21.22	21.28	21.20	2	
		1	24		21.27		2		1	12	21.15	21.21	21.13	2		
		1	49		21.39		2		1	24	21.27	21.33	21.25	2		
		25	0		20.11		3		12	0	19.99	20.05	19.97	3		
		25	12		20.13		3		12	6	20.01	20.07	19.99	3		
		25	25		19.97		3		12	13	19.85	19.91	19.83	3		
	50	0		20.10		3	25	0	19.98	20.04	19.96	3				

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## LTE Band 17

BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		23780	23790	23800				Channel		23755	23790	23825	
		Frequency (MHz)		709.0	710.0	711.0				Frequency (MHz)		706.5	710.0	713.5	
10M	QPSK	1	0	24.00	24.10	24.13	0	5M	QPSK	1	0	23.98	23.90	24.00	0
		1	24	23.95	24.06	24.08	0			1	12	23.91	23.97	23.85	0
		1	49	23.80	23.90	23.93	0			1	24	23.58	23.82	23.78	0
		25	0	23.09	23.17	23.20	1			12	0	22.87	23.08	23.03	1
		25	12	23.07	23.14	23.18	1			12	6	22.94	22.96	22.90	1
		25	25	22.93	23.05	23.07	1			12	13	22.68	23.03	22.93	1
	50	0	23.01	23.11	23.13	1	25		0	22.95	23.04	22.91	1		
	16QAM	1	0	22.70	22.80	23.17	1		16QAM	1	0	22.55	22.65	23.10	1
		1	24	22.44	22.51	22.90	1			1	12	22.19	22.46	22.81	1
		1	49	22.52	22.64	22.94	1			1	24	22.27	22.46	22.81	1
		25	0	21.46	21.51	21.85	2			12	0	21.32	21.41	21.78	2
		25	12	21.47	21.39	21.79	2			12	6	21.23	21.21	21.67	2
		25	25	21.39	21.40	21.68	2			12	13	21.19	21.26	21.54	2
	50	0	21.34	21.47	21.75	2	25		0	21.33	21.33	21.71	2		
	64QAM	1	0	21.58	21.65	22.01	2		64QAM	1	0	21.51	21.56	21.84	2
		1	24	21.45	21.47	21.84	2			1	12	21.25	21.37	21.62	2
		1	49	21.41	21.48	21.83	2			1	24	21.20	21.42	21.70	2
		25	0	20.43	20.54	20.85	3			12	0	20.31	20.52	20.77	3
		25	12	20.40	20.41	20.68	3			12	6	20.37	20.28	20.44	3
		25	25	20.34	20.31	20.71	3			12	13	20.16	20.18	20.51	3
	50	0	20.38	20.47	20.80	3	25		0	20.19	20.25	20.75	3		

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## LTE Band 25

BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		26140	26365	26590				Channel		26115	26365	26615	
		Frequency (MHz)		1860.0	1882.5	1905.0				Frequency (MHz)		1857.5	1882.5	1907.5	
20M	QPSK	1	0	23.38	23.50	23.75	0	15M	QPSK	1	0	23.38	23.42	23.67	0
		1	50	23.16	23.28	23.50	0			1	37	23.06	23.25	23.43	0
		1	99	23.20	23.36	23.55	0			1	74	23.15	23.36	23.51	0
		50	0	22.22	22.36	22.58	1			36	0	22.21	22.31	22.55	1
		50	25	22.10	22.28	22.47	1			36	19	22.06	22.26	22.37	1
		50	50	22.23	22.40	22.60	1			36	39	22.14	22.40	22.55	1
	100	0	22.30	22.44	22.65	1	75		0	22.26	22.35	22.65	1		
	16QAM	1	0	22.74	22.86	23.18	1		16QAM	1	0	22.68	22.78	23.09	1
		1	50	22.44	22.48	22.88	1			1	37	22.38	22.42	22.88	1
		1	99	22.55	22.58	22.96	1			1	74	22.51	22.49	22.96	1
		50	0	21.42	21.48	21.85	2			36	0	21.33	21.38	21.76	2
		50	25	21.43	21.44	21.74	2			36	19	21.42	21.39	21.70	2
		50	50	21.34	21.38	21.67	2			36	39	21.24	21.30	21.64	2
	100	0	21.31	21.49	21.74	2	75		0	21.25	21.41	21.73	2		
	64QAM	1	0	21.60	21.66	22.05	2		64QAM	1	0	21.52	21.61	21.97	2
		1	50	21.43	21.48	21.78	2			1	37	21.39	21.46	21.77	2
		1	99	21.41	21.46	21.81	2			1	74	21.35	21.38	21.74	2
		50	0	20.47	20.47	20.87	3			36	0	20.46	20.45	20.85	3
50		25	20.32	20.40	20.78	3	36	19		20.23	20.33	20.76	3		
50		50	20.32	20.31	20.70	3	36	39		20.30	20.28	20.69	3		
100	0	20.33	20.47	20.79	3	75	0	20.25	20.44	20.70	3				
10M	QPSK	1	0	23.19	23.44	23.62	0	5M	QPSK	1	0	23.30	23.27	23.43	0
		1	24	22.97	23.06	23.34	0			1	12	23.08	23.25	23.19	0
		1	49	23.00	23.24	23.40	0			1	24	23.14	23.21	23.35	0
		25	0	22.08	22.26	22.57	1			12	0	22.13	22.32	22.43	1
		25	12	21.98	22.06	22.38	1			12	6	21.91	22.17	22.13	1
		25	25	22.03	22.22	22.47	1			12	13	22.19	22.26	22.35	1
	50	0	22.16	22.31	22.44	1	25		0	22.19	22.37	22.38	1		
	16QAM	1	0	22.56	22.71	23.04	1		16QAM	1	0	22.67	22.72	23.05	1
		1	24	22.34	22.34	22.80	1			1	12	22.28	22.25	22.76	1
		1	49	22.46	22.50	22.77	1			1	24	22.44	22.50	22.86	1
		25	0	21.28	21.37	21.74	2			12	0	21.28	21.37	21.62	2
		25	12	21.31	21.35	21.59	2			12	6	21.36	21.25	21.65	2
		25	25	21.25	21.23	21.63	2			12	13	21.28	21.32	21.60	2
	50	0	21.21	21.38	21.63	2	25		0	21.12	21.40	21.66	2		
	64QAM	1	0	21.44	21.57	22.03	2		64QAM	1	0	21.44	21.55	22.00	2
		1	24	21.30	21.35	21.68	2			1	12	21.36	21.31	21.66	2
		1	49	21.29	21.37	21.77	2			1	24	21.38	21.35	21.63	2
		25	0	20.30	20.31	20.73	3			12	0	20.30	20.26	20.83	3
25		12	20.14	20.22	20.66	3	12	6		20.27	20.29	20.62	3		
25		25	20.18	20.21	20.66	3	12	13		20.17	20.12	20.51	3		
50	0	20.19	20.32	20.69	3	25	0	20.18	20.37	20.72	3				
3M	QPSK	1	0	23.25	23.43	23.67	0	1.4M	QPSK	1	0	23.24	23.30	23.55	0
		1	7	23.04	23.15	23.30	0			1	2	23.03	23.25	23.26	0
		1	14	23.12	23.23	23.39	0			1	5	23.11	23.18	23.42	0
		8	0	22.14	22.31	22.42	1			3	0	23.11	23.16	23.37	0
		8	3	21.89	22.18	22.38	1			3	1	22.97	23.18	23.47	0
		8	7	22.13	22.25	22.43	1			3	3	23.09	23.29	23.38	0
	15	0	22.27	22.42	22.44	1	6		0	22.21	22.27	22.54	1		
	16QAM	1	0	22.67	22.76	23.06	1		16QAM	1	0	22.60	22.75	23.15	1
		1	7	22.42	22.29	22.63	1			1	2	22.37	22.41	22.64	1
		1	14	22.40	22.45	22.85	1			1	5	22.38	22.40	22.80	1
		8	0	21.32	21.37	21.71	2			3	0	22.23	22.34	22.70	1
		8	3	21.23	21.29	21.58	2			3	1	22.31	22.39	22.58	1
		8	7	21.23	21.30	21.59	2			3	3	22.20	22.16	22.54	1
	15	0	21.24	21.34	21.68	2	6		0	21.15	21.46	21.58	2		
	64QAM	1	0	21.41	21.63	21.80	2		64QAM	1	0	21.52	21.61	21.88	2
		1	7	21.39	21.27	21.56	2			1	2	21.36	21.40	21.69	2
		1	14	21.22	21.31	21.66	2			1	5	21.30	21.29	21.71	2
		8	0	20.24	20.35	20.84	3			3	0	21.36	21.40	21.69	2
8		3	20.21	20.36	20.78	3	3	1		21.12	21.36	21.74	2		
8		7	20.13	20.21	20.53	3	3	3		21.18	21.20	21.61	2		
15	0	20.28	20.32	20.73	3	6	0	20.20	20.28	20.62	3				



LTE Band 26																	
EUT without Power Reduction (P-Sensor NOT Triggered)																	
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)		
		Channel		26765	26865	26965				Channel		26740	26865	26990			
		Frequency (MHz)		821.5	831.5	841.5				Frequency (MHz)		819.0	831.5	844.0			
15M	QPSK	1	0	23.68	23.70	23.90	0	10M	QPSK	1	0	23.57	23.53	23.82	0		
		1	37	23.60	23.64	23.80	0			1	24	23.49	23.43	23.67	0		
		1	74	23.54	23.59	23.77	0			1	49	23.32	23.58	23.55	0		
		36	0	22.60	22.65	22.83	1			25	0	22.50	22.52	22.67	1		
		36	19	22.63	22.68	22.85	1			25	12	22.59	22.46	22.74	1		
		36	39	22.55	22.59	22.74	1			25	25	22.37	22.35	22.60	1		
		75	0	22.63	22.69	22.85	1			50	0	22.43	22.54	22.79	1		
	16QAM	1	0	22.74	22.89	23.16	1		16QAM	1	0	22.69	22.72	23.14	1		
		1	37	22.48	22.48	22.90	1			1	24	22.34	22.44	22.87	1		
		1	74	22.60	22.58	22.96	1			1	49	22.52	22.42	22.86	1		
		36	0	21.43	21.48	21.87	2			25	0	21.30	21.33	21.76	2		
		36	19	21.44	21.46	21.75	2			25	12	21.35	21.34	21.65	2		
		36	39	21.39	21.32	21.65	2			25	25	21.37	21.23	21.45	2		
		75	0	21.38	21.41	21.75	2			50	0	21.26	21.23	21.62	2		
	64QAM	1	0	21.62	21.73	22.03	2		64QAM	1	0	21.52	21.48	21.96	2		
		1	37	21.45	21.44	21.79	2			1	24	21.30	21.29	21.68	2		
		1	74	21.47	21.51	21.80	2			1	49	21.35	21.44	21.72	2		
		36	0	20.46	20.53	20.83	3			25	0	20.40	20.46	20.69	3		
		36	19	20.32	20.37	20.75	3			25	12	20.16	20.31	20.71	3		
		36	39	20.27	20.40	20.66	3			25	25	20.10	20.23	20.55	3		
		75	0	20.34	20.49	20.80	3			50	0	20.17	20.41	20.68	3		
	EUT with Power Reduction (P-Sensor Triggered)																
	BW	MCS Index	RB Size	RB Offset	Low	Mid	High		3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
			Channel		26765	26865	26965					Channel		26740	26865	26990	
Frequency (MHz)			821.5	831.5	841.5	Frequency (MHz)		819.0				831.5	844.0				
15M	QPSK	1	0	22.81	22.88	22.92	0	10M	QPSK	1	0	22.71	22.83	22.86	0		
		1	37	22.71	22.78	22.82	0			1	24	22.61	22.74	22.82	0		
		1	74	22.80	22.87	22.91	0			1	49	22.79	22.78	22.82	0		
		36	0	21.76	21.83	21.87	1			25	0	21.73	21.79	21.81	1		
		36	19	21.79	21.86	21.90	1			25	12	21.72	21.81	21.87	1		
		36	39	21.72	21.79	21.83	1			25	25	21.66	21.78	21.74	1		
		75	0	21.70	21.77	21.81	1			50	0	21.63	21.71	21.79	1		
	16QAM	1	0	21.76	21.83	21.87	1		16QAM	1	0	21.66	21.81	21.85	1		
		1	37	21.81	21.88	21.92	1			1	24	21.75	21.84	21.83	1		
		1	74	21.79	21.86	21.90	1			1	49	21.77	21.78	21.80	1		
		36	0	20.83	20.90	20.94	2			25	0	20.80	20.82	20.91	2		
		36	19	20.80	20.87	20.91	2			25	12	20.78	20.86	20.84	2		
		36	39	20.85	20.92	20.96	2			25	25	20.78	20.86	20.87	2		
		75	0	20.81	20.88	20.92	2			50	0	20.77	20.88	20.92	2		
	64QAM	1	0	20.78	20.85	20.89	2		64QAM	1	0	20.74	20.79	20.86	2		
		1	37	20.74	20.81	20.85	2			1	24	20.65	20.81	20.82	2		
		1	74	20.79	20.86	20.90	2			1	49	20.69	20.86	20.89	2		
		36	0	19.74	19.81	19.85	3			25	0	19.68	19.73	19.80	3		
		36	19	19.75	19.82	19.86	3			25	12	19.65	19.76	19.78	3		
		36	39	19.74	19.81	19.85	3			25	25	19.68	19.76	19.81	3		
		75	0	19.82	19.89	19.93	3			50	0	19.79	19.86	19.85	3		

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LTE Band 26																	
EUT without Power Reduction (P-Sensor NOT Triggered)																	
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)		
		Channel		26715	26865	27015				Channel		26705	26865	27025			
		Frequency (MHz)		816.5	831.5	846.5				Frequency (MHz)		815.5	831.5	847.5			
5M	QPSK	1	0	23.61	23.60	23.79	0	3M	QPSK	1	0	23.60	23.66	23.72	0		
		1	12	23.55	23.52	23.55	0			1	7	23.52	23.51	23.59	0		
		1	24	23.44	23.44	23.68	0			1	14	23.44	23.56	23.62	0		
		12	0	22.43	22.51	22.59	1			8	0	22.49	22.54	22.66	1		
		12	6	22.44	22.66	22.82	1			8	3	22.55	22.60	22.76	1		
		12	13	22.53	22.50	22.56	1			8	7	22.44	22.48	22.55	1		
		25	0	22.49	22.53	22.69	1			15	0	22.45	22.59	22.64	1		
	16QAM	1	0	22.69	22.69	23.06	1		16QAM	1	0	22.55	22.74	23.01	1		
		1	12	22.29	22.37	22.83	1			1	7	22.47	22.41	22.72	1		
		1	24	22.41	22.41	22.78	1			1	14	22.40	22.40	22.74	1		
		12	0	21.30	21.43	21.73	2			8	0	21.29	21.44	21.78	2		
		12	6	21.34	21.33	21.55	2			8	3	21.36	21.30	21.66	2		
		12	13	21.30	21.14	21.58	2			8	7	21.21	21.16	21.58	2		
		25	0	21.23	21.30	21.63	2			15	0	21.34	21.22	21.68	2		
	64QAM	1	0	21.41	21.57	21.94	2		64QAM	1	0	21.45	21.62	21.97	2		
		1	12	21.35	21.39	21.68	2			1	7	21.33	21.36	21.65	2		
		1	24	21.34	21.38	21.70	2			1	14	21.25	21.47	21.70	2		
		12	0	20.35	20.35	20.73	3			8	0	20.39	20.46	20.67	3		
		12	6	20.24	20.26	20.57	3			8	3	20.22	20.29	20.62	3		
		12	13	20.06	20.33	20.51	3			8	7	20.22	20.30	20.54	3		
		25	0	20.19	20.39	20.62	3			15	0	20.20	20.34	20.74	3		
	EUT with Power Reduction (P-Sensor Triggered)																
	BW	MCS Index	RB Size	RB Offset	Low	Mid	High		3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
			Channel		26715	26865	27015					Channel		26705	26865	27025	
Frequency (MHz)			816.5	831.5	846.5	Frequency (MHz)		815.5				831.5	847.5				
5M	QPSK	1	0	22.64	22.77	22.65	0	3M	QPSK	1	0	22.70	22.79	22.82	0		
		1	12	22.65	22.68	22.75	0			1	7	22.60	22.66	22.69	0		
		1	24	22.72	22.74	22.82	0			1	14	22.63	22.83	22.79	0		
		12	0	21.64	21.69	21.70	1			8	0	21.57	21.74	21.77	1		
		12	6	21.58	21.65	21.66	1			8	3	21.73	21.64	21.75	1		
		12	13	21.52	21.62	21.71	1			8	7	21.60	21.74	21.68	1		
		25	0	21.55	21.66	21.59	1			15	0	21.60	21.68	21.69	1		
	16QAM	1	0	21.75	21.71	21.81	1		16QAM	1	0	21.69	21.66	21.70	1		
		1	12	21.68	21.81	21.76	1			1	7	21.72	21.74	21.78	1		
		1	24	21.67	21.83	21.75	1			1	14	21.58	21.69	21.78	1		
		12	0	20.72	20.73	20.88	2			8	0	20.76	20.77	20.87	2		
		12	6	20.65	20.64	20.85	2			8	3	20.58	20.75	20.78	2		
		12	13	20.81	20.91	20.91	2			8	7	20.70	20.74	20.81	2		
		25	0	20.59	20.65	20.76	2			15	0	20.75	20.79	20.86	2		
	64QAM	1	0	20.73	20.76	20.67	2		64QAM	1	0	20.69	20.67	20.76	2		
		1	12	20.71	20.64	20.67	2			1	7	20.56	20.69	20.66	2		
		1	24	20.64	20.66	20.80	2			1	14	20.61	20.79	20.66	2		
		12	0	19.58	19.59	19.80	3			8	0	19.54	19.71	19.72	3		
		12	6	19.73	19.62	19.75	3			8	3	19.69	19.69	19.79	3		
		12	13	19.66	19.56	19.67	3			8	7	19.57	19.76	19.75	3		
		25	0	19.69	19.76	19.77	3			15	0	19.69	19.80	19.77	3		

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LTE Band 26															
EUT without Power Reduction (P-Sensor NOT Triggered)							EUT with Power Reduction (P-Sensor Triggered)								
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		26697	26865	27033				Channel		26697	26865	27033	
		Frequency (MHz)		814.7	831.5	848.3				Frequency (MHz)		814.7	831.5	848.3	
1.4M	QPSK	1	0	23.53	23.56	23.85	0	1.4M	QPSK	1	0	22.69	22.76	22.78	0
		1	2	23.58	23.55	23.61	0			1	2	22.63	22.69	22.64	0
		1	5	23.33	23.37	23.74	0			1	5	22.72	22.74	22.82	0
		3	0	23.52	23.52	23.63	0			3	0	22.69	22.75	22.80	0
		3	1	23.46	23.46	23.69	0			3	1	22.67	22.70	22.79	0
		3	3	23.52	23.43	23.50	0			3	3	22.49	22.63	22.71	0
	16QAM	6	0	22.57	22.65	22.78	1		16QAM	6	0	21.55	21.65	21.71	1
		1	0	22.64	22.81	23.00	1			1	0	21.73	21.77	21.76	1
		1	2	22.44	22.47	22.79	1			1	2	21.78	21.75	21.81	1
		1	5	22.51	22.45	22.79	1			1	5	21.67	21.68	21.78	1
		3	0	22.24	22.38	22.79	1			3	0	21.70	21.84	21.85	1
		3	1	22.36	22.42	22.70	1			3	1	21.67	21.71	21.76	1
	64QAM	3	3	22.20	22.14	22.58	1		64QAM	3	3	21.83	21.80	21.80	1
		6	0	21.17	21.31	21.67	2			6	0	20.66	20.79	20.69	2
		1	0	21.52	21.67	21.84	2			1	0	20.65	20.73	20.70	2
		1	2	21.29	21.32	21.63	2			1	2	20.63	20.58	20.76	2
		1	5	21.38	21.32	21.63	2			1	5	20.65	20.70	20.79	2
		3	0	21.34	21.39	21.81	2			3	0	20.60	20.71	20.65	2
	64QAM	3	1	21.16	21.29	21.53	2		64QAM	3	1	20.55	20.70	20.75	2
		3	3	21.11	21.34	21.45	2			3	3	20.62	20.71	20.72	2
		6	0	20.13	20.35	20.65	3			6	0	19.67	19.80	19.81	3

LTE Band 30													
BW	MCS Index	RB Size	RB Offset	Mid	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		27710				Channel		27685	27710	27735	
		Frequency (MHz)		2310.0				Frequency (MHz)		2307.5	2310.0	2312.5	
10M	QPSK	1	0	22.25	0	5M	QPSK	1	0	21.98	22.15	21.88	0
		1	24	22.15	0			1	12	21.92	22.05	21.92	0
		1	49	22.13	0			1	24	22.02	22.04	21.84	0
		25	0	21.31	1			12	0	21.13	21.23	20.91	1
		25	12	21.20	1			12	6	21.07	21.20	20.93	1
		25	25	21.25	1			12	13	21.08	21.04	20.83	1
	16QAM	50	0	21.32	1		16QAM	25	0	21.22	21.13	20.86	1
		1	0	21.22	1			1	0	21.01	21.03	21.00	1
		1	24	21.37	1			1	12	21.14	21.23	21.22	1
		1	49	21.33	1			1	24	21.11	21.20	21.24	1
		25	0	20.50	2			12	0	20.32	20.50	20.42	2
		25	12	20.40	2			12	6	20.14	20.25	20.25	2
	64QAM	25	25	20.50	2		64QAM	12	13	20.27	20.35	20.44	2
		50	0	20.55	2			25	0	20.39	20.35	20.35	2
		1	0	20.57	2			1	0	20.29	20.39	20.37	2
		1	24	20.66	2			1	12	20.49	20.66	20.61	2
		1	49	20.65	2			1	24	20.42	20.53	20.49	2
		25	0	19.82	3			12	0	19.62	19.80	19.61	3
	64QAM	25	12	19.68	3		64QAM	12	6	19.53	19.61	19.47	3
		25	25	19.80	3			12	13	19.63	19.66	19.61	3
		50	0	19.85	3			25	0	19.66	19.73	19.78	3

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LTE Band 38																	
EUT without Power Reduction (P-Sensor NOT Triggered)																	
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)		
		Channel		37850	38000	38150				Channel		37825	38000	38175			
		Frequency (MHz)		2580	2595	2610				Frequency (MHz)		2577.5	2595	2612.5			
20M	QPSK	1	0	24.20	24.15	23.95	0	15M	QPSK	1	0	24.11	24.14	23.85	0		
		1	50	23.83	23.77	23.60	0			1	37	23.82	23.75	23.53	0		
		1	99	23.78	23.71	23.57	0			1	74	23.71	23.64	23.47	0		
		50	0	23.06	23.00	22.84	1			36	0	23.06	22.96	22.77	1		
		50	25	23.03	22.96	22.80	1			36	19	23.02	22.86	22.72	1		
		50	50	22.96	22.91	22.76	1			36	39	22.89	22.87	22.72	1		
		100	0	23.08	23.02	22.87	1			75	0	23.06	23.02	22.86	1		
	16QAM	1	0	23.39	23.38	23.31	1		1	0	23.37	23.35	23.24	1			
		1	50	23.20	23.20	23.18	1		1	37	23.13	23.20	23.12	1			
		1	99	23.14	23.12	23.11	1		1	74	23.09	23.11	23.11	1			
		50	0	22.14	22.15	22.02	2		36	0	22.12	22.09	21.97	2			
		50	25	22.02	21.92	21.93	2		36	19	21.95	21.86	21.91	2			
		50	50	21.84	21.89	21.79	2		36	39	21.75	21.84	21.76	2			
		100	0	21.86	21.80	21.83	2		75	0	21.84	21.71	21.83	2			
	64QAM	1	0	22.21	22.21	22.20	2		1	0	22.15	22.11	22.18	2			
		1	50	21.96	21.97	21.87	2		1	37	21.96	21.87	21.87	2			
		1	99	21.89	21.81	21.82	2		1	74	21.83	21.76	21.82	2			
		50	0	21.00	20.97	20.92	3		36	0	20.91	20.94	20.90	3			
		50	25	20.88	20.88	20.83	3		36	19	20.85	20.79	20.82	3			
		50	50	20.75	20.79	20.83	3		36	39	20.71	20.69	20.78	3			
		100	0	20.85	20.92	20.87	3		75	0	20.83	20.91	20.77	3			
	EUT with Power Reduction (P-Sensor Triggered)																
	BW	MCS Index	RB Size	RB Offset	Low	Mid	High		3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
			Channel		37850	38000	38150					Channel		37825	38000	38175	
Frequency (MHz)			2580	2595	2610	Frequency (MHz)		2577.5				2595	2612.5				
20M	QPSK	1	0	22.71	22.44	22.63	0	15M	QPSK	1	0	22.66	22.36	22.59	0		
		1	50	22.33	22.06	22.25	0			1	37	22.26	22.03	22.23	0		
		1	99	22.20	21.93	22.12	0			1	74	22.20	21.85	22.09	0		
		50	0	21.52	21.25	21.44	1			36	0	21.42	21.24	21.43	1		
		50	25	21.43	21.16	21.35	1			36	19	21.38	21.06	21.31	1		
		50	50	21.30	21.03	21.22	1			36	39	21.30	21.00	21.20	1		
		100	0	21.38	21.11	21.30	1			75	0	21.28	21.08	21.25	1		
	16QAM	1	0	21.73	21.46	21.65	1		1	0	21.68	21.41	21.60	1			
		1	50	21.46	21.19	21.38	1		1	37	21.41	21.10	21.33	1			
		1	99	21.35	21.08	21.27	1		1	74	21.34	21.04	21.21	1			
		50	0	20.65	20.38	20.57	2		36	0	20.57	20.33	20.57	2			
		50	25	20.50	20.23	20.42	2		36	19	20.44	20.23	20.39	2			
		50	50	20.38	20.11	20.30	2		36	39	20.30	20.05	20.21	2			
		100	0	20.48	20.21	20.40	2		75	0	20.41	20.11	20.33	2			
	64QAM	1	0	20.44	20.17	20.36	2		1	0	20.39	20.07	20.31	2			
		1	50	20.43	20.16	20.35	2		1	37	20.37	20.11	20.32	2			
		1	99	20.42	20.15	20.34	2		1	74	20.37	20.05	20.30	2			
		50	0	19.88	19.61	19.80	3		36	0	19.80	19.61	19.73	3			
		50	25	19.78	19.51	19.70	3		36	19	19.68	19.51	19.63	3			
		50	50	19.62	19.35	19.54	3		36	39	19.56	19.32	19.50	3			
		100	0	19.74	19.47	19.66	3		75	0	19.68	19.39	19.56	3			

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LTE Band 38															
EUT without Power Reduction (P-Sensor NOT Triggered)															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		37800	38000	38200				Channel		37775	38000	38225	
		Frequency (MHz)		2575	2595	2615				Frequency (MHz)		2572.5	2595	2617.5	
10M	QPSK	1	0	24.05	24.08	23.82	0	5M	QPSK	1	0	24.06	24.02	23.88	0
		1	24	23.72	23.63	23.40	0			1	12	23.68	23.71	23.49	0
		1	49	23.68	23.60	23.36	0			1	24	23.63	23.61	23.42	0
		25	0	22.99	22.82	22.73	1			12	0	22.96	22.87	22.67	1
		25	12	22.88	22.85	22.64	1			12	6	22.89	22.83	22.51	1
		25	25	22.88	22.76	22.69	1			12	13	22.80	22.84	22.53	1
		50	0	22.97	22.84	22.74	1			25	0	22.98	22.93	22.63	1
	16QAM	1	0	23.30	23.23	23.17	1		16QAM	1	0	23.23	23.30	23.10	1
		1	24	23.00	23.03	23.09	1			1	12	23.11	23.20	23.09	1
		1	49	22.97	22.93	22.99	1			1	24	22.93	23.07	23.00	1
		25	0	21.97	21.97	21.89	2			12	0	22.09	22.09	21.88	2
		25	12	21.94	21.82	21.70	2			12	6	21.92	21.82	21.78	2
		25	25	21.69	21.85	21.79	2			12	13	21.62	21.82	21.69	2
		50	0	21.81	21.75	21.79	2			25	0	21.71	21.58	21.69	2
	64QAM	1	0	22.02	22.18	22.06	2		64QAM	1	0	22.12	22.02	22.04	2
		1	24	21.82	21.77	21.80	2			1	12	21.86	21.81	21.73	2
		1	49	21.74	21.68	21.78	2			1	24	21.85	21.70	21.61	2
		25	0	20.89	20.73	20.82	3			12	0	20.90	20.81	20.77	3
		25	12	20.74	20.82	20.72	3			12	6	20.82	20.78	20.81	3
		25	25	20.59	20.70	20.83	3			12	13	20.71	20.68	20.68	3
		50	0	20.83	20.86	20.69	3			25	0	20.70	20.81	20.72	3
EUT with Power Reduction (P-Sensor Triggered)															
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
		Channel		37800	38000	38200				Channel		37775	38000	38225	
		Frequency (MHz)		2575	2595	2615				Frequency (MHz)		2572.5	2595	2617.5	
10M	QPSK	1	0	22.59	22.37	22.45	0	5M	QPSK	1	0	22.65	22.24	22.59	0
		1	24	22.21	21.84	22.11	0			1	12	22.20	22.04	21.95	0
		1	49	22.08	21.70	22.01	0			1	24	22.04	21.80	22.04	0
		25	0	21.45	21.11	21.30	1			12	0	21.29	21.06	21.21	1
		25	12	21.41	21.12	21.29	1			12	6	21.25	21.06	21.15	1
		25	25	21.15	20.92	21.16	1			12	13	21.17	20.90	21.12	1
		50	0	21.27	21.01	21.17	1			25	0	21.22	20.99	21.12	1
	16QAM	1	0	21.53	21.30	21.59	1		16QAM	1	0	21.62	21.44	21.46	1
		1	24	21.37	21.02	21.15	1			1	12	21.29	21.00	21.29	1
		1	49	21.23	20.99	21.18	1			1	24	21.11	20.95	21.05	1
		25	0	20.45	20.27	20.52	2			12	0	20.52	20.24	20.53	2
		25	12	20.44	20.09	20.32	2			12	6	20.35	20.13	20.34	2
		25	25	20.36	20.08	20.13	2			12	13	20.30	20.03	20.20	2
		50	0	20.34	20.14	20.37	2			25	0	20.35	20.09	20.27	2
	64QAM	1	0	20.30	20.13	20.20	2		64QAM	1	0	20.43	20.11	20.20	2
		1	24	20.34	20.00	20.16	2			1	12	20.32	19.97	20.20	2
		1	49	20.31	19.94	20.17	2			1	24	20.35	20.02	20.27	2
		25	0	19.80	19.48	19.68	3			12	0	19.67	19.42	19.67	3
		25	12	19.57	19.44	19.59	3			12	6	19.58	19.37	19.65	3
		25	25	19.49	19.20	19.39	3			12	13	19.52	19.34	19.45	3
		50	0	19.53	19.44	19.55	3			25	0	19.56	19.41	19.54	3

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LTE Band 41																					
EUT without Power Reduction (P-Sensor NOT Triggered)																					
BW	MCS Index	RB Size	RB Offset	Low	Mid	Mid	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	Mid	Mid	High	3GPP MPR (dB)		
		Channel	Channel	39750	40185	40620	41055	41490				39725	40173	40620	41068	41515					
		Frequency (MHz)	Frequency (MHz)	2506.0	2549.5	2593.0	2636.5	2680.0				2503.5	2548.3	2593.0	2637.8	2682.5					
20M	QPSK	1	0	24.08	23.70	24.09	24.00	23.81	0	15M	QPSK	1	0	24.03	23.66	23.96	23.96	23.73	0		
		1	50	23.75	23.44	23.73	23.70	23.55	0			1	37	23.65	23.44	23.69	23.64	23.47	0		
		1	99	23.70	23.40	23.69	23.65	23.50	0			1	74	23.64	23.30	23.59	23.60	23.40	0		
		50	0	22.97	22.65	22.98	22.87	22.74	1			36	0	22.96	22.55	22.89	22.83	22.67	1		
		50	25	22.85	22.51	22.80	22.75	22.60	1			36	19	22.76	22.49	22.80	22.73	22.58	1		
		50	50	22.81	22.42	22.77	22.74	22.54	1			36	39	22.78	22.36	22.77	22.65	22.45	1		
	100	0	22.90	22.60	22.91	22.84	22.69	1	75		0	22.80	22.55	22.81	22.77	22.60	1				
	16QAM	1	0	23.32	23.01	23.28	23.26	23.10	1		16QAM	1	0	23.05	22.65	23.00	23.00	22.77	1		
		1	50	22.95	22.65	22.91	22.86	22.73	1			1	37	22.74	22.37	22.69	22.68	22.50	1		
		1	99	22.90	22.57	22.89	22.85	22.66	1			1	74	22.69	22.31	22.64	22.64	22.41	1		
		50	0	22.07	21.74	22.03	22.00	21.83	2			36	0	21.87	21.64	21.88	21.77	21.74	2		
		50	25	21.96	21.64	21.95	21.90	21.75	2			36	19	21.84	21.50	21.71	21.74	21.54	2		
		50	50	21.95	21.63	21.91	21.86	21.76	2			36	39	21.72	21.33	21.74	21.69	21.51	2		
	100	0	22.08	21.79	22.06	22.01	21.90	2	75		0	21.89	21.53	21.84	21.79	21.61	2				
	64QAM	1	0	21.85	21.54	21.81	21.79	21.62	2		64QAM	1	0	22.03	21.64	21.95	21.98	21.71	2		
		1	50	21.52	21.20	21.49	21.45	21.29	2			1	37	21.65	21.44	21.66	21.65	21.54	2		
		1	99	21.46	21.16	21.42	21.38	21.24	2			1	74	21.65	21.40	21.63	21.61	21.46	2		
		50	0	21.07	20.74	21.06	21.00	20.83	3			36	0	20.91	20.65	20.85	20.77	20.65	3		
		50	25	20.94	20.65	20.90	20.85	20.75	3			36	19	20.81	20.41	20.71	20.72	20.57	3		
		50	50	20.90	20.60	20.86	20.80	20.69	3			36	39	20.74	20.36	20.74	20.72	20.53	3		
	100	0	21.06	20.74	21.05	21.00	20.88	3	75		0	20.87	20.52	20.84	20.82	20.65	3				
	EUT with Power Reduction (P-Sensor Triggered)																				
	BW	MCS Index	RB Size	RB Offset	Low	Mid	Mid	Mid	High		3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	Mid	Mid	High	3GPP MPR (dB)
			Channel	Channel	39750	40185	40620	41055	41490					39725	40173	40620	41068	41515			
Frequency (MHz)			Frequency (MHz)	2506.0	2549.5	2593.0	2636.5	2680.0	2503.5	2548.3				2593.0	2637.8	2682.5					
20M	QPSK	1	0	22.71	22.88	22.89	22.86	22.84	0	15M	QPSK	1	0	22.62	22.85	22.88	22.85	22.75	0		
		1	50	22.41	22.58	22.59	22.56	22.54	0			1	37	22.35	22.56	22.59	22.56	22.50	0		
		1	99	22.18	22.35	22.36	22.33	22.31	0			1	74	22.10	22.26	22.31	22.31	22.26	0		
		50	0	21.65	21.82	21.83	21.80	21.78	1			36	0	21.59	21.76	21.78	21.70	21.72	1		
		50	25	21.50	21.67	21.68	21.65	21.63	1			36	19	21.41	21.57	21.66	21.56	21.58	1		
		50	50	21.38	21.55	21.56	21.53	21.51	1			36	39	21.29	21.47	21.46	21.44	21.48	1		
	100	0	21.40	21.57	21.57	21.55	21.53	1	75		0	21.32	21.53	21.51	21.45	21.49	1				
	16QAM	1	0	21.72	21.89	21.90	21.87	21.85	1		16QAM	1	0	21.70	21.79	21.84	21.83	21.75	1		
		1	50	21.49	21.66	21.67	21.64	21.62	1			1	37	21.41	21.58	21.53	21.52	21.52	1		
		1	99	21.34	21.51	21.52	21.49	21.47	1			1	74	21.12	21.33	21.27	21.23	21.22	1		
		50	0	20.74	20.91	20.92	20.89	20.87	2			36	0	20.62	20.80	20.78	20.79	20.78	2		
		50	25	20.61	20.78	20.79	20.76	20.74	2			36	19	20.49	20.60	20.66	20.61	20.56	2		
		50	50	20.45	20.62	20.63	20.60	20.58	2			36	39	20.33	20.52	20.54	20.53	20.42	2		
	100	0	20.57	20.74	20.75	20.72	20.70	2	75		0	20.39	20.57	20.47	20.52	20.45	2				
	64QAM	1	0	20.62	20.79	20.80	20.77	20.75	2		64QAM	1	0	20.65	20.82	20.83	20.86	20.76	2		
		1	50	20.24	20.41	20.42	20.39	20.37	2			1	37	20.34	20.57	20.54	20.46	20.45	2		
		1	99	20.09	20.26	20.27	20.24	20.22	2			1	74	20.16	20.28	20.27	20.26	20.25	2		
		50	0	19.77	19.94	19.95	19.92	19.90	3			36	0	19.60	19.82	19.76	19.73	19.76	3		
		50	25	19.69	19.86	19.87	19.84	19.82	3			36	19	19.44	19.66	19.63	19.56	19.59	3		
		50	50	19.55	19.72	19.73	19.70	19.68	3			36	39	19.32	19.47	19.47	19.53	19.45	3		
	100	0	19.68	19.85	19.86	19.83	19.81	3	75		0	19.34	19.51	19.54	19.49	19.52	3				

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LTE Band 41																					
EUT without Power Reduction (P-Sensor NOT Triggered)																					
BW	MCS Index	RB Size	RB Offset	Low	Mid	Mid	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	Mid	Mid	High	3GPP MPR (dB)		
				39700	40160	40620	41080	41540						39675	40148	40620	41093	41565			
				Channel	2501.0	2547.0	2593.0	2639.0						2685.0	Channel	2498.5	2545.8	2593.0		2640.3	2687.5
		Frequency (MHz)																			
10M	QPSK	1	0	23.93	23.56	24.00	23.94	23.61	0	5M	QPSK	1	0	23.89	23.69	23.90	23.89	23.76	0		
		1	24	23.63	23.39	23.64	23.62	23.52	0			1	12	23.69	23.34	23.54	23.62	23.41	0		
		1	49	23.62	23.30	23.57	23.60	23.42	0			1	24	23.66	23.20	23.54	23.51	23.46	0		
		25	0	22.84	22.52	22.88	22.76	22.56	1			12	0	22.81	22.57	22.79	22.69	22.63	1		
		25	12	22.65	22.47	22.76	22.58	22.46	1			12	6	22.84	22.40	22.68	22.71	22.53	1		
		25	25	22.68	22.30	22.67	22.65	22.50	1			12	13	22.69	22.23	22.77	22.64	22.51	1		
	50	0	22.84	22.45	22.83	22.83	22.57	1	25		0	22.78	22.48	22.86	22.74	22.54	1				
	16QAM	1	0	22.92	22.54	23.01	22.92	22.65	1		16QAM	1	0	22.97	22.64	22.90	22.99	22.72	1		
		1	24	22.64	22.38	22.69	22.66	22.46	1			1	12	22.65	22.28	22.61	22.62	22.41	1		
		1	49	22.61	22.24	22.55	22.59	22.44	1			1	24	22.60	22.21	22.54	22.46	22.40	1		
		25	0	21.86	21.57	21.89	21.74	21.56	2			12	0	21.86	21.55	21.85	21.69	21.70	2		
		25	12	21.69	21.40	21.72	21.58	21.53	2			12	6	21.76	21.40	21.64	21.67	21.57	2		
		25	25	21.72	21.40	21.67	21.67	21.43	2			12	13	21.71	21.28	21.72	21.66	21.48	2		
	50	0	21.76	21.42	21.76	21.75	21.57	2	25		0	21.81	21.56	21.79	21.80	21.56	2				
	64QAM	1	0	21.93	21.63	21.98	21.85	21.64	2		64QAM	1	0	21.98	21.65	21.90	21.92	21.72	2		
		1	24	21.72	21.37	21.67	21.68	21.52	2			1	12	21.64	21.29	21.53	21.60	21.46	2		
		1	49	21.59	21.26	21.52	21.63	21.45	2			1	24	21.61	21.25	21.61	21.51	21.43	2		
		25	0	20.83	20.55	20.86	20.81	20.64	3			12	0	20.90	20.53	20.82	20.74	20.69	3		
		25	12	20.71	20.50	20.72	20.63	20.54	3			12	6	20.75	20.40	20.65	20.74	20.59	3		
		25	25	20.71	20.36	20.62	20.63	20.49	3			12	13	20.77	20.31	20.73	20.61	20.48	3		
	50	0	20.75	20.42	20.83	20.77	20.50	3	25		0	20.75	20.54	20.78	20.73	20.50	3				
	EUT with Power Reduction (P-Sensor Triggered)																				
	BW	MCS Index	RB Size	RB Offset	Low	Mid	Mid	Mid	High		3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	Mid	Mid	High	3GPP MPR (dB)
					39700	40160	40620	41080	41540							39675	40148	40620	41093	41565	
Channel					2501.0	2547.0	2593.0	2639.0	2685.0	Channel						2498.5	2545.8	2593.0	2640.3	2687.5	
		Frequency (MHz)																			
10M	QPSK	1	0	22.66	22.81	22.82	22.76	22.79	0	5M	QPSK	1	0	22.59	22.80	22.81	22.69	22.75	0		
		1	24	22.34	22.49	22.53	22.43	22.46	0			1	12	22.28	22.46	22.49	22.44	22.41	0		
		1	49	22.12	22.23	22.25	22.28	22.23	0			1	24	22.12	22.26	22.26	22.24	22.21	0		
		25	0	21.51	21.70	21.75	21.75	21.66	1			12	0	21.63	21.67	21.66	21.73	21.75	1		
		25	12	21.43	21.59	21.50	21.55	21.52	1			12	6	21.50	21.59	21.60	21.64	21.57	1		
		25	25	21.26	21.45	21.45	21.41	21.35	1			12	13	21.27	21.41	21.49	21.45	21.42	1		
	50	0	21.33	21.40	21.48	21.36	21.46	1	25		0	21.37	21.41	21.49	21.44	21.38	1				
	16QAM	1	0	21.68	21.72	21.75	21.74	21.73	1		16QAM	1	0	21.53	21.81	21.79	21.74	21.66	1		
		1	24	21.31	21.45	21.51	21.36	21.41	1			1	12	21.30	21.53	21.49	21.45	21.48	1		
		1	49	21.10	21.29	21.20	21.27	21.23	1			1	24	21.15	21.27	21.30	21.26	21.15	1		
		25	0	20.52	20.78	20.74	20.68	20.71	2			12	0	20.54	20.68	20.71	20.70	20.67	2		
		25	12	20.41	20.58	20.52	20.50	20.51	2			12	6	20.42	20.62	20.61	20.56	20.51	2		
		25	25	20.21	20.51	20.46	20.36	20.38	2			12	13	20.19	20.51	20.39	20.36	20.40	2		
	50	0	20.27	20.40	20.55	20.38	20.43	2	25		0	20.37	20.49	20.42	20.42	20.37	2				
	64QAM	1	0	20.63	20.72	20.81	20.76	20.80	2		64QAM	1	0	20.60	20.84	20.79	20.78	20.67	2		
		1	24	20.32	20.50	20.53	20.40	20.40	2			1	12	20.28	20.46	20.50	20.50	20.47	2		
		1	49	20.15	20.31	20.21	20.26	20.18	2			1	24	20.10	20.20	20.22	20.27	20.22	2		
		25	0	19.59	19.75	19.77	19.74	19.68	3			12	0	19.57	19.72	19.64	19.66	19.77	3		
		25	12	19.44	19.55	19.51	19.47	19.56	3			12	6	19.43	19.56	19.63	19.56	19.53	3		
		25	25	19.31	19.45	19.46	19.44	19.37	3			12	13	19.20	19.45	19.49	19.45	19.41	3		
	50	0	19.31	19.50	19.57	19.43	19.47	3	25		0	19.30	19.41	19.41	19.47	19.41	3				

LTE Band 66																			
EUT without Power Reduction (P-Sensor NOT Triggered)																			
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)				
				Channel	132072	132322						132572	Channel	132047		132322	132597		
				Frequency (MHz)	1720.0	1745.0						1770.0	Frequency (MHz)	1717.5		1745.0	1772.5		
20M	QPSK	1	0	23.90	23.85	23.83	0	15M	QPSK	1	0	23.88	23.76	23.74	0				
		1	50	23.70	23.67	23.62	0			1	37	23.63	23.66	23.58	0				
		1	99	23.68	23.64	23.60	0			1	74	23.63	23.54	23.53	0				
		50	0	22.85	22.80	22.78	1			36	0	22.78	22.75	22.77	1				
		50	25	22.78	22.72	22.69	1			36	19	22.77	22.64	22.67	1				
		50	50	22.72	22.66	22.61	1			36	39	22.70	22.60	22.55	1				
	16QAM	100	0	22.80	22.77	22.70	1		75	0	22.76	22.76	22.70	1					
		1	0	23.40	23.37	23.32	1		16QAM	1	0	23.30	23.29	23.31	1				
		1	50	23.16	23.25	23.17	1			1	37	23.16	23.19	23.13	1				
		1	99	23.10	23.10	23.05	1			1	74	23.06	23.08	22.97	1				
		50	0	22.09	22.13	22.08	2			36	0	22.04	22.03	22.05	2				
		50	25	21.95	21.98	21.89	2			36	19	21.87	21.96	21.84	2				
	50	50	21.89	21.86	21.83	2	36			39	21.81	21.77	21.81	2					
	64QAM	100	0	21.89	21.87	21.88	2		75	0	21.84	21.82	21.82	2					
		1	0	22.16	22.18	22.13	2		64QAM	1	0	22.15	22.09	22.12	2				
		1	50	21.97	21.92	21.86	2			1	37	21.95	21.83	21.81	2				
		1	99	21.86	21.84	21.83	2			1	74	21.84	21.84	21.80	2				
		50	0	20.99	20.97	20.97	3			36	0	20.91	20.95	20.95	3				
		50	25	20.87	20.93	20.89	3			36	19	20.82	20.86	20.79	3				
	50	50	20.80	20.78	20.73	3	36			39	20.80	20.76	20.65	3					
	EUT with Power Reduction (P-Sensor Triggered)																		
	BW	MCS Index	RB Size	RB Offset	Low	Mid	High		3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)		
					Channel	132072	132322							132572	Channel	132047		132322	132597
					Frequency (MHz)	1720.0	1745.0							1770.0	Frequency (MHz)	1717.5		1745.0	1772.5
20M	QPSK	1	0	21.81	21.79	21.80	0	15M	QPSK	1	0	21.79	21.74	21.76	0				
		1	50	21.52	21.50	21.49	0			1	37	21.45	21.50	21.41	0				
		1	99	21.61	21.59	21.58	0			1	74	21.56	21.54	21.53	0				
		50	0	20.76	20.74	20.73	1			36	0	20.76	20.66	20.71	1				
		50	25	20.62	20.60	20.59	1			36	19	20.62	20.50	20.56	1				
		50	50	20.55	20.53	20.52	1			36	39	20.47	20.43	20.51	1				
	16QAM	100	0	20.71	20.69	20.68	1		75	0	20.65	20.64	20.62	1					
		1	0	20.91	20.89	20.88	1		16QAM	1	0	20.83	20.88	20.86	1				
		1	50	20.81	20.79	20.78	1			1	37	20.71	20.74	20.73	1				
		1	99	20.88	20.86	20.85	1			1	74	20.86	20.85	20.79	1				
		50	0	19.89	19.87	19.86	2			36	0	19.83	19.86	19.77	2				
		50	25	19.73	19.71	19.70	2			36	19	19.73	19.65	19.69	2				
	50	50	19.73	19.71	19.70	2	36			39	19.70	19.63	19.69	2					
	64QAM	100	0	19.70	19.68	19.67	2		75	0	19.60	19.68	19.58	2					
		1	0	19.75	19.73	19.72	2		64QAM	1	0	19.67	19.71	19.65	2				
		1	50	19.73	19.71	19.70	2			1	37	19.72	19.65	19.61	2				
		1	99	19.77	19.75	19.74	2			1	74	19.73	19.74	19.74	2				
		50	0	18.83	18.81	18.80	3			36	0	18.82	18.78	18.78	3				
		50	25	18.77	18.75	18.74	3			36	19	18.69	18.65	18.72	3				
	50	50	18.73	18.71	18.70	3	36			39	18.72	18.64	18.61	3					
	EUT with Power Reduction (P-Sensor NOT Triggered)																		
	20M	QPSK	1	0	20.95	20.92	20.85		3	15M	QPSK	1	0	20.89	20.87	20.75	3		
			1	50	20.92	20.87	20.85		3			1	37	20.87	20.87	20.75	3		
			1	99	20.92	20.87	20.85		3			1	74	20.87	20.87	20.75	3		
50			0	20.92	20.87	20.85	3	36	0			20.89	20.87	20.75	3				
50			25	20.92	20.87	20.85	3	36	19			20.89	20.87	20.75	3				
50			50	20.92	20.87	20.85	3	36	39			20.89	20.87	20.75	3				
EUT with Power Reduction (P-Sensor NOT Triggered)																			
20M	16QAM	1	0	20.95	20.92	20.85	3	15M	16QAM	1	0	20.89	20.87	20.75	3				
		1	50	20.92	20.87	20.85	3			1	37	20.87	20.87	20.75	3				
		1	99	20.92	20.87	20.85	3			1	74	20.87	20.87	20.75	3				
		50	0	20.92	20.87	20.85	3			36	0	20.89	20.87	20.75	3				
		50	25	20.92	20.87	20.85	3			36	19	20.89	20.87	20.75	3				
		50	50	20.92	20.87	20.85	3			36	39	20.89	20.87	20.75	3				
EUT with Power Reduction (P-Sensor NOT Triggered)																			
20M	64QAM	1	0	20.95	20.92	20.85	3	15M	64QAM	1	0	20.89	20.87	20.75	3				
		1	50	20.92	20.87	20.85	3			1	37	20.87	20.87	20.75	3				
		1	99	20.92	20.87	20.85	3			1	74	20.87	20.87	20.75	3				
		50	0	20.92	20.87	20.85	3			36	0	20.89	20.87	20.75	3				
		50	25	20.92	20.87	20.85	3			36	19	20.89	20.87	20.75	3				
		50	50	20.92	20.87	20.85	3			36	39	20.89	20.87	20.75	3				



# FCC SAR Test Report

LTE Band 66																	
EUT without Power Reduction (P-Sensor NOT Triggered)																	
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)		
		Channel		132022	132322	132622				Channel		131997	132322	132647			
		Frequency (MHz)		1715.0	1745.0	1775.0				Frequency (MHz)		1712.5	1745.0	1777.5			
10M	QPSK	1	0	23.73	23.68	23.75	0	5M	QPSK	1	0	23.81	23.76	23.54	0		
		1	24	23.64	23.52	23.47	0			1	12	23.57	23.52	23.40	0		
		1	49	23.51	23.60	23.39	0			1	24	23.63	23.46	23.30	0		
		25	0	22.69	22.78	22.57	1			12	0	22.71	22.62	22.45	1		
		25	12	22.72	22.54	22.60	1			12	6	22.63	22.62	22.56	1		
		25	25	22.60	22.57	22.46	1			12	13	22.55	22.45	22.35	1		
		50	0	22.57	22.74	22.67	1			25	0	22.66	22.65	22.43	1		
	16QAM	1	0	23.26	23.22	23.15	1		16QAM	1	0	23.30	23.19	23.15	1		
		1	24	22.96	23.04	22.98	1			1	12	23.09	23.22	22.98	1		
		1	49	22.98	22.91	22.96	1			1	24	22.94	22.99	22.83	1		
		25	0	21.90	22.05	21.95	2			12	0	21.90	22.01	21.86	2		
		25	12	21.83	21.96	21.89	2			12	6	21.72	21.90	21.74	2		
		25	25	21.70	21.86	21.81	2			12	13	21.78	21.69	21.77	2		
		50	0	21.76	21.78	21.69	2			25	0	21.73	21.71	21.72	2		
	64QAM	1	0	22.10	22.13	22.08	2		64QAM	1	0	21.99	22.04	21.92	2		
		1	24	21.75	21.80	21.68	2			1	12	21.83	21.72	21.75	2		
		1	49	21.78	21.68	21.72	2			1	24	21.82	21.76	21.69	2		
		25	0	20.80	20.81	20.86	3			12	0	20.96	20.76	20.86	3		
		25	12	20.85	20.84	20.81	3			12	6	20.78	20.88	20.83	3		
		25	25	20.78	20.58	20.56	3			12	13	20.66	20.63	20.71	3		
		50	0	20.84	20.81	20.69	3			25	0	20.79	20.75	20.74	3		
	EUT with Power Reduction (P-Sensor Triggered)																
	BW	MCS Index	RB Size	RB Offset	Low	Mid	High		3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
			Channel		132022	132322	132622					Channel		131997	132322	132647	
Frequency (MHz)			1715.0	1745.0	1775.0	Frequency (MHz)		1712.5				1745.0	1777.5				
10M	QPSK	1	0	21.65	21.58	21.66	0	5M	QPSK	1	0	21.73	21.66	21.57	0		
		1	24	21.37	21.37	21.34	0			1	12	21.35	21.42	21.29	0		
		1	49	21.59	21.49	21.48	0			1	24	21.46	21.45	21.32	0		
		25	0	20.65	20.70	20.56	1			12	0	20.57	20.69	20.42	1		
		25	12	20.46	20.45	20.47	1			12	6	20.45	20.40	20.40	1		
		25	25	20.43	20.44	20.42	1			12	13	20.41	20.42	20.44	1		
		50	0	20.58	20.61	20.58	1			25	0	20.65	20.60	20.40	1		
	16QAM	1	0	20.78	20.75	20.79	1		16QAM	1	0	20.73	20.85	20.76	1		
		1	24	20.64	20.65	20.67	1			1	12	20.75	20.71	20.65	1		
		1	49	20.77	20.86	20.79	1			1	24	20.74	20.77	20.78	1		
		25	0	19.71	19.71	19.77	2			12	0	19.77	19.70	19.69	2		
		25	12	19.58	19.63	19.61	2			12	6	19.66	19.55	19.53	2		
		25	25	19.64	19.63	19.55	2			12	13	19.54	19.60	19.66	2		
		50	0	19.67	19.50	19.44	2			25	0	19.57	19.59	19.45	2		
	64QAM	1	0	19.63	19.61	19.63	2		64QAM	1	0	19.56	19.65	19.57	2		
		1	24	19.59	19.63	19.54	2			1	12	19.60	19.67	19.64	2		
		1	49	19.52	19.68	19.66	2			1	24	19.62	19.58	19.64	2		
		25	0	18.79	18.58	18.69	3			12	0	18.74	18.71	18.67	3		
		25	12	18.69	18.64	18.59	3			12	6	18.71	18.62	18.56	3		
		25	25	18.68	18.61	18.62	3			12	13	18.61	18.49	18.54	3		
		50	0	18.68	18.63	18.64	3			25	0	18.66	18.54	18.61	3		

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LTE Band 66																	
EUT without Power Reduction (P-Sensor NOT Triggered)																	
BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)		
		Channel		131987	132322	132657				Channel		131979	132322	132665			
		Frequency (MHz)		1711.5	1745.5	1778.5				Frequency (MHz)		1710.7	1745.0	1779.3			
3M	QPSK	1	0	23.77	23.75	23.72	0	1.4M	QPSK	1	0	23.69	23.78	23.65	0		
		1	7	23.68	23.53	23.52	0			1	2	23.54	23.56	23.42	0		
		1	14	23.62	23.49	23.45	0			1	5	23.53	23.62	23.51	0		
		8	0	22.79	22.69	22.66	1			3	0	23.83	23.72	23.62	0		
		8	3	22.67	22.64	22.53	1			3	1	23.66	23.57	23.55	0		
		8	7	22.57	22.46	22.48	1			3	3	23.64	23.57	23.49	0		
		15	0	22.68	22.68	22.50	1			6	0	22.70	22.58	22.49	1		
	16QAM	1	0	23.24	23.29	23.16	1		16QAM	1	0	23.23	23.26	23.22	1		
		1	7	23.14	23.20	23.13	1			1	2	22.97	23.06	23.09	1		
		1	14	22.99	23.05	22.98	1			1	5	22.93	22.87	22.98	1		
		8	0	22.01	22.01	22.02	2			3	0	22.85	23.07	22.98	1		
		8	3	21.94	21.87	21.84	2			3	1	22.93	22.87	22.82	1		
		8	7	21.80	21.80	21.69	2			3	3	22.68	22.84	22.81	1		
		15	0	21.85	21.70	21.78	2			6	0	21.77	21.72	21.75	2		
	64QAM	1	0	22.11	22.08	22.02	2		64QAM	1	0	22.05	22.11	21.91	2		
		1	7	21.84	21.82	21.67	2			1	2	21.90	21.76	21.74	2		
		1	14	21.85	21.62	21.76	2			1	5	21.80	21.83	21.68	2		
		8	0	20.79	20.89	20.94	3			3	0	21.93	21.82	21.82	2		
		8	3	20.72	20.78	20.67	3			3	1	21.74	21.80	21.75	2		
		8	7	20.75	20.68	20.59	3			3	3	21.65	21.59	21.63	2		
		15	0	20.90	20.71	20.68	3			6	0	20.79	20.77	20.65	3		
	EUT with Power Reduction (P-Sensor Triggered)																
	BW	MCS Index	RB Size	RB Offset	Low	Mid	High		3GPP MPR (dB)	BW	MCS Index	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)
			Channel		131987	132322	132657					Channel		131979	132322	132665	
Frequency (MHz)			1711.5	1745.5	1778.5	Frequency (MHz)		1710.7				1745.0	1779.3				
3M	QPSK	1	0	21.70	21.60	21.73	0	1.4M	QPSK	1	0	21.70	21.56	21.66	0		
		1	7	21.39	21.47	21.40	0			1	2	21.79	21.68	21.78	0		
		1	14	21.54	21.52	21.51	0			1	5	21.67	21.53	21.63	0		
		8	0	20.66	20.65	20.61	1			3	0	21.73	21.59	21.69	0		
		8	3	20.48	20.43	20.40	1			3	1	21.74	21.66	21.75	0		
		8	7	20.31	20.52	20.47	1			3	3	21.74	21.60	21.70	0		
		15	0	20.61	20.54	20.58	1			6	0	20.74	20.60	20.70	1		
	16QAM	1	0	20.71	20.69	20.75	1		16QAM	1	0	20.99	20.85	20.95	1		
		1	7	20.72	20.68	20.62	1			1	2	20.98	20.97	20.96	1		
		1	14	20.76	20.70	20.63	1			1	5	20.99	20.88	20.98	1		
		8	0	19.81	19.66	19.76	2			3	0	20.82	20.68	20.78	1		
		8	3	19.55	19.50	19.60	2			3	1	20.80	20.66	20.76	1		
		8	7	19.66	19.66	19.66	2			3	3	20.77	20.63	20.73	1		
		15	0	19.57	19.59	19.48	2			6	0	19.93	19.79	19.89	2		
	64QAM	1	0	19.57	19.70	19.66	2		64QAM	1	0	19.95	19.81	19.91	2		
		1	7	19.55	19.53	19.62	2			1	2	19.98	19.91	19.95	2		
		1	14	19.61	19.51	19.63	2			1	5	19.96	19.88	19.98	2		
		8	0	18.58	18.72	18.62	3			3	0	19.93	19.79	19.89	2		
		8	3	18.62	18.62	18.73	3			3	1	20.00	19.86	19.96	2		
		8	7	18.54	18.62	18.64	3			3	3	19.88	19.74	19.84	2		
		15	0	18.62	18.53	18.54	3			6	0	18.81	18.67	18.77	3		

# FCC SAR Test Report

## <BT/WLAN AX200NGW Module>

### <WLAN 2.4G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
802.11b	1	2412	14.93	14.91	17.91
	6	2437	14.99	14.93	17.98
	11	2462	14.90	14.89	17.95

### <WLAN 5.3G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
802.11ac (VHT160)	50	5250	13.42	13.41	16.43

### <WLAN 5.6G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
802.11ac (VHT160)	114	5570	13.45	13.47	16.41

### <WLAN 5.8G>

Mode	Channel	Frequency (MHz)	Average Power (Ant-0)	Average Power (Ant-1)	Average Power (Ant-0 + Ant-1)
802.11ac (VHT80)	155	5775	13.42	13.43	16.42

### <Bluetooth>

Mode	Channel	Frequency (MHz)	Average Power
Bluetooth EDR	0	2402	9.69
	39	2441	9.86
	78	2480	10.19
Bluetooth LE	0	2402	7.60
	19	2440	8.00
	39	2480	8.38

## 4.7 SAR Testing Results

### 4.7.1 SAR Test Reduction Considerations

#### <KDB 447498 D01, General RF Exposure Guidance>

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

- (1)  $\leq 0.8$  W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is  $\leq 100$  MHz
- (2)  $\leq 0.6$  W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
- (3)  $\leq 0.4$  W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is  $\geq 200$  MHz

When SAR is not measured at the maximum power level allowed for production units, the measured SAR will be scaled to the maximum tune-up tolerance limit to determine compliance. The scaling factor for the tune-up power is defined as maximum tune-up limit (mW) / measured conducted power (mW). The reported SAR would be calculated by measured SAR x tune-up power scaling factor.

The SAR has been measured with highest transmission duty factor supported by the test mode tools for WLAN and/or Bluetooth. When the transmission duty factor could not achieve 100%, the reported SAR will be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up power. The scaling factor for the duty factor is defined as 100% / transmission duty cycle (%). The reported SAR would be calculated by measured SAR x tune-up power scaling factor x duty cycle scaling factor.

#### <KDB 941225 D01, 3G SAR Measurement Procedures>

The mode tested for SAR is referred to as the primary mode. The equivalent modes considered for SAR test reduction are denoted as secondary modes. Both primary and secondary modes must be in the same frequency band. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is  $\leq 1/4$  dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is  $\leq 1.2$  W/kg, SAR measurement is not required for the secondary mode.

#### <KDB 941225 D05, SAR Evaluation Considerations for LTE Devices>

- (1) QPSK with 1 RB and 50% RB allocation

Start with the largest channel bandwidth and measure SAR, 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; 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.

## FCC SAR Test Report

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### (2) 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 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.

### (3) Higher order modulations

SAR is required only when the highest maximum output power for the configuration in the higher order modulation is  $>1/2$  dB higher than the same configuration in QPSK or when the reported SAR for the QPSK configuration is  $> 1.45$  W/kg.

### (4) Other channel bandwidth

SAR is required when the highest maximum output power of the smaller channel bandwidth is  $>1/2$  dB higher than the equivalent channel configurations in the largest channel bandwidth configuration or the reported SAR of a configuration for the largest channel bandwidth is  $> 1.45$  W/kg.

### <KDB 248227 D01, SAR Guidance for Wi-Fi Transmitters>

- (1) For handsets operating next to ear, hotspot mode or mini-tablet configurations, the initial test position procedures were applied. The test position with the highest extrapolated peak SAR will be used as the initial test position. When the reported SAR of initial test position is  $\leq 0.4$  W/kg, SAR testing for remaining test positions is not required. Otherwise, SAR is evaluated at the subsequent highest peak SAR positions until the reported SAR result is  $\leq 0.8$  W/kg or all test positions are measured.
- (2) For WLAN 2.4 GHz, the highest measured maximum output power channel for DSSS was selected for SAR measurement. When the reported SAR is  $\leq 0.8$  W/kg, no further SAR testing is required. Otherwise, SAR is evaluated at the next highest measured output power channel. When any reported SAR is  $>1.2$  W/kg, SAR is required for the third channel. For OFDM modes (802.11g/n), SAR is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and it is  $\leq 1.2$  W/kg.
- (3) For WLAN 5GHz, the initial test configuration was selected according to the transmission mode with the highest maximum output power. When the reported SAR of initial test configuration is  $> 0.8$  W/kg, SAR is required for the subsequent highest measured output power channel until the reported SAR result is  $\leq 1.2$  W/kg or all required channels are measured. For other transmission modes, SAR is not required when the highest reported SAR for initial test configuration is adjusted by the ratio of subsequent test configuration to initial test configuration specified maximum output power and it is  $\leq 1.2$  W/kg.
- (4) For WLAN MIMO mode, the power-based standalone SAR test exclusion or the sum of SAR provision in KDB 447498 to determine simultaneous transmission SAR test exclusion should be applied. Otherwise, SAR for MIMO mode will be measured with all applicable antennas transmitting simultaneously at the specified maximum output power of MIMO operation.

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## 4.7.2 SAR Results for Body Exposure Condition

Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Ch.	P-Sensor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	WCDMA II	RMC12.2K	Rear Face	0	9400	w/o	24.5	23.62	1.22	-0.05	0.572	0.70
	WCDMA II	RMC12.2K	Left Side	0	9400	w/o	24.5	23.62	1.22	0.03	0.181	0.22
	WCDMA II	RMC12.2K	Right Side	0	9400	w/o	24.5	23.62	1.22	0.00	<0.001	0.00
	WCDMA II	RMC12.2K	Top Side	0	9400	w/o	24.5	23.62	1.22	-0.05	0.315	0.38
	WCDMA II	RMC12.2K	Bottom Side	0	9400	w/o	24.5	23.62	1.22	0.00	<0.001	0.00
01	WCDMA II	RMC12.2K	Rear Face	0	9262	w/o	24.5	23.58	1.24	-0.02	0.628	0.78
	WCDMA II	RMC12.2K	Rear Face	0	9538	w/o	24.5	23.54	1.25	0.11	0.602	0.75
	WCDMA IV	RMC12.2K	Rear Face	0	1413	w/o	24.5	23.76	1.19	-0.03	0.951	1.13
	WCDMA IV	RMC12.2K	Left Side	0	1413	w/o	24.5	23.76	1.19	0.11	0.231	0.27
	WCDMA IV	RMC12.2K	Right Side	0	1413	w/o	24.5	23.76	1.19	0.00	<0.001	0.00
	WCDMA IV	RMC12.2K	Top Side	0	1413	w/o	24.5	23.76	1.19	0.05	0.451	0.54
	WCDMA IV	RMC12.2K	Bottom Side	0	1413	w/o	24.5	23.76	1.19	0.00	<0.001	0.00
02	WCDMA IV	RMC12.2K	Rear Face	0	1312	w/o	24.5	23.67	1.21	-0.14	0.962	1.16
	WCDMA IV	RMC12.2K	Rear Face	0	1513	w/o	24.5	23.60	1.23	0.12	0.856	1.05
	WCDMA IV	RMC12.2K	Rear Face	0	1312	w/o	24.5	23.67	1.21	0.03	0.948	1.15
	WCDMA V	RMC12.2K	Rear Face	0	4182	w/	23.5	23.48	1.00	0.11	0.814	0.81
	WCDMA V	RMC12.2K	Rear Face	2	4182	w/o	24.5	24.17	1.08	-0.05	0.433	0.47
	WCDMA V	RMC12.2K	Left Side	0	4182	w/o	24.5	24.17	1.08	0.03	0.101	0.11
	WCDMA V	RMC12.2K	Right Side	0	4182	w/o	24.5	24.17	1.08	0.07	0.047	0.05
	WCDMA V	RMC12.2K	Top Side	0	4182	w/	23.5	23.48	1.00	-0.05	0.577	0.58
	WCDMA V	RMC12.2K	Top Side	2	4182	w/o	24.5	24.17	1.08	-0.03	0.262	0.28
	WCDMA V	RMC12.2K	Bottom Side	0	4182	w/o	24.5	24.17	1.08	0	<0.001	0.00
03	WCDMA V	RMC12.2K	Rear Face	0	4132	w/	23.5	23.44	1.01	-0.02	0.880	0.89
	WCDMA V	RMC12.2K	Rear Face	0	4233	w/	23.5	23.41	1.02	-0.07	0.744	0.76
	WCDMA V	RMC12.2K	Rear Face	0	4132	w/	23.5	23.44	1.01	0.13	0.861	0.87

Note: The "< 0.001" means there is no SAR value or the SAR is too low to be measured.

Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Ch.	RB#	RB Offset	P-Sensor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
04	LTE 5	QPSK10M	Rear Face	0	20600	1	0	w/	23.0	22.86	1.03	0.01	0.665	0.68
	LTE 5	QPSK10M	Rear Face	2	20600	1	0	w/o	24.5	23.80	1.17	0.12	0.471	0.55
	LTE 5	QPSK10M	Left Side	0	20600	1	0	w/o	24.5	23.80	1.17	-0.08	0.074	0.09
	LTE 5	QPSK10M	Right Side	0	20600	1	0	w/o	24.5	23.80	1.17	0.03	0.038	0.04
	LTE 5	QPSK10M	Top Side	0	20600	1	0	w/	23.0	22.86	1.03	-0.06	0.421	0.43
	LTE 5	QPSK10M	Top Side	2	20600	1	0	w/o	24.5	23.80	1.17	0.04	0.292	0.34
	LTE 5	QPSK10M	Bottom Side	0	20600	1	0	w/o	24.5	23.80	1.17	0	<0.001	0.00
	LTE 5	QPSK10M	Rear Face	0	20600	25	0	w/	22.0	21.92	1.02	0.05	0.536	0.55
	LTE 5	QPSK10M	Rear Face	2	20600	25	0	w/o	23.5	22.84	1.16	0.09	0.371	0.43
	LTE 5	QPSK10M	Left Side	0	20600	25	0	w/o	23.5	22.84	1.16	-0.01	0.064	0.07
	LTE 5	QPSK10M	Right Side	0	20600	25	0	w/o	23.5	22.84	1.16	0	<0.001	0.00
	LTE 5	QPSK10M	Top Side	0	20600	25	0	w/	22.0	21.92	1.02	0.08	0.273	0.28
	LTE 5	QPSK10M	Top Side	2	20600	25	0	w/o	23.5	22.84	1.16	-0.13	0.229	0.27
	LTE 5	QPSK10M	Bottom Side	0	20600	25	0	w/o	23.5	22.84	1.16	0	<0.001	0.00
	LTE 5	QPSK10M	Rear Face	0	20450	1	0	w/	23.0	22.66	1.08	0.05	0.554	0.60
	LTE 5	QPSK10M	Rear Face	0	20525	1	0	w/	23.0	22.71	1.07	0.04	0.547	0.59

Note: The "< 0.001" means there is no SAR value or the SAR is too low to be measured.

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Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Ch.	RB#	RB Offset	P-Sensor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	LTE 7	QPSK20M	Rear Face	0	20850	1	0	w/	21.0	20.63	1.09	0.06	0.659	0.72
	LTE 7	QPSK20M	Rear Face	2	20850	1	0	w/o	24.5	24.00	1.12	-0.07	0.792	0.89
	LTE 7	QPSK20M	Left Side	0	20850	1	0	w/o	24.5	24.00	1.12	-0.02	0.127	0.14
	LTE 7	QPSK20M	Right Side	0	20850	1	0	w/o	24.5	24.00	1.12	0.01	0.027	0.03
	LTE 7	QPSK20M	Top Side	0	20850	1	0	w/	21.0	20.63	1.09	0.07	0.339	0.37
	LTE 7	QPSK20M	Top Side	2	20850	1	0	w/o	24.5	24.00	1.12	0.14	0.381	0.43
	LTE 7	QPSK20M	Bottom Side	0	20850	1	0	w/o	24.5	24.00	1.12	0.02	0.027	0.03
	LTE 7	QPSK20M	Rear Face	0	20850	50	0	w/	21.0	20.62	1.09	-0.09	0.545	0.59
	LTE 7	QPSK20M	Rear Face	2	20850	50	0	w/o	23.5	22.93	1.14	0.03	0.635	0.72
	LTE 7	QPSK20M	Left Side	0	20850	50	0	w/o	23.5	22.93	1.14	0.12	0.103	0.12
	LTE 7	QPSK20M	Right Side	0	20850	50	0	w/o	23.5	22.93	1.14	-0.08	<0.001	0.00
	LTE 7	QPSK20M	Top Side	0	20850	50	0	w/	21.0	20.62	1.09	0.01	0.278	0.30
	LTE 7	QPSK20M	Top Side	2	20850	50	0	w/o	23.5	22.93	1.14	-0.06	0.295	0.34
	LTE 7	QPSK20M	Bottom Side	0	20850	50	0	w/o	23.5	22.93	1.14	0.07	<0.001	0.00
	LTE 7	QPSK20M	Rear Face	2	21100	1	0	w/o	24.5	23.94	1.14	-0.13	0.825	0.94
05	LTE 7	QPSK20M	Rear Face	2	21350	1	0	w/o	24.5	23.96	1.13	-0.01	0.844	0.95
	LTE 7	QPSK20M	Rear Face	2	20850	100	0	w/o	23.5	22.90	1.15	-0.08	0.618	0.71
	LTE 7	QPSK20M	Rear Face	2	21350	1	0	w/o	24.5	23.96	1.13	0.02	0.831	0.94
06	LTE 12	QPSK10M	Rear Face	0	23130	1	0	w/o	24.5	23.90	1.15	-0.01	0.718	0.83
	LTE 12	QPSK10M	Left Side	0	23130	1	0	w/o	24.5	23.90	1.15	0.03	0.071	0.08
	LTE 12	QPSK10M	Right Side	0	23130	1	0	w/o	24.5	23.90	1.15	0.00	<0.001	0.00
	LTE 12	QPSK10M	Top Side	0	23130	1	0	w/o	24.5	23.90	1.15	-0.05	0.619	0.71
	LTE 12	QPSK10M	Bottom Side	0	23130	1	0	w/o	24.5	23.90	1.15	0.00	<0.001	0.00
	LTE 12	QPSK10M	Rear Face	0	23130	25	0	w/o	23.5	22.90	1.15	0.11	0.565	0.65
	LTE 12	QPSK10M	Left Side	0	23130	25	0	w/o	23.5	22.90	1.15	0.07	0.052	0.06
	LTE 12	QPSK10M	Right Side	0	23130	25	0	w/o	23.5	22.90	1.15	0.00	<0.001	0.00
	LTE 12	QPSK10M	Top Side	0	23130	25	0	w/o	23.5	22.90	1.15	0.05	0.514	0.59
	LTE 12	QPSK10M	Bottom Side	0	23130	25	0	w/o	23.5	22.90	1.15	0.00	<0.001	0.00
	LTE 12	QPSK10M	Rear Face	0	23060	1	0	w/o	24.5	23.80	1.17	-0.12	0.684	0.80
	LTE 12	QPSK10M	Rear Face	0	23095	1	0	w/o	24.5	23.86	1.16	0.07	0.708	0.82
	LTE 12	QPSK10M	Rear Face	0	23130	50	0	w/o	23.5	22.85	1.16	0.09	0.604	0.70
07	LTE 13	QPSK10M	Rear Face	0	23230	1	0	w/	23.0	22.88	1.03	0.02	0.898	0.92
	LTE 13	QPSK10M	Rear Face	2	23230	1	0	w/o	24.5	23.88	1.15	-0.04	0.691	0.79
	LTE 13	QPSK10M	Left Side	0	23230	1	0	w/o	24.5	23.88	1.15	-0.03	0.128	0.15
	LTE 13	QPSK10M	Right Side	0	23230	1	0	w/o	24.5	23.88	1.15	0.08	0.095	0.11
	LTE 13	QPSK10M	Top Side	0	23230	1	0	w/	23.0	22.88	1.03	0.01	0.689	0.71
	LTE 13	QPSK10M	Top Side	2	23230	1	0	w/o	24.5	23.88	1.15	0.13	0.637	0.73
	LTE 13	QPSK10M	Bottom Side	0	23230	1	0	w/o	24.5	23.88	1.15	-0.05	0.077	0.09
	LTE 13	QPSK10M	Rear Face	0	23230	25	0	w/	22.0	21.95	1.01	0.06	0.701	0.71
	LTE 13	QPSK10M	Rear Face	2	23230	25	0	w/o	23.5	22.85	1.16	-0.11	0.551	0.64
	LTE 13	QPSK10M	Left Side	0	23230	25	0	w/o	23.5	22.85	1.16	-0.08	0.103	0.12
	LTE 13	QPSK10M	Right Side	0	23230	25	0	w/o	23.5	22.85	1.16	-0.01	0.081	0.09
	LTE 13	QPSK10M	Top Side	0	23230	25	0	w/	22.0	21.95	1.01	0.02	0.599	0.60
	LTE 13	QPSK10M	Top Side	2	23230	25	0	w/o	23.5	22.85	1.16	0.05	0.517	0.60
	LTE 13	QPSK10M	Bottom Side	0	23230	25	0	w/o	23.5	22.85	1.16	-0.09	0.072	0.08
	LTE 13	QPSK10M	Rear Face	0	23230	50	0	w/	22.0	21.84	1.04	-0.07	0.714	0.74
	LTE 13	QPSK10M	Rear Face	0	23230	1	0	w/	23.0	22.88	1.03	0.02	0.857	0.88

Note: The "< 0.001" means there is no SAR value or the SAR is too low to be measured.

# FCC SAR Test Report

Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Ch.	RB#	RB Offset	P-Sensor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)	
08	LTE 14	QPSK10M	Rear Face	0	23330	1	0	w/	23.0	22.95	1.01	-0.04	0.894	<b>0.90</b>	
	LTE 14	QPSK10M	Rear Face	2	23330	1	0	w/o	24.5	23.85	1.16	-0.16	0.748	0.87	
	LTE 14	QPSK10M	Left Side	0	23330	1	0	w/o	24.5	23.85	1.16	0.02	0.127	0.15	
	LTE 14	QPSK10M	Right Side	0	23330	1	0	w/o	24.5	23.85	1.16	-0.03	0.082	0.10	
	LTE 14	QPSK10M	Top Side	0	23330	1	0	w/	23.0	22.95	1.01	0.01	0.764	0.77	
	LTE 14	QPSK10M	Top Side	2	23330	1	0	w/o	24.5	23.85	1.16	0.02	0.683	0.79	
	LTE 14	QPSK10M	Bottom Side	0	23330	1	0	w/o	24.5	23.85	1.16	0.07	0.082	0.10	
	LTE 14	QPSK10M	Rear Face	0	23330	25	0	w/	22.0	21.98	1.00	-0.08	0.699	0.70	
	LTE 14	QPSK10M	Rear Face	2	23330	25	0	w/o	23.5	22.87	1.16	0.11	0.583	0.68	
	LTE 14	QPSK10M	Left Side	0	23330	25	0	w/o	23.5	22.87	1.16	-0.02	0.101	0.12	
	LTE 14	QPSK10M	Right Side	0	23330	25	0	w/o	23.5	22.87	1.16	0.02	0.063	0.07	
	LTE 14	QPSK10M	Top Side	0	23330	25	0	w/	22.0	21.98	1.00	0.09	0.632	0.63	
	LTE 14	QPSK10M	Top Side	2	23330	25	0	w/o	23.5	22.87	1.16	0.06	0.552	0.64	
	LTE 14	QPSK10M	Bottom Side	0	23330	25	0	w/o	23.5	22.87	1.16	0.11	0.061	0.07	
	LTE 14	QPSK10M	Rear Face	0	23330	50	0	w/	22.0	21.93	1.02	0.14	0.729	0.74	
	LTE 14	QPSK10M	Rear Face	2	23330	50	0	w/o	23.5	22.72	1.20	0.03	0.652	0.78	
	LTE 14	QPSK10M	Rear Face	0	23330	1	0	w/	23.0	22.95	1.01	-0.08	0.871	0.88	
		LTE 25	QPSK20M	Rear Face	0	26590	1	0	w/o	24.5	23.75	1.19	0.02	0.526	0.63
		LTE 25	QPSK20M	Left Side	0	26590	1	0	w/o	24.5	23.75	1.19	-0.15	0.172	0.20
		LTE 25	QPSK20M	Right Side	0	26590	1	0	w/o	24.5	23.75	1.19	0.00	<0.001	0.00
LTE 25		QPSK20M	Top Side	0	26590	1	0	w/o	24.5	23.75	1.19	0.11	0.315	0.37	
LTE 25		QPSK20M	Bottom Side	0	26590	1	0	w/o	24.5	23.75	1.19	0.00	<0.001	0.00	
LTE 25		QPSK20M	Rear Face	0	26590	50	50	w/o	23.5	22.60	1.23	-0.15	0.403	0.50	
LTE 25		QPSK20M	Left Side	0	26590	50	50	w/o	23.5	22.60	1.23	0.02	0.133	0.16	
LTE 25		QPSK20M	Right Side	0	26590	50	50	w/o	23.5	22.60	1.23	0.00	<0.001	0.00	
LTE 25		QPSK20M	Top Side	0	26590	50	50	w/o	23.5	22.60	1.23	0.07	0.236	0.29	
LTE 25		QPSK20M	Bottom Side	0	26590	50	50	w/o	23.5	22.60	1.23	0.00	<0.001	0.00	
09		LTE 25	QPSK20M	Rear Face	0	26140	1	0	w/o	24.5	23.38	1.29	0.03	0.536	<b>0.69</b>
		LTE 25	QPSK20M	Rear Face	0	26365	1	0	w/o	24.5	23.50	1.26	0.16	0.503	0.63
	LTE 26	QPSK15M	Rear Face	0	26965	1	0	w/	23.0	22.92	1.02	0.05	0.701	0.72	
	LTE 26	QPSK15M	Rear Face	2	26965	1	0	w/o	24.5	23.90	1.15	0.02	0.523	0.60	
	LTE 26	QPSK15M	Left Side	0	26965	1	0	w/o	24.5	23.90	1.15	-0.07	0.087	0.10	
	LTE 26	QPSK15M	Right Side	0	26965	1	0	w/o	24.5	23.90	1.15	0	<0.001	0.00	
	LTE 26	QPSK15M	Top Side	0	26965	1	0	w/	23.0	22.92	1.02	0.03	0.394	0.40	
	LTE 26	QPSK15M	Top Side	2	26965	1	0	w/o	24.5	23.90	1.15	0.11	0.345	0.40	
	LTE 26	QPSK15M	Bottom Side	0	26965	1	0	w/o	24.5	23.90	1.15	0	<0.001	0.00	
	LTE 26	QPSK15M	Rear Face	0	26965	36	19	w/	22.0	21.90	1.02	0.01	0.491	0.50	
	LTE 26	QPSK15M	Rear Face	2	26965	36	19	w/o	23.5	22.85	1.16	0.04	0.408	0.47	
	LTE 26	QPSK15M	Left Side	0	26965	36	19	w/o	23.5	22.85	1.16	-0.07	0.066	0.08	
	LTE 26	QPSK15M	Right Side	0	26965	36	19	w/o	23.5	22.85	1.16	0	<0.001	0.00	
	LTE 26	QPSK15M	Top Side	0	26965	36	19	w/	22.0	21.90	1.02	0.06	0.303	0.31	
	LTE 26	QPSK15M	Top Side	2	26965	36	19	w/o	23.5	22.85	1.16	0.06	0.253	0.29	
	LTE 26	QPSK15M	Bottom Side	0	26965	36	19	w/o	23.5	22.85	1.16	0	<0.001	0.00	
10	LTE 26	QPSK15M	Rear Face	0	26765	1	0	w/	23.0	22.81	1.04	-0.01	0.749	<b>0.78</b>	
	LTE 26	QPSK15M	Rear Face	0	26865	1	0	w/	23.0	22.88	1.03	0.15	0.711	0.73	

**Note:** The "< 0.001" means there is no SAR value or the SAR is too low to be measured.



# FCC SAR Test Report

Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Ch.	RB#	RB Offset	P-Sensor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
11	LTE 30	QPSK10M	Rear Face	0	27710	1	0	w/o	23.0	22.25	1.19	-0.06	0.631	<b>0.75</b>
	LTE 30	QPSK10M	Left Side	0	27710	1	0	w/o	23.0	22.25	1.19	0.02	0.143	0.17
	LTE 30	QPSK10M	Right Side	0	27710	1	0	w/o	23.0	22.25	1.19	0.00	<0.001	0.00
	LTE 30	QPSK10M	Top Side	0	27710	1	0	w/o	23.0	22.25	1.19	0.15	0.533	0.63
	LTE 30	QPSK10M	Bottom Side	0	27710	1	0	w/o	23.0	22.25	1.19	0.00	<0.001	0.00
	LTE 30	QPSK10M	Rear Face	0	27710	25	0	w/o	22.0	21.31	1.17	-0.19	0.487	0.57
	LTE 30	QPSK10M	Left Side	0	27710	25	0	w/o	22.0	21.31	1.17	0.02	0.114	0.13
	LTE 30	QPSK10M	Right Side	0	27710	25	0	w/o	22.0	21.31	1.17	0.00	<0.001	0.00
	LTE 30	QPSK10M	Top Side	0	27710	25	0	w/o	22.0	21.31	1.17	0.02	0.449	0.53
	LTE 30	QPSK10M	Bottom Side	0	27710	25	0	w/o	22.0	21.31	1.17	0	<0.001	0.00
12	LTE 41	QPSK20M	Rear Face	0	40620	1	0	w/	23.0	22.89	1.03	0.03	0.475	<b>0.49</b>
	LTE 41	QPSK20M	Rear Face	2	40620	1	0	w/o	24.5	24.09	1.10	0.06	0.381	0.42
	LTE 41	QPSK20M	Left Side	0	40620	1	0	w/o	24.5	24.09	1.10	0.01	0.063	0.07
	LTE 41	QPSK20M	Right Side	0	40620	1	0	w/o	24.5	24.09	1.10	0	<0.001	0.00
	LTE 41	QPSK20M	Top Side	0	40620	1	0	w/	23.0	22.89	1.03	0.03	0.212	0.22
	LTE 41	QPSK20M	Top Side	2	40620	1	0	w/o	24.5	24.09	1.10	-0.16	0.182	0.20
	LTE 41	QPSK20M	Bottom Side	0	40620	1	0	w/o	24.5	24.09	1.10	0	<0.001	0.00
	LTE 41	QPSK20M	Rear Face	0	40620	50	0	w/	22.0	21.83	1.04	0.07	0.296	0.31
	LTE 41	QPSK20M	Rear Face	2	40620	50	0	w/o	23.5	22.98	1.13	0.02	0.267	0.30
	LTE 41	QPSK20M	Left Side	0	40620	50	0	w/o	23.5	22.98	1.13	0.05	0.047	0.05
	LTE 41	QPSK20M	Right Side	0	40620	50	0	w/o	23.5	22.98	1.13	-0.06	<0.001	0.00
	LTE 41	QPSK20M	Top Side	0	40620	50	0	w/	22.0	21.83	1.04	-0.01	0.162	0.17
	LTE 41	QPSK20M	Top Side	2	40620	50	0	w/o	23.5	22.98	1.13	0.01	0.139	0.16
	LTE 41	QPSK20M	Bottom Side	0	40620	50	0	w/o	23.5	22.98	1.13	0	<0.001	0.00
	LTE 41	QPSK20M	Rear Face	0	39750	1	0	w/	23.0	22.71	1.07	0.03	0.448	0.48
	LTE 41	QPSK20M	Rear Face	0	40185	1	0	w/	23.0	22.88	1.03	-0.04	0.411	0.42
	LTE 41	QPSK20M	Rear Face	0	41055	1	0	w/	23.0	22.86	1.03	0.13	0.367	0.38
	LTE 41	QPSK20M	Rear Face	0	41490	1	0	w/	23.0	22.84	1.04	0.05	0.308	0.32
	LTE 66	QPSK20M	Rear Face	0	132072	1	0	w/	22.0	21.81	1.04	-0.01	0.643	0.67
	13	LTE 66	QPSK20M	Rear Face	2	132072	1	0	w/o	24.5	23.90	1.15	0.01	0.731
LTE 66		QPSK20M	Left Side	0	132072	1	0	w/o	24.5	23.90	1.15	0.03	0.191	0.22
LTE 66		QPSK20M	Right Side	0	132072	1	0	w/o	24.5	23.90	1.15	-0.08	0.042	0.05
LTE 66		QPSK20M	Top Side	0	132072	1	0	w/	22.0	21.81	1.04	-0.11	0.301	0.31
LTE 66		QPSK20M	Top Side	2	132072	1	0	w/o	24.5	23.90	1.15	-0.16	0.354	0.41
LTE 66		QPSK20M	Bottom Side	0	132072	1	0	w/o	24.5	23.90	1.15	0.06	0.044	0.05
LTE 66		QPSK20M	Rear Face	0	132072	50	0	w/	21.0	20.76	1.06	-0.03	0.489	0.52
LTE 66		QPSK20M	Rear Face	2	132072	50	0	w/o	23.5	22.85	1.16	0.02	0.552	0.64
LTE 66		QPSK20M	Left Side	0	132072	50	0	w/o	23.5	22.85	1.16	0.11	0.153	0.18
LTE 66		QPSK20M	Right Side	0	132072	50	0	w/o	23.5	22.85	1.16	0.02	0.033	0.04
LTE 66		QPSK20M	Top Side	0	132072	50	0	w/	21.0	20.76	1.06	0.06	0.229	0.24
LTE 66		QPSK20M	Top Side	2	132072	50	0	w/o	23.5	22.85	1.16	0.02	0.278	0.32
LTE 66		QPSK20M	Bottom Side	0	132072	50	0	w/o	23.5	22.85	1.16	0.09	0.029	0.03
LTE 66		QPSK20M	Rear Face	2	132322	1	0	w/o	24.5	23.85	1.16	0.11	0.683	0.79
LTE 66		QPSK20M	Rear Face	2	132572	1	0	w/o	24.5	23.83	1.17	0.09	0.621	0.73
LTE 66		QPSK20M	Rear Face	2	132072	100	0	w/o	23.5	22.80	1.17	0.04	0.481	0.56

**Note:** The "< 0.001" means there is no SAR value or the SAR is too low to be measured.

# FCC SAR Test Report

## <BT/WLAN AX200NGW Module>

Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Ch.	Ant. Status	Duty Cycle	Crest Factor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	WLAN2.4G	802.11b	Rear Face	0	6	Ant 0	97.50	1.03	15.0	14.99	1.00	0.01	0.038	0.04
	WLAN2.4G	802.11b	Left Side	0	6	Ant 0	97.50	1.03	15.0	14.99	1.00	0.00	<0.001	0.00
	WLAN2.4G	802.11b	Right Side	0	6	Ant 0	97.50	1.03	15.0	14.99	1.00	0.00	<0.001	0.00
	WLAN2.4G	802.11b	Top Side	0	6	Ant 0	97.50	1.03	15.0	14.99	1.00	0.00	<0.001	0.00
	WLAN2.4G	802.11b	Bottom Side	0	6	Ant 0	97.50	1.03	15.0	14.99	1.00	-0.12	0.08	0.08
	WLAN2.4G	802.11b	Rear Face	0	6	Ant 1	98.30	1.02	15.0	14.93	1.02	0.08	0.101	0.11
	WLAN2.4G	802.11b	Left Side	0	6	Ant 1	98.30	1.02	15.0	14.93	1.02	0	<0.001	0.00
	WLAN2.4G	802.11b	Right Side	0	6	Ant 1	98.30	1.02	15.0	14.93	1.02	-0.19	0.048	0.05
	WLAN2.4G	802.11b	Top Side	0	6	Ant 1	98.30	1.02	15.0	14.93	1.02	0	<0.001	0.00
	WLAN2.4G	802.11b	Bottom Side	0	6	Ant 1	98.30	1.02	15.0	14.93	1.02	-0.14	0.211	0.22
	WLAN2.4G	802.11b	Rear Face	0	6	Ant 0+1	98.50	1.02	18.0	17.98	1.00	0.02	0.113	0.12
	WLAN2.4G	802.11b	Left Side	0	6	Ant 0+1	98.50	1.02	18.0	17.98	1.00	0	<0.001	0.00
	WLAN2.4G	802.11b	Right Side	0	6	Ant 0+1	98.50	1.02	18.0	17.98	1.00	0.013	0.053	0.05
	WLAN2.4G	802.11b	Top Side	0	6	Ant 0+1	98.50	1.02	18.0	17.98	1.00	0	<0.001	0.00
14	WLAN2.4G	802.11b	Bottom Side	0	6	Ant 0+1	98.50	1.02	18.0	17.98	1.00	-0.11	0.218	0.22
	WLAN2.4G	802.11b	Bottom Side	0	1	Ant 0+1	98.50	1.02	18.0	17.91	1.02	0.11	0.201	0.21
	WLAN2.4G	802.11b	Bottom Side	0	11	Ant 0+1	98.50	1.02	18.0	17.95	1.01	0.02	0.197	0.20
15	WLAN5.3G	802.11ac VHT160	Rear Face	0	50	Ant 0	98.80	1.01	13.5	13.42	1.02	-0.07	0.274	0.28
	WLAN5.3G	802.11ac VHT160	Left Side	0	50	Ant 0	98.80	1.01	13.5	13.42	1.02	0.03	0.173	0.18
	WLAN5.3G	802.11ac VHT160	Top Side	0	50	Ant 0	98.80	1.01	13.5	13.42	1.02	0	<0.001	0.00
	WLAN5.3G	802.11ac VHT160	Bottom Side	0	50	Ant 0	98.80	1.01	13.5	13.42	1.02	-0.05	0.046	0.05
	WLAN5.3G	802.11ac VHT160	Rear Face	0	50	Ant 1	98.80	1.01	13.5	13.41	1.02	-0.11	0.212	0.22
	WLAN5.3G	802.11ac VHT160	Right Side	0	50	Ant 1	98.80	1.01	13.5	13.41	1.02	0.03	0.075	0.08
	WLAN5.3G	802.11ac VHT160	Top Side	0	50	Ant 1	98.80	1.01	13.5	13.41	1.02	0	<0.001	0.00
	WLAN5.3G	802.11ac VHT160	Bottom Side	0	50	Ant 1	98.80	1.01	13.5	13.41	1.02	-0.07	0.049	0.05
	WLAN5.3G	802.11ac VHT160	Rear Face	0	50	Ant 0+1	98.80	1.01	16.5	16.43	1.02	-0.06	0.251	0.26
	WLAN5.3G	802.11ac VHT160	Left Side	0	50	Ant 0+1	98.80	1.01	16.5	16.43	1.02	0.11	0.162	0.17
	WLAN5.3G	802.11ac VHT160	Right Side	0	50	Ant 0+1	98.80	1.01	16.5	16.43	1.02	0.05	0.081	0.08
	WLAN5.3G	802.11ac VHT160	Top Side	0	50	Ant 0+1	98.80	1.01	16.5	16.43	1.02	0	<0.001	0.00
	WLAN5.3G	802.11ac VHT160	Bottom Side	0	50	Ant 0+1	98.80	1.01	16.5	16.43	1.02	0.09	0.071	0.07
16	WLAN5.6G	802.11ac VHT160	Rear Face	0	114	Ant 0	98.80	1.01	13.5	13.45	1.01	-0.07	0.250	0.26
	WLAN5.6G	802.11ac VHT160	Left Side	0	114	Ant 0	98.80	1.01	13.5	13.45	1.01	0.13	0.225	0.23
	WLAN5.6G	802.11ac VHT160	Top Side	0	114	Ant 0	98.80	1.01	13.5	13.45	1.01	0	<0.001	0.00
	WLAN5.6G	802.11ac VHT160	Bottom Side	0	114	Ant 0	98.80	1.01	13.5	13.45	1.01	0.01	0.049	0.05
	WLAN5.6G	802.11ac VHT160	Rear Face	0	114	Ant 1	98.80	1.01	13.5	13.47	1.01	-0.09	0.181	0.18
	WLAN5.6G	802.11ac VHT160	Right Side	0	114	Ant 1	98.80	1.01	13.5	13.47	1.01	0.03	0.108	0.11
	WLAN5.6G	802.11ac VHT160	Top Side	0	114	Ant 1	98.80	1.01	13.5	13.47	1.01	0	<0.001	0.00
	WLAN5.6G	802.11ac VHT160	Bottom Side	0	114	Ant 1	98.80	1.01	13.5	13.47	1.01	0.07	0.045	0.05
	WLAN5.6G	802.11ac VHT160	Rear Face	0	114	Ant 0+1	98.80	1.01	16.5	16.41	1.02	0.12	0.244	0.25
	WLAN5.6G	802.11ac VHT160	Left Side	0	114	Ant 0+1	98.80	1.01	16.5	16.41	1.02	-0.05	0.206	0.21
	WLAN5.6G	802.11ac VHT160	Right Side	0	114	Ant 0+1	98.80	1.01	16.5	16.41	1.02	-0.03	0.102	0.11
	WLAN5.6G	802.11ac VHT160	Top Side	0	114	Ant 0+1	98.80	1.01	16.5	16.41	1.02	0	<0.001	0.00
	WLAN5.6G	802.11ac VHT160	Bottom Side	0	114	Ant 0+1	98.80	1.01	16.5	16.41	1.02	0.06	0.037	0.04

**Note:** The “< 0.001” means there is no SAR value or the SAR is too low to be measured.

# FCC SAR Test Report

Plot No.	Band	Mode	Test Position	Separation Distance (mm)	Ch.	Ant. Status	Duty Cycle	Crest Factor	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Scaling Factor	Power Drift (dB)	Measured SAR-1g (W/kg)	Scaled SAR-1g (W/kg)
	WLAN5.8G	802.11.ac VHT80	Rear Face	0	155	Ant 0	97.80	1.02	13.5	13.42	1.02	0.13	0.155	0.16
	WLAN5.8G	802.11.ac VHT80	Left Side	0	155	Ant 0	97.80	1.02	13.5	13.42	1.02	-0.08	0.151	0.16
	WLAN5.8G	802.11.ac VHT80	Top Side	0	155	Ant 0	97.80	1.02	13.5	13.42	1.02	0	<0.001	0.00
	WLAN5.8G	802.11.ac VHT80	Bottom Side	0	155	Ant 0	97.80	1.02	13.5	13.42	1.02	-0.06	0.038	0.04
17	WLAN5.8G	802.11.ac VHT80	Rear Face	0	155	Ant 1	97.80	1.02	13.5	13.43	1.02	-0.03	0.210	0.22
	WLAN5.8G	802.11.ac VHT80	Right Side	0	155	Ant 1	97.80	1.02	13.5	13.43	1.02	-0.05	0.113	0.12
	WLAN5.8G	802.11.ac VHT80	Top Side	0	155	Ant 1	97.80	1.02	13.5	13.43	1.02	0	<0.001	0.00
	WLAN5.8G	802.11.ac VHT80	Bottom Side	0	155	Ant 1	97.80	1.02	13.5	13.43	1.02	-0.07	0.068	0.07
	WLAN5.8G	802.11.ac VHT80	Rear Face	0	155	Ant 0+1	97.80	1.02	16.5	16.42	1.02	0.02	0.197	0.20
	WLAN5.8G	802.11.ac VHT80	Left Side	0	155	Ant 0+1	97.80	1.02	16.5	16.42	1.02	-0.03	0.169	0.18
	WLAN5.8G	802.11.ac VHT80	Right Side	0	155	Ant 0+1	97.80	1.02	16.5	16.42	1.02	0.01	0.091	0.09
	WLAN5.8G	802.11.ac VHT80	Top Side	0	155	Ant 0+1	97.80	1.02	16.5	16.42	1.02	0	<0.001	0.00
	WLAN5.8G	802.11.ac VHT80	Bottom Side	0	155	Ant 0+1	97.80	1.02	16.5	16.42	1.02	0.08	0.065	0.07
	BT	BDR	Rear Face	0	78	Ant 1	77.10	1.30	11.0	10.19	1.21	0	<0.001	0.00
	BT	BDR	Right Side	0	78	Ant 1	77.10	1.30	11.0	10.19	1.21	0	<0.001	0.00
	BT	BDR	Left Side	0	78	Ant 1	77.10	1.30	11.0	10.19	1.21	0	<0.001	0.00
	BT	BDR	Top Side	0	78	Ant 1	77.10	1.30	11.0	10.19	1.21	0	<0.001	0.00
	BT	BDR	Bottom Side	0	78	Ant 1	77.10	1.30	11.0	10.19	1.21	0.02	0.048	0.08
	BT	BDR	Bottom Side	0	0	Ant 1	77.10	1.30	11.0	9.69	1.35	0.13	0.046	0.08
18	BT	BDR	Bottom Side	0	39	Ant 1	77.10	1.30	11.0	9.86	1.30	-0.1	0.055	0.09

**Note:** The “< 0.001” means there is no SAR value or the SAR is too low to be measured.

**4.7.3 SAR Measurement Variability**

According to KDB 865664 D01, SAR measurement variability was 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. Alternatively, if the highest measured SAR for both head and body tissue-equivalent media are  $\leq 1.45$  W/kg and the ratio of these highest SAR values, i.e., largest divided by smallest value, is  $\leq 1.10$ , the highest SAR configuration for either head or body tissue-equivalent medium maybe used to perform the repeated measurement. These additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

SAR repeated measurement procedure:

1. When the highest measured SAR is  $< 0.80$  W/kg, repeated measurement is not required.
2. When the highest measured SAR is  $\geq 0.80$  W/kg, repeat that measurement once.
3. 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, perform a second repeated measurement.
4. If the ratio of largest to smallest SAR for the original, first and second repeated measurements is  $> 1.20$ , and the original, first or second repeated measurement is  $\geq 1.5$  W/kg, perform a third repeated measurement.

Band	Mode	Test Position	Ch.	Original Measured SAR-1g (W/kg)	1st Repeated SAR-1g (W/kg)	L/S Ratio	2nd Repeated SAR-1g (W/kg)	L/S Ratio	3rd Repeated SAR-1g (W/kg)	L/S Ratio
WCDMA IV	RMC12.2K	Rear Face	1312	0.962	0.948	1.01	N/A	N/A	N/A	N/A
WCDMA V	RMC12.2K	Rear Face	4132	0.88	0.861	1.02	N/A	N/A	N/A	N/A
LTE 7	QPSK20M	Rear Face	21350	0.844	0.831	1.02	N/A	N/A	N/A	N/A
LTE 13	QPSK10M	Rear Face	23230	0.898	0.857	1.05	N/A	N/A	N/A	N/A
LTE 14	QPSK10M	Rear Face	23330	0.894	0.871	1.03	N/A	N/A	N/A	N/A

# FCC SAR Test Report

## 4.7.4 Simultaneous Multi-band Transmission Evaluation

### <Possibilities of Simultaneous Transmission>

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

Simultaneous TX Combination	Capable Transmit Configurations	Body Exposure Condition
1	WWAN + WLAN2.4G	Yes
2	WWAN + WLAN5G	Yes
3	WWAN + BT	Yes
4	WLAN2.4G MIMO	Yes
5	WLAN2.4G Main + BT	Yes
6	WLAN5G MIMO	Yes
7	WLAN5G Main + BT	Yes
8	WLAN5G-MIMO + BT	Yes
9	WWAN + WLAN2.4G-MIMO	Yes
10	WWAN + WLAN5G-MIMO	Yes
11	WWAN + WLAN2.4G-MIMO +BT	Yes
12	WWAN + WLAN5G-MIMO +BT	Yes

#### Note:

1. The WLAN 2.4G and WLAN 5G cannot transmit simultaneously.
2. Condition 4 and 9 are covered by condition 11
3. Condition 6, 8 and 10 are covered by condition 12

# FCC SAR Test Report

## <Estimated SAR Calculation>

According to KDB 447498 D01, when standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR was estimated according to following formula to result in substantially conservative SAR values of  $\leq 0.4$  W/kg to determine simultaneous transmission SAR test exclusion.

$$\text{Estimated SAR} = \frac{\text{Max. Tune up Power}_{(mW)}}{\text{Min. Test Separation Distance}_{(mm)}} \times \frac{\sqrt{f_{(GHz)}}}{7.5}$$

If the minimum test separation distance is  $< 5$  mm, a distance of 5 mm is used for estimated SAR calculation. When the test separation distance is  $> 50$  mm, the 0.4 W/kg is used for SAR-1g.

Mode / Band	Frequency (GHz)	Max. Tune-up Power (dBm)	Test Position	Separation Distance (mm)	Estimated SAR (W/kg)
WCDMA II	1.9076	24.5	0.40	0.40	0.40
WCDMA IV	1.7526	24.5	0.40	0.40	0.40
WCDMA V	0.8466	24.5	0.40	0.40	0.40
LTE 2	1.91	24.5	0.40	0.40	0.40
LTE 4	1.755	24.5	0.40	0.40	0.40
LTE 5	0.849	24.5	0.40	0.40	0.40
LTE 7	2.57	24.5	0.40	0.40	0.40
LTE 12	0.716	24.5	0.40	0.40	0.40
LTE 13	0.787	24.5	0.40	0.40	0.40
LTE 14	0.798	24.5	0.40	0.40	0.40
LTE 17	0.716	24.5	0.40	0.40	0.40
LTE 25	1.915	24.5	0.40	0.40	0.40
LTE 26	0.849	24.5	0.40	0.40	0.40
LTE 30	2.315	23.0	0.40	0.40	0.40
LTE 38	2.62	24.5	0.40	0.40	0.40
LTE 41	2.69	24.5	0.40	0.40	0.40
LTE 66	1.78	24.5	0.40	0.40	0.40

# FCC SAR Test Report

## <BT/WLAN AX200NGW Module>

Mode / Band	Frequency (GHz)	Max. Tune-up Power (dBm)	Test Position	Separation Distance (mm)	Estimated SAR (W/kg)
WLAN (DTS)	2.462	18.0	0.40	0.40	0.40
WLAN (NII)	5.2	16.5	0.40	0.40	0.40
WLAN (NII)	5.3	16.5	0.40	0.40	0.40
WLAN (NII)	5.6	16.5	0.40	0.40	0.40
WLAN (NII)	5.8	16.5	0.40	0.40	0.40
BT(DSS)	2.48	11.0	0.40	0.40	0.40

**Note:**

1. The separation distance is determined from the outer housing of the EUT to the user.
2. When standalone SAR testing is not required, an estimated SAR can be applied to determine simultaneous transmission SAR test exclusion.

# FCC SAR Test Report

## <SAR Summation Analysis>

Simultaneous transmission SAR test exclusion is determined for each operating configuration and exposure condition according to the reported standalone SAR of each applicable simultaneous transmitting antenna. When the sum of SAR<sub>1g</sub> of all simultaneously transmitting antennas in an operating mode and exposure condition combination is within the SAR limit(SAR<sub>1g</sub> 1.6 W/kg), the simultaneous transmission SAR is not required. When the sum of SAR<sub>1g</sub> is greater than the SAR limit (SAR<sub>1g</sub> 1.6 W/kg), SAR test exclusion is determined by the SPLSR.

## <WWAN T77W968 + BT/WLAN AX200NGW Module>

Band	Position	A	1	B	2	C	3	A+B	A+C	A+3	B+3	C+3	A+1+3	A+2+3	
		Max WWAN	WLAN 2.4GHz Ant 0+1	Max WLAN 2.4GHz	WLAN 5GHz Ant 0+1	Max WLAN 5GHz	BT Ant 1	Summing result 1g SAR W/kg	Summing result 1g SAR W/kg	Summing result 1g SAR W/kg	Summing result 1g SAR W/kg	Summing result 1g SAR W/kg	Summing result 1g SAR W/kg	Summing result 1g SAR W/kg	Summing result 1g SAR W/kg
		1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg								
WCDMA II	Rear Face	0.78	0.12	0.12	0.26	0.28	0.00	0.90	1.06	0.78	0.12	0.28	0.90	1.04	
	Left Side	0.22	0.00	0.00	0.21	0.23	0.00	0.22	0.45	0.22	0.00	0.23	0.22	0.43	
	Right Side	0.00	0.05	0.05	0.11	0.12	0.00	0.05	0.12	0.00	0.05	0.12	0.05	0.11	
	Top Side	0.38	0.00	0.00	0.00	0.00	0.00	0.38	0.38	0.38	0.00	0.00	0.38	0.38	
	Bottom Side	0.00	0.22	0.22	0.07	0.07	0.09	0.22	0.07	0.09	0.31	0.16	0.31	0.16	
WCDMA IV	Rear Face	1.16	0.12	0.12	0.26	0.28	0.00	1.28	<b>1.44</b>	1.16	0.12	0.28	1.28	1.42	
	Left Side	0.27	0.00	0.00	0.21	0.23	0.00	0.27	0.50	0.27	0.00	0.23	0.27	0.48	
	Right Side	0.00	0.05	0.05	0.11	0.12	0.00	0.05	0.12	0.00	0.05	0.12	0.05	0.11	
	Top Side	0.54	0.00	0.00	0.00	0.00	0.00	0.54	0.54	0.54	0.00	0.00	0.54	0.54	
	Bottom Side	0.00	0.22	0.22	0.07	0.07	0.09	0.22	0.07	0.09	0.31	0.16	0.31	0.16	
WCDMA V	Rear Face	0.89	0.12	0.12	0.26	0.28	0.00	1.01	1.17	0.89	0.12	0.28	1.01	1.15	
	Left Side	0.11	0.00	0.00	0.21	0.23	0.00	0.11	0.34	0.11	0.00	0.23	0.11	0.32	
	Right Side	0.05	0.05	0.05	0.11	0.12	0.00	0.10	0.17	0.05	0.05	0.12	0.10	0.16	
	Top Side	0.58	0.00	0.00	0.00	0.00	0.00	0.58	0.58	0.58	0.00	0.00	0.58	0.58	
	Bottom Side	0.00	0.22	0.22	0.07	0.07	0.09	0.22	0.07	0.09	0.31	0.16	0.31	0.16	
LTE 5	Rear Face	0.68	0.12	0.12	0.26	0.28	0.00	0.80	0.96	0.68	0.12	0.28	0.80	0.94	
	Left Side	0.09	0.00	0.00	0.21	0.23	0.00	0.09	0.32	0.09	0.00	0.23	0.09	0.30	
	Right Side	0.04	0.05	0.05	0.11	0.12	0.00	0.09	0.16	0.04	0.05	0.12	0.09	0.15	
	Top Side	0.43	0.00	0.00	0.00	0.00	0.00	0.43	0.43	0.43	0.00	0.00	0.43	0.43	
	Bottom Side	0.00	0.22	0.22	0.07	0.07	0.09	0.22	0.07	0.09	0.31	0.16	0.31	0.16	



# FCC SAR Test Report

Band	Position	A	1	B	2	C	3	A+B	A+C	A+3	B+3	C+3	A+1+3	A+2+3
		Max WWAN	WLAN 2.4GHz Ant 0+1	Max WLAN 2.4GHz	WLAN 5GHz Ant 0+1	Max WLAN 5GHz	BT Ant 1	Summing result 1g SAR W/kg	Summing result 1g SAR W/kg	Summing result 1g SAR W/kg	Summing result 1g SAR W/kg	Summing result 1g SAR W/kg	Summing result 1g SAR W/kg	Summing result 1g SAR W/kg
		1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg							
LTE 7	Rear Face	0.95	0.12	0.12	0.26	0.28	0.00	1.07	1.23	0.95	0.12	0.28	1.07	1.21
	Left Side	0.14	0.00	0.00	0.21	0.23	0.00	0.14	0.37	0.14	0.00	0.23	0.14	0.35
	Right Side	0.03	0.05	0.05	0.11	0.12	0.00	0.08	0.15	0.03	0.05	0.12	0.08	0.14
	Top Side	0.43	0.00	0.00	0.00	0.00	0.00	0.43	0.43	0.43	0.00	0.00	0.43	0.43
	Bottom Side	0.03	0.22	0.22	0.07	0.07	0.09	0.25	0.10	0.12	0.31	0.16	0.34	0.19
LTE 12	Rear Face	0.83	0.12	0.12	0.26	0.28	0.00	0.95	1.11	0.83	0.12	0.28	0.95	1.09
	Left Side	0.08	0.00	0.00	0.21	0.23	0.00	0.08	0.31	0.08	0.00	0.23	0.08	0.29
	Right Side	0.00	0.05	0.05	0.11	0.12	0.00	0.05	0.12	0.00	0.05	0.12	0.05	0.11
	Top Side	0.71	0.00	0.00	0.00	0.00	0.00	0.71	0.71	0.71	0.00	0.00	0.71	0.71
	Bottom Side	0.00	0.22	0.22	0.07	0.07	0.09	0.22	0.07	0.09	0.31	0.16	0.31	0.16
LTE 13	Rear Face	0.92	0.12	0.12	0.26	0.28	0.00	1.04	1.20	0.92	0.12	0.28	1.04	1.18
	Left Side	0.15	0.00	0.00	0.21	0.23	0.00	0.15	0.38	0.15	0.00	0.23	0.15	0.36
	Right Side	0.11	0.05	0.05	0.11	0.12	0.00	0.16	0.23	0.11	0.05	0.12	0.16	0.22
	Top Side	0.71	0.00	0.00	0.00	0.00	0.00	0.71	0.71	0.71	0.00	0.00	0.71	0.71
	Bottom Side	0.09	0.22	0.22	0.07	0.07	0.09	0.31	0.16	0.18	0.31	0.16	0.40	0.25
LTE 14	Rear Face	0.90	0.12	0.12	0.26	0.28	0.00	1.02	1.18	0.90	0.12	0.28	1.02	1.16
	Left Side	0.15	0.00	0.00	0.21	0.23	0.00	0.15	0.38	0.15	0.00	0.23	0.15	0.36
	Right Side	0.10	0.05	0.05	0.11	0.12	0.00	0.15	0.22	0.10	0.05	0.12	0.15	0.21
	Top Side	0.79	0.00	0.00	0.00	0.00	0.00	0.79	0.79	0.79	0.00	0.00	0.79	0.79
	Bottom Side	0.10	0.22	0.22	0.07	0.07	0.09	0.32	0.17	0.19	0.31	0.16	0.41	0.26
LTE 25	Rear Face	0.69	0.12	0.12	0.26	0.28	0.00	0.81	0.97	0.69	0.12	0.28	0.81	0.95
	Left Side	0.20	0.00	0.00	0.21	0.23	0.00	0.20	0.43	0.20	0.00	0.23	0.20	0.41
	Right Side	0.00	0.05	0.05	0.11	0.12	0.00	0.05	0.12	0.00	0.05	0.12	0.05	0.11
	Top Side	0.37	0.00	0.00	0.00	0.00	0.00	0.37	0.37	0.37	0.00	0.00	0.37	0.37
	Bottom Side	0.00	0.22	0.22	0.07	0.07	0.09	0.22	0.07	0.09	0.31	0.16	0.31	0.16
LTE 26	Rear Face	0.78	0.12	0.12	0.26	0.28	0.00	0.90	1.06	0.78	0.12	0.28	0.90	1.04
	Left Side	0.10	0.00	0.00	0.21	0.23	0.00	0.10	0.33	0.10	0.00	0.23	0.10	0.31
	Right Side	0.00	0.05	0.05	0.11	0.12	0.00	0.05	0.12	0.00	0.05	0.12	0.05	0.11
	Top Side	0.40	0.00	0.00	0.00	0.00	0.00	0.40	0.40	0.40	0.00	0.00	0.40	0.40
	Bottom Side	0.00	0.22	0.22	0.07	0.07	0.09	0.22	0.07	0.09	0.31	0.16	0.31	0.16

# FCC SAR Test Report

Band	Position	A	1	B	2	C	3	A+B	A+C	A+3	B+3	C+3	A+1+3	A+2+3	
		Max WWAN	WLAN 2.4GHz Ant 0+1	Max WLAN 2.4GHz	WLAN 5GHz Ant 0+1	Max WLAN 5GHz	BT Ant 1	Summing result 1g SAR W/kg	Summing result 1g SAR W/kg	Summing result 1g SAR W/kg	Summing result 1g SAR W/kg	Summing result 1g SAR W/kg	Summing result 1g SAR W/kg	Summing result 1g SAR W/kg	Summing result 1g SAR W/kg
		1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg	1g SAR W/kg								
LTE 30	Rear Face	0.75	0.12	0.12	0.26	0.28	0.00	0.87	1.03	0.75	0.12	0.28	0.87	1.01	
	Left Side	0.17	0.00	0.00	0.21	0.23	0.00	0.17	0.40	0.17	0.00	0.23	0.17	0.38	
	Right Side	0.00	0.05	0.05	0.11	0.12	0.00	0.05	0.12	0.00	0.05	0.12	0.05	0.11	
	Top Side	0.63	0.00	0.00	0.00	0.00	0.00	0.63	0.63	0.63	0.00	0.00	0.63	0.63	
	Bottom Side	0.00	0.22	0.22	0.07	0.07	0.09	0.22	0.07	0.09	0.31	0.16	0.31	0.16	
LTE 41	Rear Face	0.49	0.12	0.12	0.26	0.28	0.00	0.61	0.77	0.49	0.12	0.28	0.61	0.75	
	Left Side	0.07	0.00	0.00	0.21	0.23	0.00	0.07	0.30	0.07	0.00	0.23	0.07	0.28	
	Right Side	0.00	0.05	0.05	0.11	0.12	0.00	0.05	0.12	0.00	0.05	0.12	0.05	0.11	
	Top Side	0.22	0.00	0.00	0.00	0.00	0.00	0.22	0.22	0.22	0.00	0.00	0.22	0.22	
	Bottom Side	0.00	0.22	0.22	0.07	0.07	0.09	0.22	0.07	0.09	0.31	0.16	0.31	0.16	
LTE 66	Rear Face	0.84	0.12	0.12	0.26	0.28	0.00	0.96	1.12	0.84	0.12	0.28	0.96	1.10	
	Left Side	0.22	0.00	0.00	0.21	0.23	0.00	0.22	0.45	0.22	0.00	0.23	0.22	0.43	
	Right Side	0.05	0.05	0.05	0.11	0.12	0.00	0.10	0.17	0.05	0.05	0.12	0.10	0.16	
	Top Side	0.41	0.00	0.00	0.00	0.00	0.00	0.41	0.41	0.41	0.00	0.00	0.41	0.41	
	Bottom Side	0.05	0.22	0.22	0.07	0.07	0.09	0.27	0.12	0.14	0.31	0.16	0.36	0.21	

Test Engineer : James Chu, and Willy Chang

## 5. Calibration of Test Equipment

Equipment	Manufacturer	Model	SN	Cal. Date	Cal. Interval
System Validation Dipole	SPEAG	D750V3	1013	Aug. 23, 2019	1 Year
System Validation Dipole	SPEAG	D835V2	4d121	Aug. 23, 2019	1 Year
System Validation Dipole	SPEAG	D1750V2	1055	Aug. 23, 2019	1 Year
System Validation Dipole	SPEAG	D1900V2	5d036	Jan. 25, 2019	1 Year
System Validation Dipole	SPEAG	D2300V2	1004	Jan. 28, 2019	1 Year
System Validation Dipole	SPEAG	D2450V2	737	Aug. 26, 2019	1 Year
System Validation Dipole	SPEAG	D2600V2	1020	Aug. 26, 2019	1 Year
System Validation Dipole	SPEAG	D5GHzV2	1019	Mar. 21, 2019	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	3650	May. 20, 2019	1 Year
Data Acquisition Electronics	SPEAG	DAE4	861	May. 08, 2019	1 Year
Radio Communication Analyzer	Anritsu	MT8821C	6201381727	Jun. 14, 2019	1 Year
Universal Radio Communication Tester	Anritsu	MT8821C	6201502978	Jun. 13, 2019	1 Year
Spectrum Analyzer	R&S	FSL6	102006	Mar. 26, 2019	1 Year
ENA Series Network Analyzer	Agilent	E5071C	MY46214281	Jun. 17, 2019	1 Year
MXG Analog Signal Generator	Agilent	N5181A	MY50143868	Jun. 27, 2019	1 Year
Power Meter	Anritsu	ML2495A	1218009	Jun. 28, 2019	1 Year
Power Sensor	Anritsu	MA2411B	1207252	Jun. 28, 2019	1 Year
Thermometer	YFE	YF-160A	130504591	Mar. 22, 2019	1 Year
Thermometer	YFE	YF-160A	120702365	Aug. 06, 2019	1 Year
Dielectric Assessment Kit	SPEAG	DAKS-3.5	1092	May. 07, 2019	1 Year

## 6. Measurement Uncertainty

According to KDB 865664 D01, SAR measurement uncertainty analysis is required in SAR reports only when the highest measured SAR in a frequency band is  $\geq 1.5$  W/kg for 1-g SAR, and  $\geq 3.75$  W/kg for 10-g SAR. The procedures described in IEEE Std 1528-2013 should be applied. The expanded SAR measurement uncertainty must be  $\leq 30\%$ , for a confidence interval of  $k = 2$ . When the highest measured SAR within a frequency band is  $< 1.5$  W/kg for 1-g and  $< 3.75$  W/kg for 10-g, the extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2013 is not required in SAR reports submitted for equipment approval. Hence, the measurement uncertainty analysis is not required in this SAR report because the test result met the condition.

### **7. Information of the Testing Laboratories**

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

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The road map of all our labs can be found in our web site also.

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## Appendix A. SAR Plots of System Verification

The plots for system verification with largest deviation for each SAR system combination are shown as follows.

## System Check\_H750\_191031

**DUT: Dipole 750 MHz; Type: D750V3; SN: 1013**

Communication System: CW; Frequency: 750 MHz; Duty Cycle: 1:1

Medium: H06T09N1\_1031 Medium parameters used:  $f = 750$  MHz;  $\sigma = 0.899$  S/m;  $\epsilon_r = 41.399$ ;  $\rho = 1000$  kg/m<sup>3</sup>

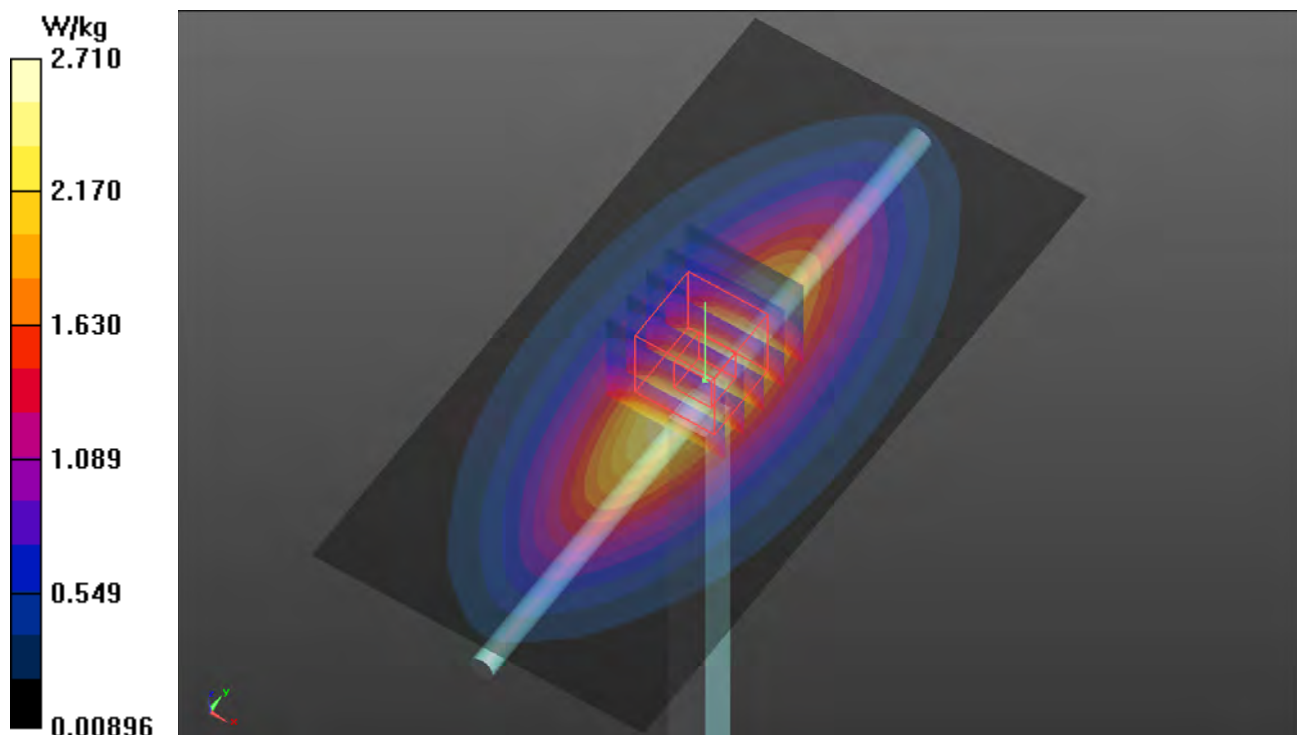
Ambient Temperature : 23.7 °C ; Liquid Temperature : 23.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(10.06, 10.06, 10.06); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom\_2105; Type: QD OVA 004 Ax; Serial: 2105
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

**Pin=250mW/Area Scan (61x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 2.71 W/kg

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 57.72 V/m; Power Drift = -0.10 dB  
Peak SAR (extrapolated) = 3.03 W/kg  
**SAR(1 g) = 2.02 W/kg; SAR(10 g) = 1.33 W/kg**  
Maximum value of SAR (measured) = 2.71 W/kg



## System Check\_H835\_191031

**DUT: Dipole 835 MHz; Type: D835V2; SN: 4d121**

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: H07T10N1\_1031 Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.928$  S/m;  $\epsilon_r = 41.992$ ;  $\rho = 1000$  kg/m<sup>3</sup>

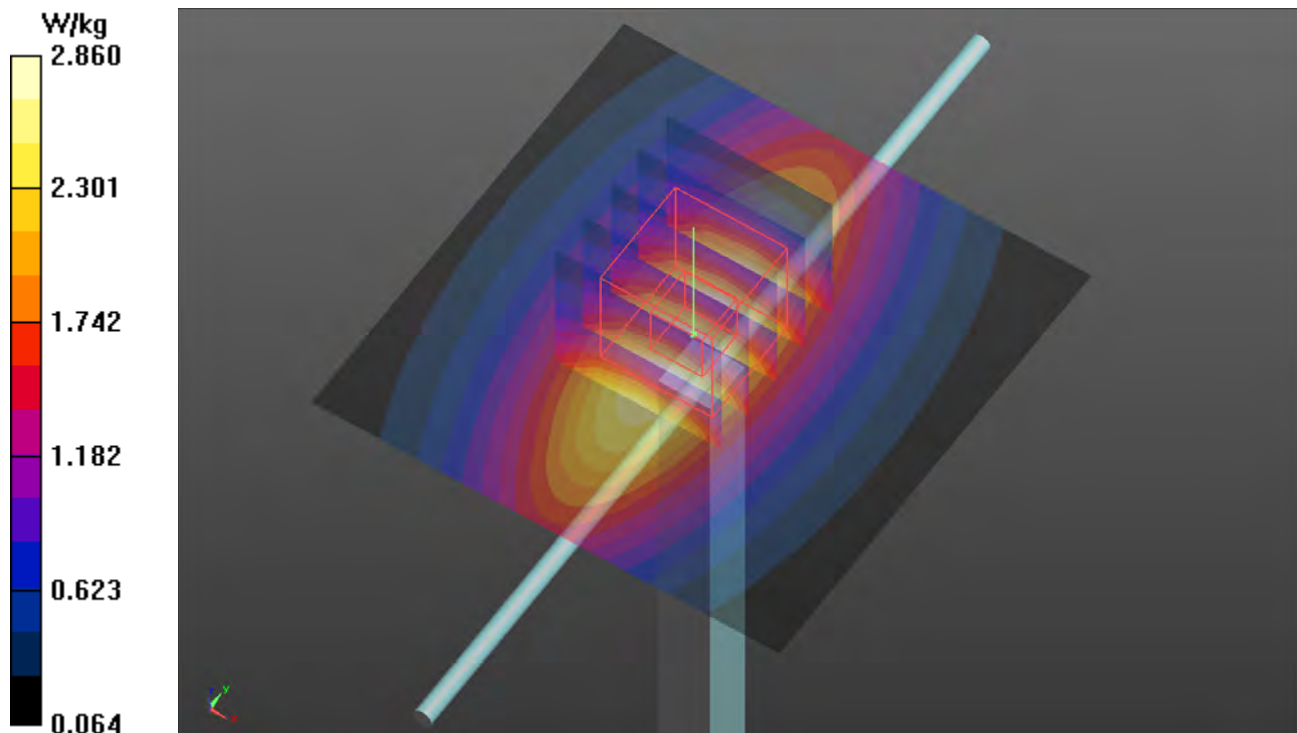
Ambient Temperature : 23.7 °C ; Liquid Temperature : 23.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.82, 9.82, 9.82); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom\_2105; Type: QD OVA 004 Ax; Serial: 2105
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

**Pin=250mW/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 2.86 W/kg

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 54.22 V/m; Power Drift = -0.04 dB  
Peak SAR (extrapolated) = 3.28 W/kg  
**SAR(1 g) = 2.27 W/kg; SAR(10 g) = 1.51 W/kg**  
Maximum value of SAR (measured) = 2.97 W/kg





## System Check\_H1750\_191030

**DUT: Dipole 1750 MHz; Type: D1750V2; SN: 1055**

Communication System: CW; Frequency: 1750 MHz; Duty Cycle: 1:1

Medium: H16T20N1\_1030 Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.322$  S/m;  $\epsilon_r = 39.328$ ;  $\rho = 1000$  kg/m<sup>3</sup>

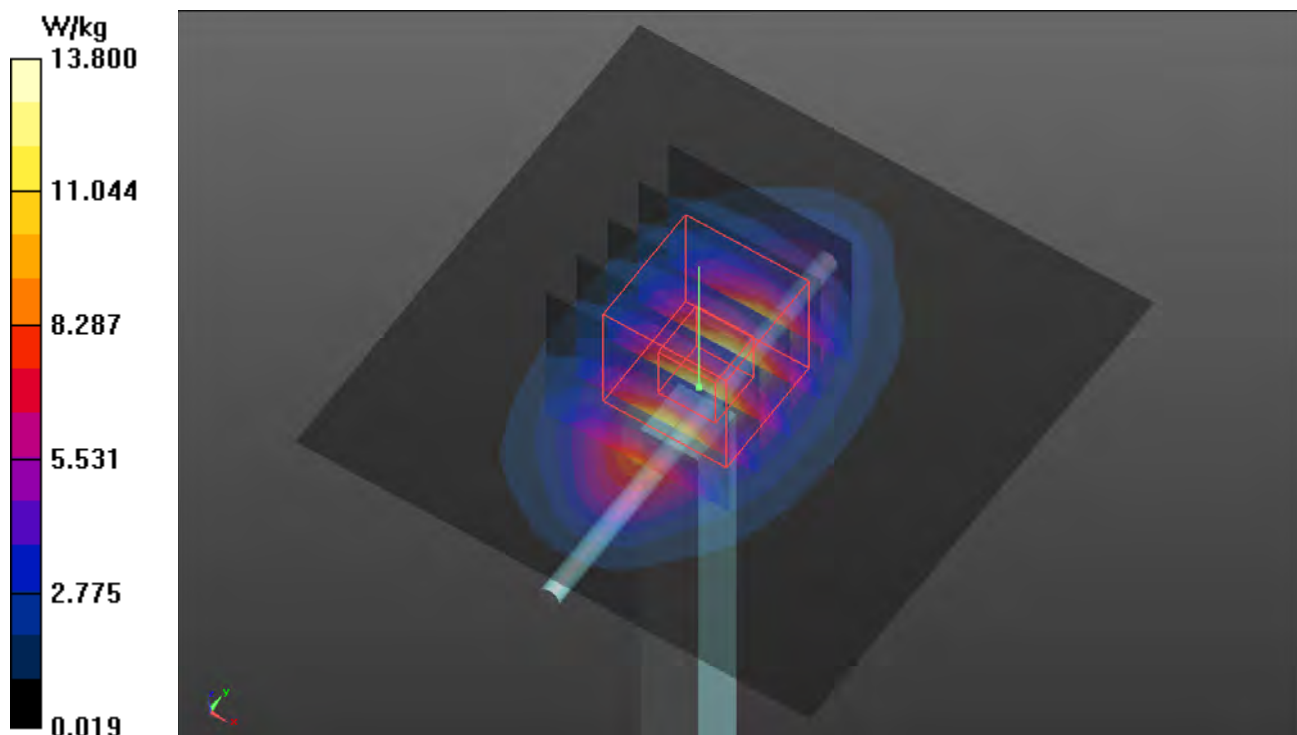
Ambient Temperature : 23.7 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.44, 8.44, 8.44); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom\_2105; Type: QD OVA 004 Ax; Serial: 2105
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

**Pin=250mW/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 13.8 W/kg

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 98.17 V/m; Power Drift = 0.03 dB  
Peak SAR (extrapolated) = 16.0 W/kg  
**SAR(1 g) = 8.94 W/kg; SAR(10 g) = 4.8 W/kg**  
Maximum value of SAR (measured) = 13.6 W/kg



## System Check\_H1900\_191027

**DUT: Dipole 1900 MHz; Type: D1900V2; SN: 5d036**

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: H16T20N1\_1027 Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.444$  S/m;  $\epsilon_r = 38.836$ ;  $\rho = 1000$  kg/m<sup>3</sup>

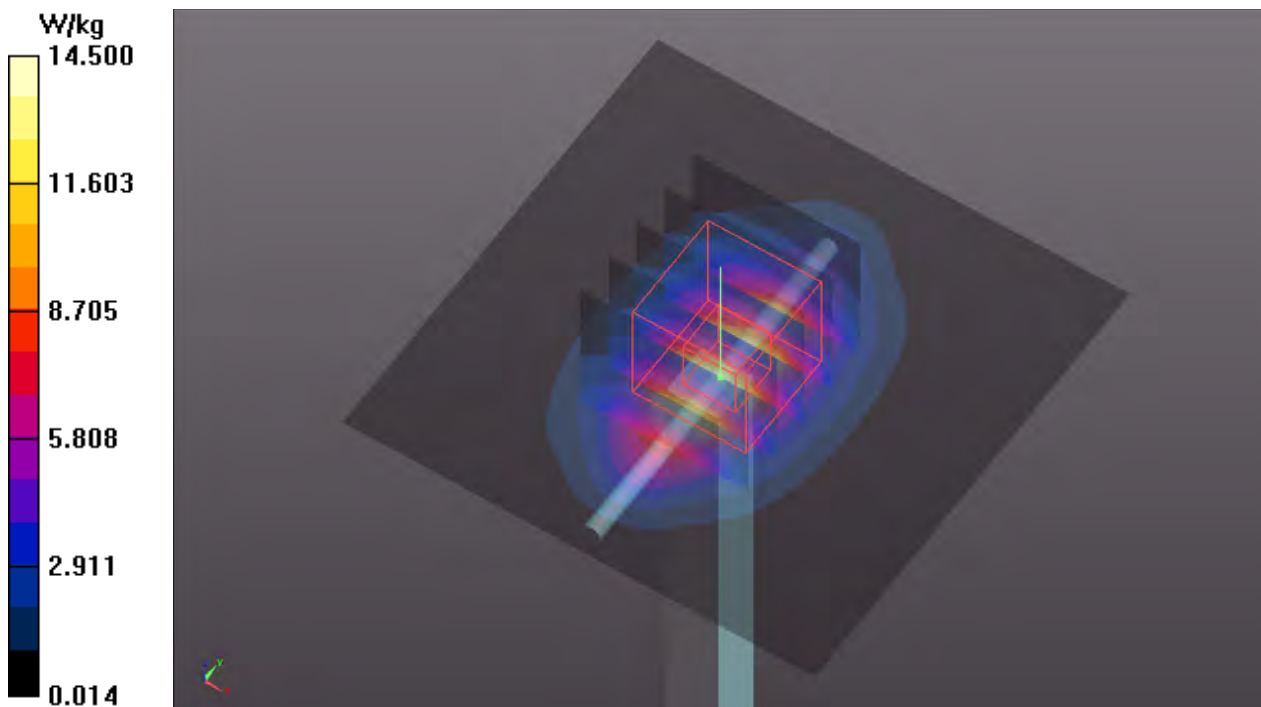
Ambient Temperature : 23.8 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.25, 8.25, 8.25); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom\_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Pin=250mW/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 14.5 W/kg

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 100.9 V/m; Power Drift = -0.04 dB  
Peak SAR (extrapolated) = 18.2 W/kg  
**SAR(1 g) = 9.91 W/kg; SAR(10 g) = 5.16 W/kg**  
Maximum value of SAR (measured) = 14.2 W/kg



## System Check\_H2300\_191028

**DUT: Dipole 2300 MHz; Type: D2300V2; SN:1004**

Communication System: CW; Frequency: 2300 MHz; Duty Cycle: 1:1

Medium: H19T27N3\_1028 Medium parameters used:  $f = 2300$  MHz;  $\sigma = 1.708$  S/m;  $\epsilon_r = 38.531$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.6 °C ; Liquid Temperature : 23.2 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8, 8, 8); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom\_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Pin=250mW/Area Scan (81x81x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 20.6 W/kg

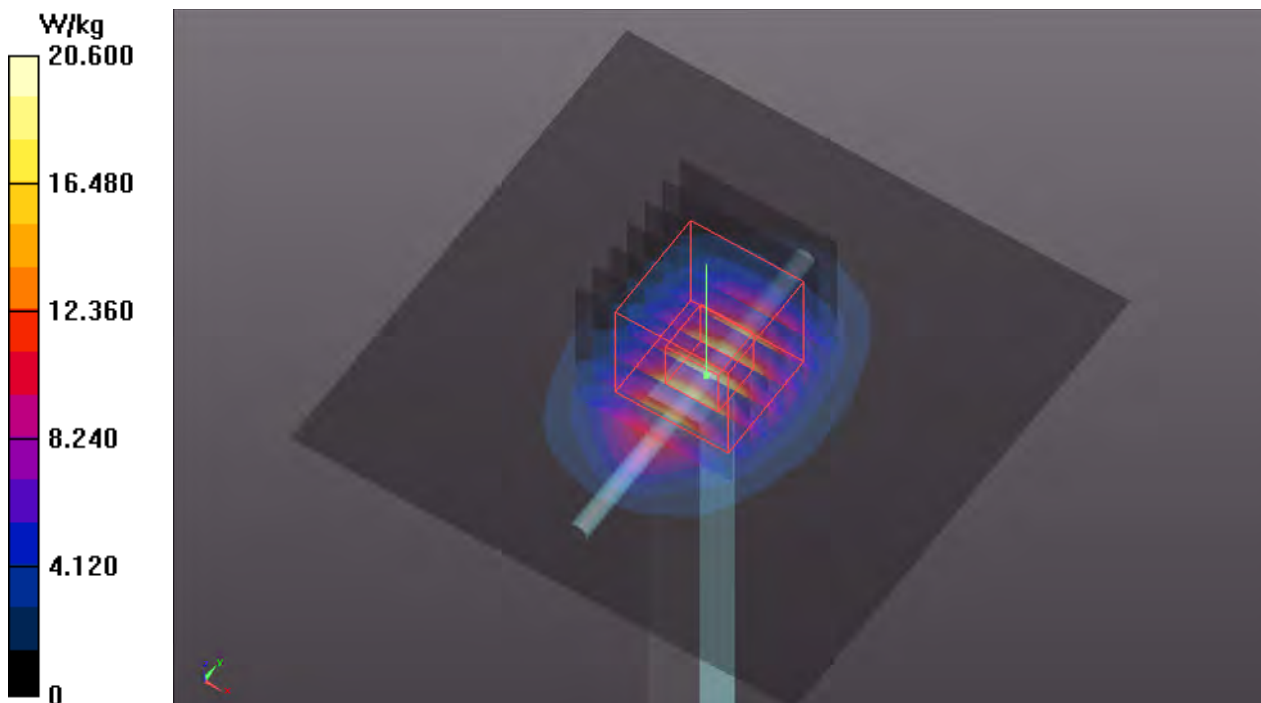
**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 112.8 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 25.8 W/kg

**SAR(1 g) = 12.2 W/kg; SAR(10 g) = 5.77 W/kg**

Maximum value of SAR (measured) = 20.7 W/kg



## System Check\_H2450\_191028

**DUT: Dipole 2450 MHz; Type: D2450V2; SN: 737**

Communication System: CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: H19T27N3\_1028 Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.861$  S/m;  $\epsilon_r = 38.027$ ;  $\rho = 1000$  kg/m<sup>3</sup>

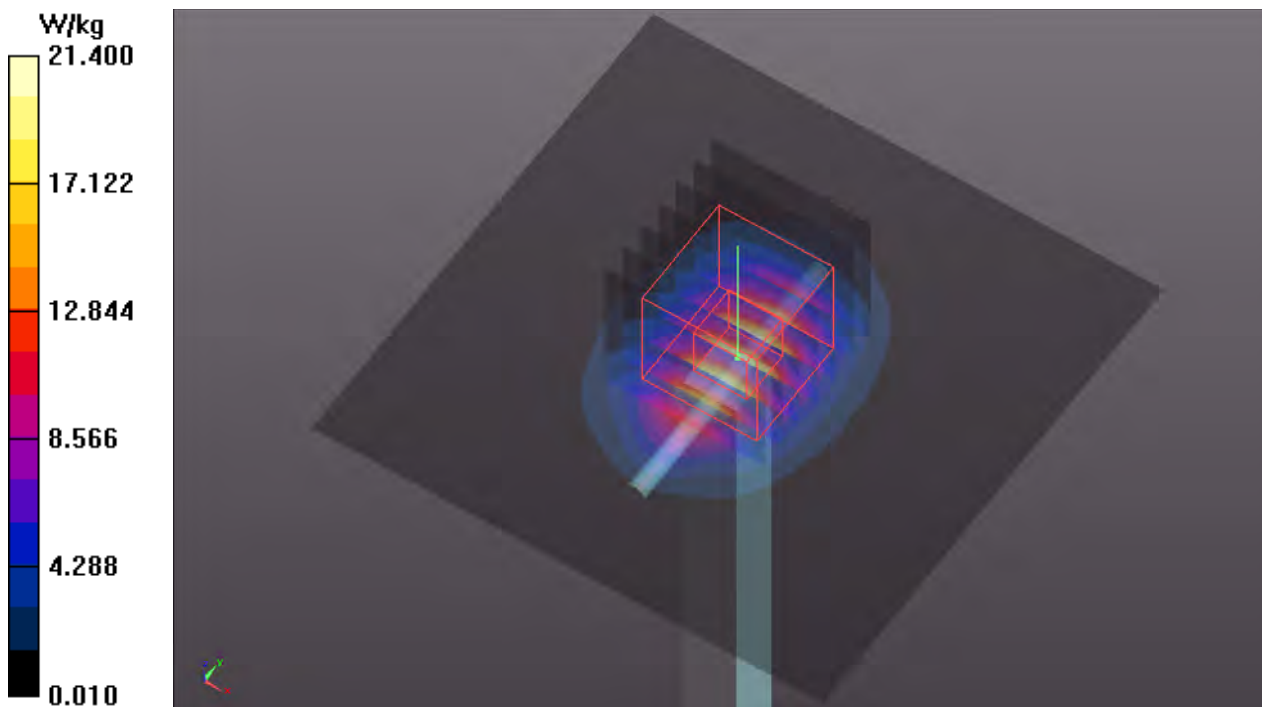
Ambient Temperature : 23.6 °C ; Liquid Temperature : 23.2 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.63, 7.63, 7.63); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom\_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

**Pin=250mW/Area Scan (81x81x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 21.4 W/kg

**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 104.5 V/m; Power Drift = 0.04 dB  
Peak SAR (extrapolated) = 26.8 W/kg  
**SAR(1 g) = 12.7 W/kg; SAR(10 g) = 5.78 W/kg**  
Maximum value of SAR (measured) = 21.6 W/kg



## System Check\_H2600\_191031

**DUT: Dipole 2600 MHz; Type: D2600V2; SN: 1020**

Communication System: CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium: H19T27N1\_1031 Medium parameters used:  $f = 2600$  MHz;  $\sigma = 2.048$  S/m;  $\epsilon_r = 38.281$ ;  $\rho = 1000$  kg/m<sup>3</sup>

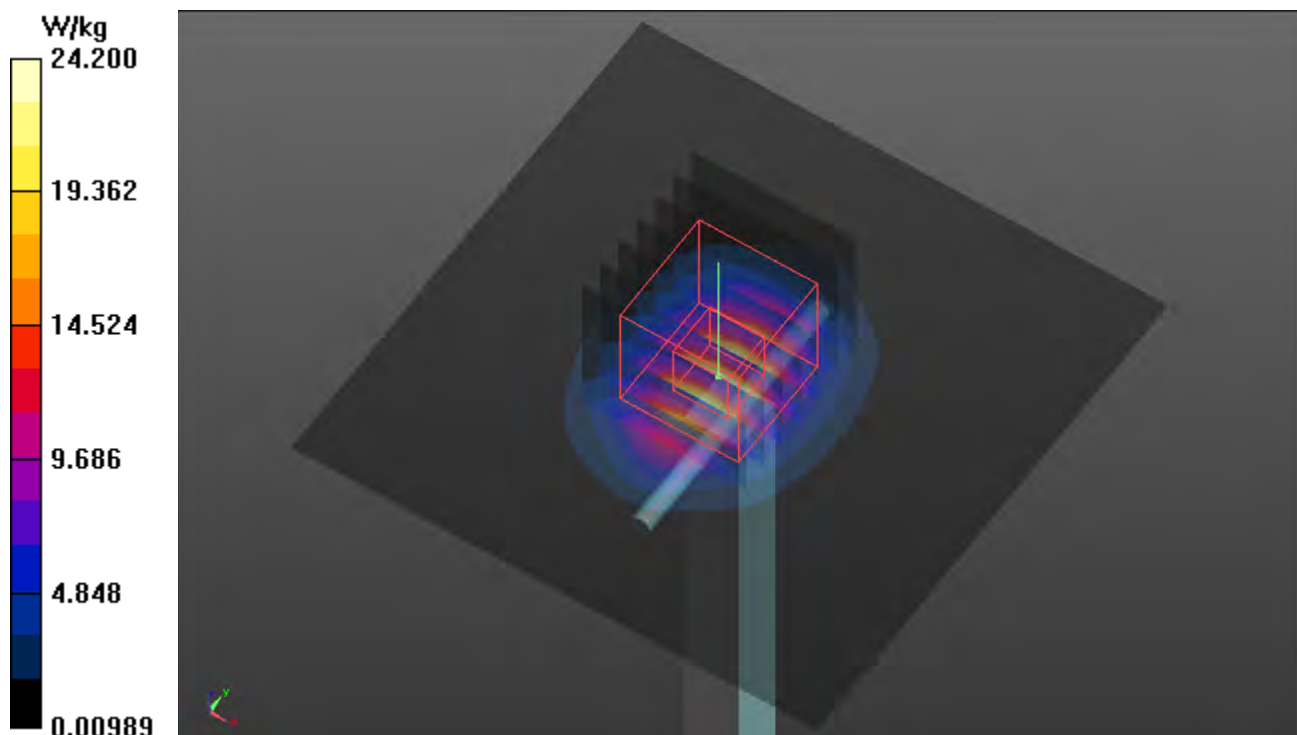
Ambient Temperature : 23.7 °C ; Liquid Temperature : 23.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.5, 7.5, 7.5); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom\_2105; Type: QD OVA 004 Ax; Serial: 2105
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

**Pin=250mW/Area Scan (81x81x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 24.2 W/kg

**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 105.3 V/m; Power Drift = 0.00 dB  
Peak SAR (extrapolated) = 30.2 W/kg  
**SAR(1 g) = 13.9 W/kg; SAR(10 g) = 6.14 W/kg**  
Maximum value of SAR (measured) = 24.2 W/kg



## System Check\_H5250\_191101

**DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019**

Communication System: CW; Frequency: 5250 MHz; Duty Cycle: 1:1

Medium: H34T60N1\_1101 Medium parameters used:  $f = 5250$  MHz;  $\sigma = 4.836$  S/m;  $\epsilon_r = 35.108$ ;  $\rho = 1000$  kg/m<sup>3</sup>

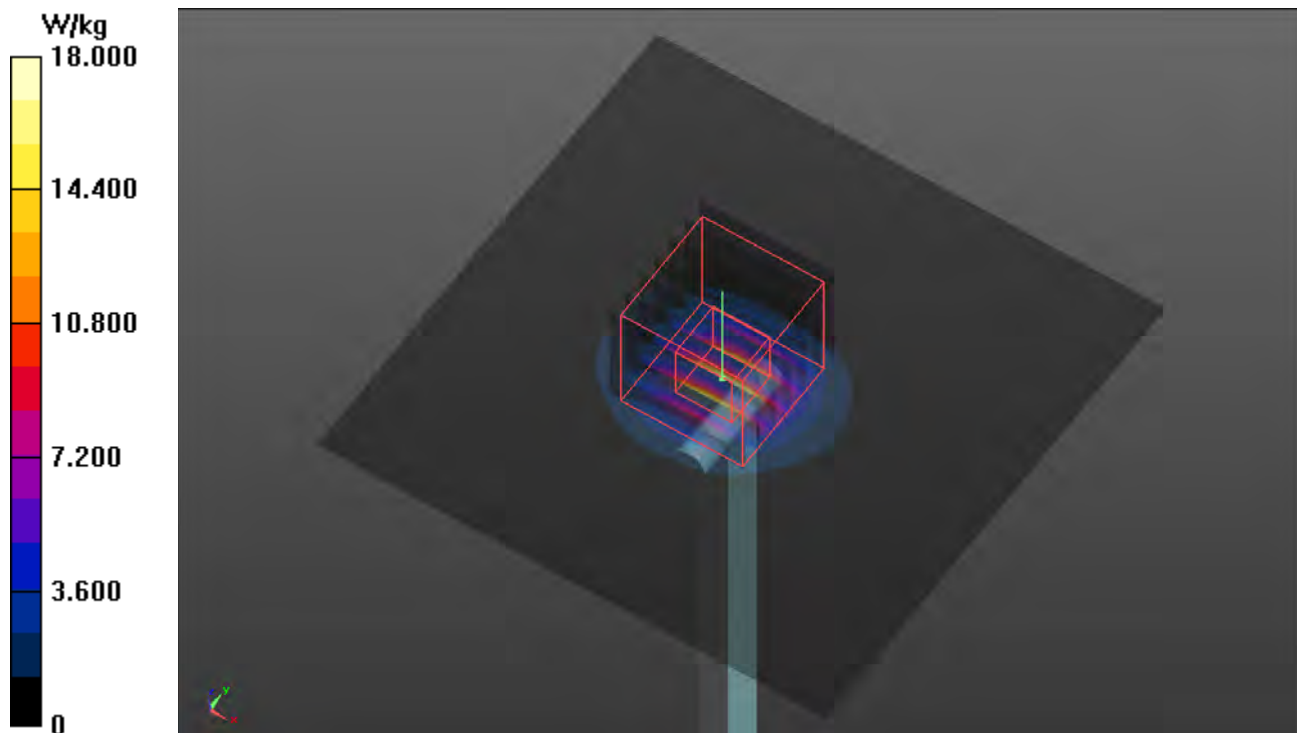
Ambient Temperature : 23.8 °C ; Liquid Temperature : 23.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(5.4, 5.4, 5.4); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom\_2105; Type: QD OVA 004 Ax; Serial: 2105
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

**Pin=100mW/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 18.0 W/kg

**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm  
Reference Value = 66.48 V/m; Power Drift = 0.11 dB  
Peak SAR (extrapolated) = 31.8 W/kg  
**SAR(1 g) = 7.86 W/kg; SAR(10 g) = 2.27 W/kg**  
Maximum value of SAR (measured) = 19.8 W/kg



## System Check\_H5600\_191101

**DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019**

Communication System: CW; Frequency: 5600 MHz; Duty Cycle: 1:1

Medium: H34T60N1\_1101 Medium parameters used:  $f = 5600$  MHz;  $\sigma = 5.182$  S/m;  $\epsilon_r = 34.637$ ;  $\rho = 1000$  kg/m<sup>3</sup>

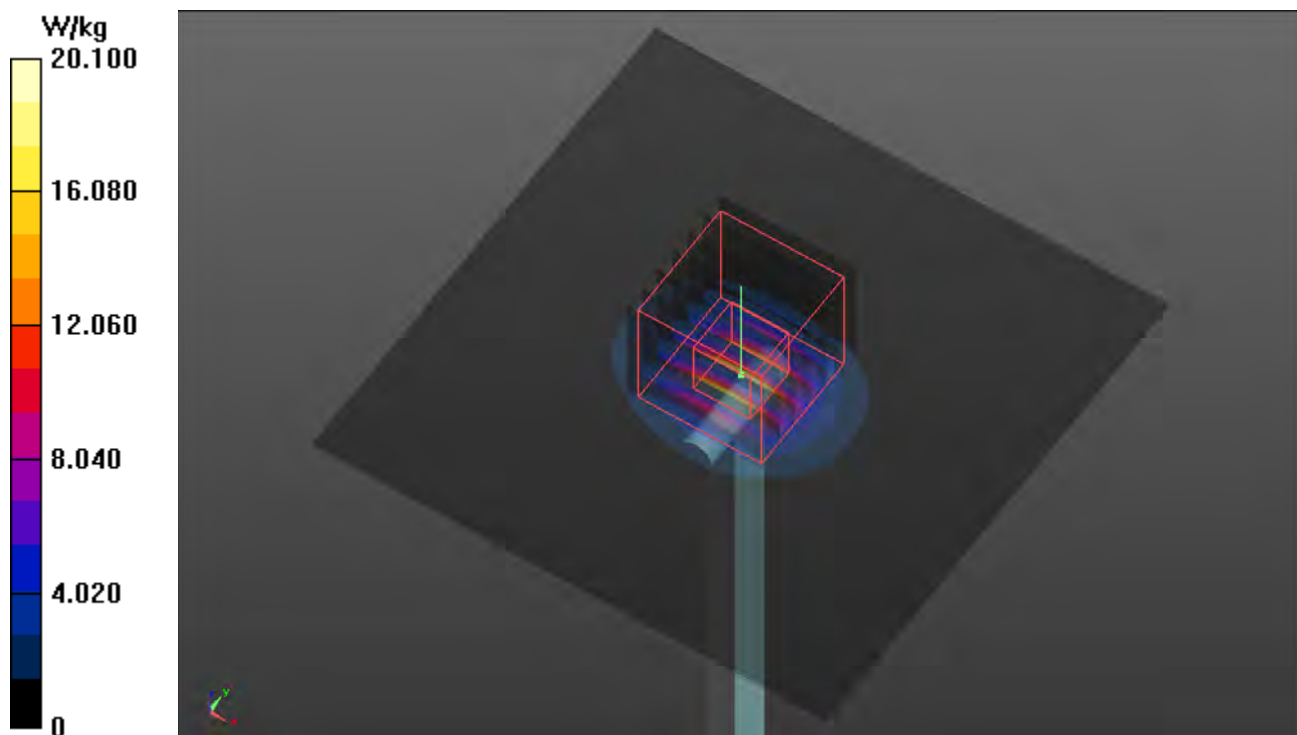
Ambient Temperature : 23.8 °C ; Liquid Temperature : 23.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(4.9, 4.9, 4.9); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom\_2105; Type: QD OVA 004 Ax; Serial: 2105
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

**Pin=100mW/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 20.1 W/kg

**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm  
Reference Value = 71.24 V/m; Power Drift = -0.15 dB  
Peak SAR (extrapolated) = 35.1 W/kg  
**SAR(1 g) = 8.26 W/kg; SAR(10 g) = 2.37 W/kg**  
Maximum value of SAR (measured) = 21.3 W/kg



## System Check\_H5750\_191030

**DUT: Dipole 5 GHz; Type: D5GHzV2; SN: 1019**

Communication System: CW; Frequency: 5750 MHz; Duty Cycle: 1:1

Medium: H34T60N1\_1030 Medium parameters used:  $f = 5750$  MHz;  $\sigma = 5.307$  S/m;  $\epsilon_r = 34.368$ ;  $\rho = 1000$  kg/m<sup>3</sup>

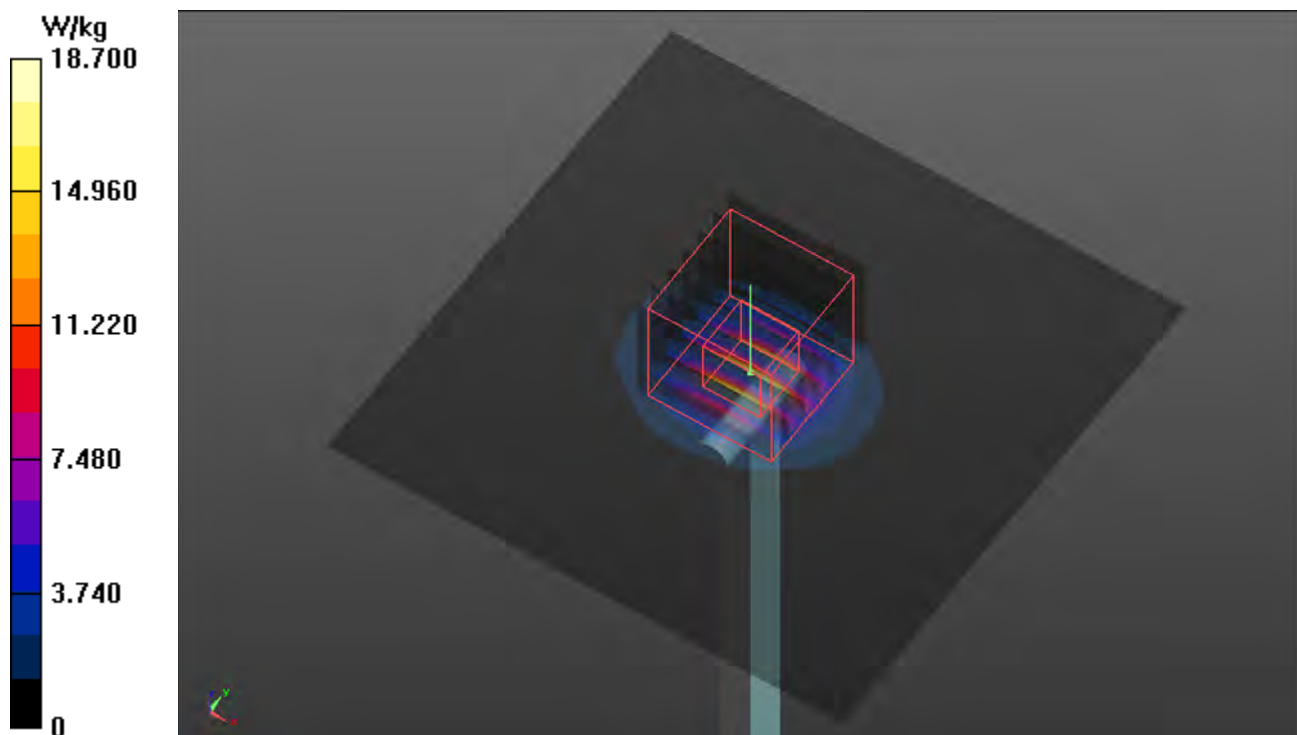
Ambient Temperature : 23.7 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(5.17, 5.17, 5.17); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom\_2105; Type: QD OVA 004 Ax; Serial: 2105
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

**Pin=100mW/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 18.7 W/kg

**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm  
Reference Value = 68.01 V/m; Power Drift = 0.05 dB  
Peak SAR (extrapolated) = 34.6 W/kg  
**SAR(1 g) = 7.63 W/kg; SAR(10 g) = 2.18 W/kg**  
Maximum value of SAR (measured) = 20.2 W/kg





## Appendix B. SAR Plots of SAR Measurement

The SAR plots for highest measured SAR in each exposure configuration, wireless mode and frequency band combination, and measured SAR > 1.5 W/kg are shown as follows.

## P01 WCDMA II\_RMC12.2K\_Rear Face\_0mm\_Ch9262\_P-Sensor\_w\_o

### DUT: 191009C01

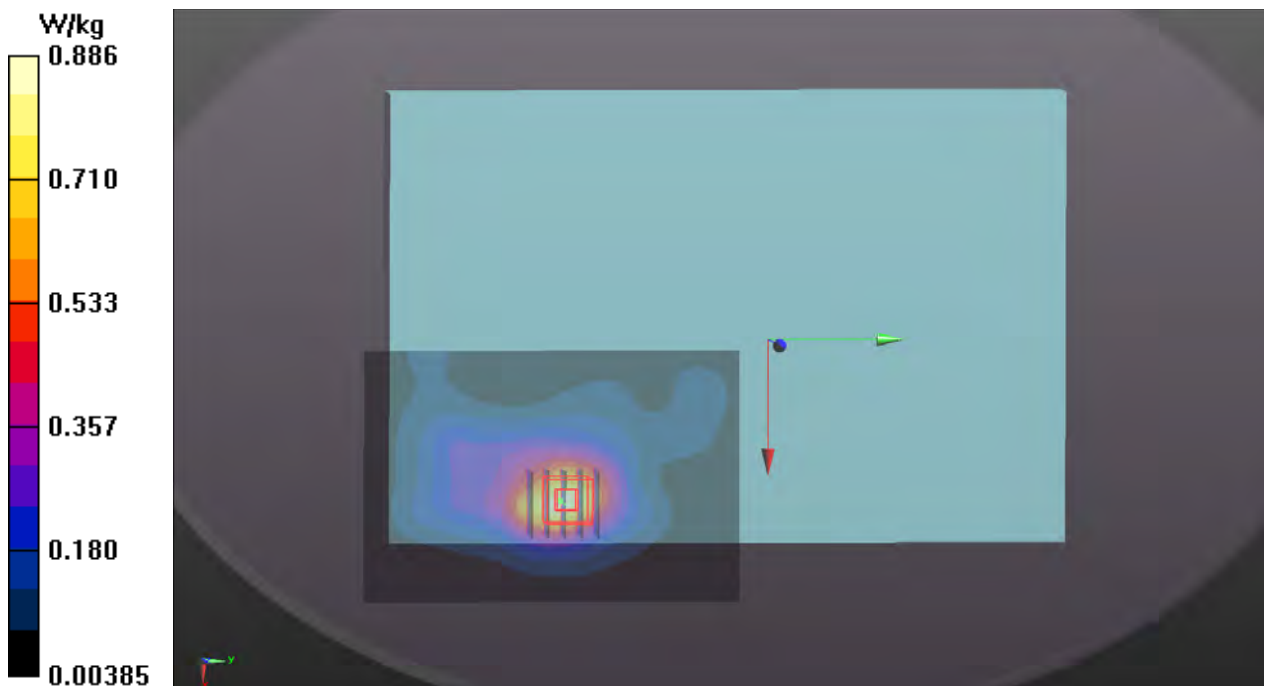
Communication System: WCDMA; Frequency: 1852.4 MHz; Duty Cycle: 1:1  
Medium: H16T20N1\_1026 Medium parameters used:  $f = 1852.4$  MHz;  $\sigma = 1.416$  S/m;  $\epsilon_r = 39.18$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.8 °C ; Liquid Temperature : 23.3 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.25, 8.25, 8.25); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom\_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

- **Area Scan (81x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 0.886 W/kg

- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 22.59 V/m; Power Drift = -0.02 dB  
Peak SAR (extrapolated) = 1.10 W/kg  
**SAR(1 g) = 0.628 W/kg; SAR(10 g) = 0.362 W/kg**  
Maximum value of SAR (measured) = 0.915 W/kg



## P02 WCDMA IV\_RMC12.2K\_Rear Face\_0mm\_Ch1312\_P-Sensor\_w\_o

**DUT: 191009C01**

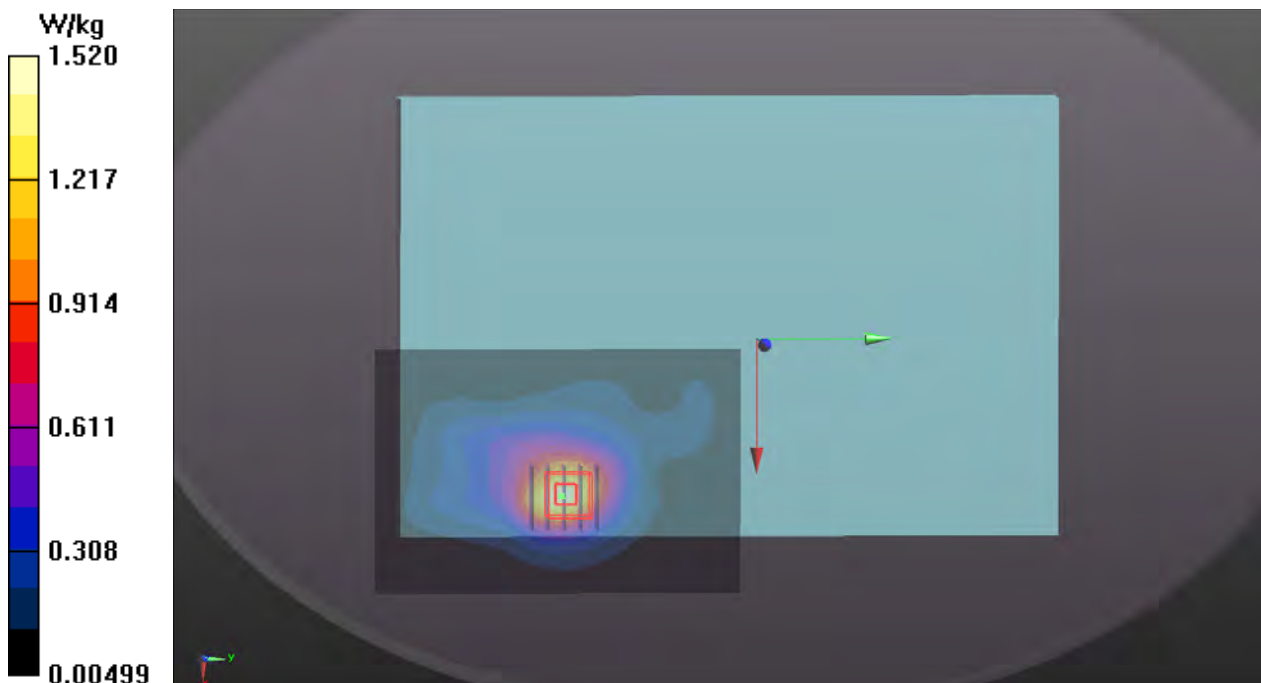
Communication System: WCDMA; Frequency: 1712.4 MHz; Duty Cycle: 1:1  
Medium: H16T20N1\_1026 Medium parameters used:  $f = 1712.4$  MHz;  $\sigma = 1.299$  S/m;  $\epsilon_r = 39.703$ ;  
 $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.8 °C ; Liquid Temperature : 23.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(8.44, 8.44, 8.44); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom\_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

- **Area Scan (81x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 1.52 W/kg

- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 29.75 V/m; Power Drift = -0.14 dB  
Peak SAR (extrapolated) = 1.64 W/kg  
**SAR(1 g) = 0.962 W/kg; SAR(10 g) = 0.564 W/kg**  
Maximum value of SAR (measured) = 1.40 W/kg



### P03 WCDMA V\_RMC12.2K\_Rear Face\_0mm\_Ch4132\_P-Sensor\_w

**DUT: 191009C01**

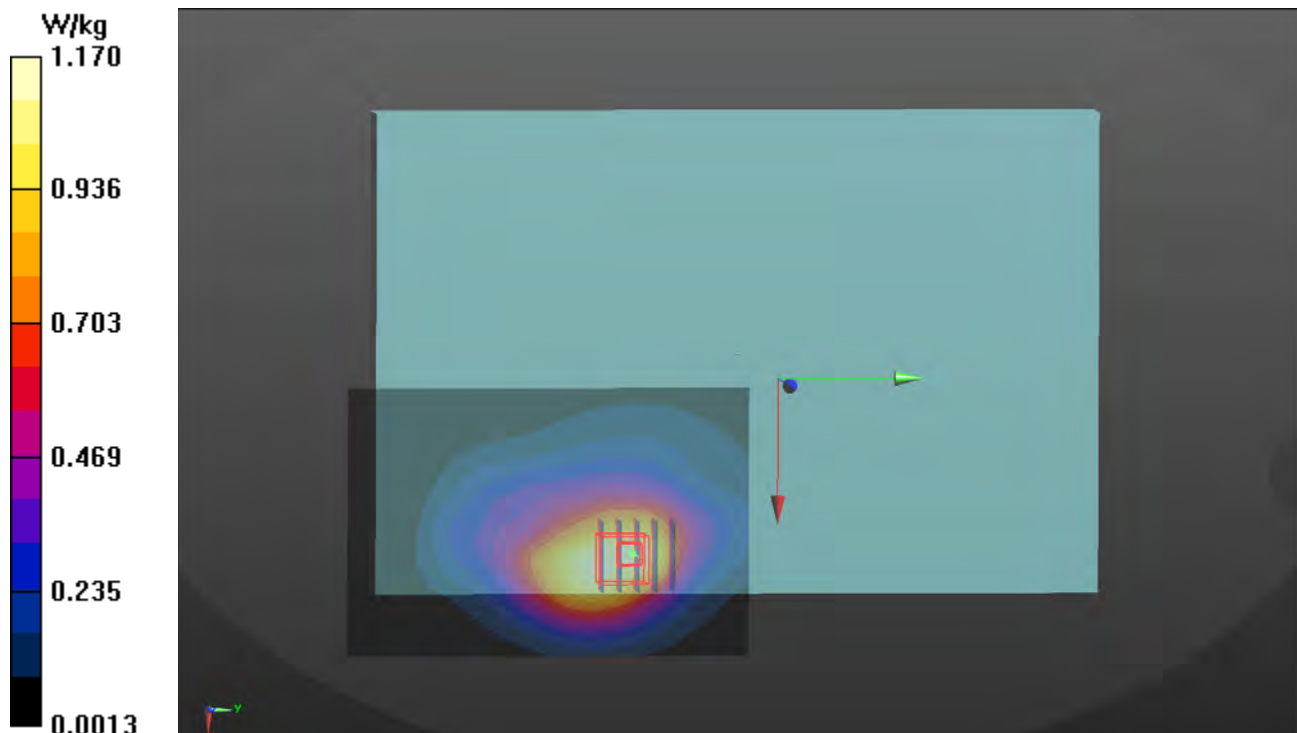
Communication System: WCDMA; Frequency: 826.4 MHz; Duty Cycle: 1:1  
Medium: H07T10N1\_1031 Medium parameters used:  $f = 826.4$  MHz;  $\sigma = 0.92$  S/m;  $\epsilon_r = 42.088$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.7 °C ; Liquid Temperature : 23.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.82, 9.82, 9.82); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom\_2105; Type: QD OVA 004 Ax; Serial: 2105
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

- **Area Scan (81x121x1)**: Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 1.17 W/kg

- **Zoom Scan (5x5x7)/Cube 0**: Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 36.84 V/m; Power Drift = -0.02 dB  
Peak SAR (extrapolated) = 1.32 W/kg  
**SAR(1 g) = 0.880 W/kg; SAR(10 g) = 0.600 W/kg**  
Maximum value of SAR (measured) = 1.16 W/kg



## P04 LTE 5\_QPSK10M\_Rear Face\_0mm\_Ch20600\_1RB\_OS0\_P-Sensor\_w

**DUT: 191009C01**

Communication System: LTE; Frequency: 844 MHz; Duty Cycle: 1:1

Medium: H07T10N1\_1031 Medium parameters used:  $f = 844$  MHz;  $\sigma = 0.936$  S/m;  $\epsilon_r = 41.874$ ;  $\rho = 1000$  kg/m<sup>3</sup>

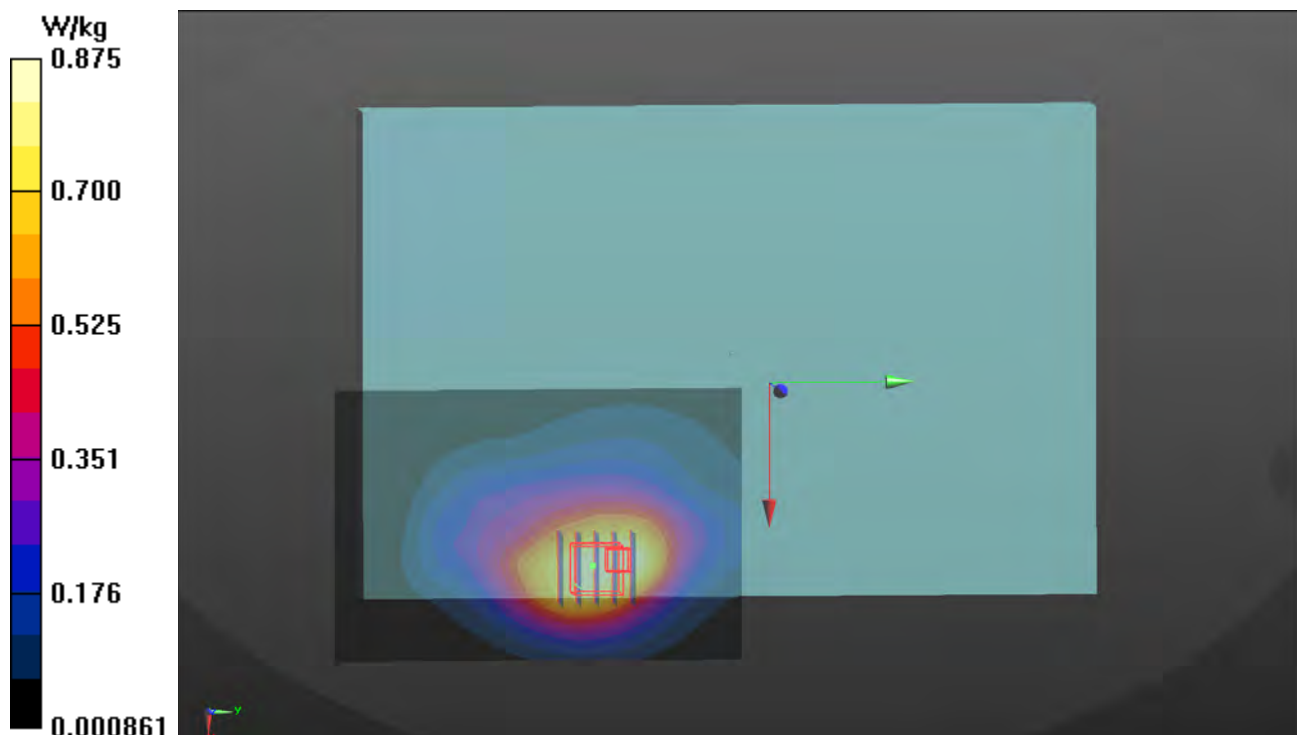
Ambient Temperature : 23.7 °C ; Liquid Temperature : 23.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.82, 9.82, 9.82); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom\_2105; Type: QD OVA 004 Ax; Serial: 2105
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

- **Area Scan (81x121x1)**: Interpolated grid:  $dx=1.500$  mm,  $dy=1.500$  mm  
Maximum value of SAR (interpolated) = 0.875 W/kg

- **Zoom Scan (5x5x7)/Cube 0**: Measurement grid:  $dx=8$ mm,  $dy=8$ mm,  $dz=5$ mm  
Reference Value = 31.65 V/m; Power Drift = 0.01 dB  
Peak SAR (extrapolated) = 1.00 W/kg  
**SAR(1 g) = 0.665 W/kg; SAR(10 g) = 0.457 W/kg**  
Maximum value of SAR (measured) = 0.869 W/kg



## P05 LTE 7\_QPSK20M\_Rear Face\_2mm\_Ch21350\_1RB\_OS0\_P-Sensor\_w\_o

**DUT: 191009C01**

Communication System: LTE; Frequency: 2560 MHz; Duty Cycle: 1:1

Medium: H19T27N1\_1031 Medium parameters used:  $f = 2560$  MHz;  $\sigma = 2.004$  S/m;  $\epsilon_r = 38.432$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.7 °C ; Liquid Temperature : 23.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(7.5, 7.5, 7.5); Calibrated: 2019/05/20

- Sensor-Surface: 1.4mm (Mechanical Surface Detection)

- Electronics: DAE4 Sn861; Calibrated: 2019/05/08

- Phantom: ELI Phantom\_2105; Type: QD OVA 004 Ax; Serial: 2105

- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

- **Area Scan (101x151x1)**: Interpolated grid: dx=1.200 mm, dy=1.200 mm

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

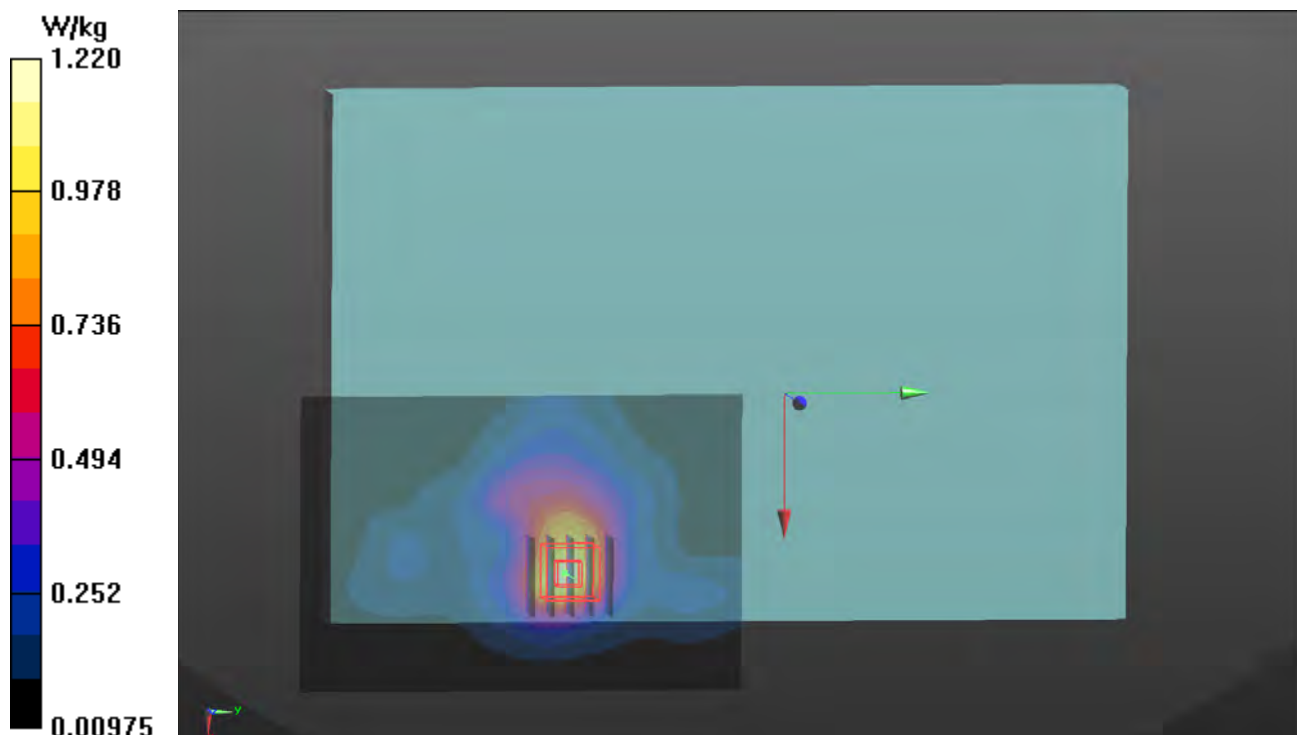
- **Zoom Scan (5x5x7)/Cube 0**: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 22.40 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 1.59 W/kg

**SAR(1 g) = 0.844 W/kg; SAR(10 g) = 0.447 W/kg**

Maximum value of SAR (measured) = 1.30 W/kg



### P06 LTE 12\_QPSK10M\_Rear Face\_0mm\_Ch23130\_1RB\_OS0\_P-Sensor\_w\_o

**DUT: 191009C01**

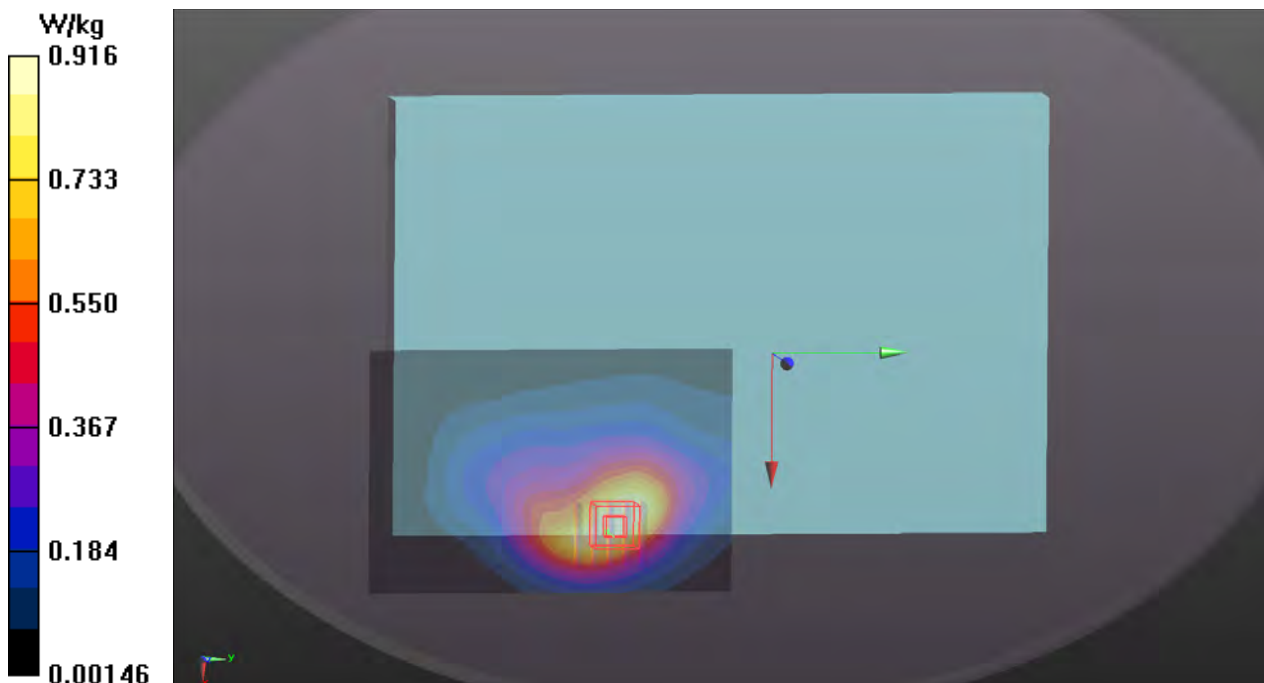
Communication System: LTE; Frequency: 711 MHz; Duty Cycle: 1:1  
Medium: H06T09N1\_1027 Medium parameters used:  $f = 711$  MHz;  $\sigma = 0.858$  S/m;  $\epsilon_r = 43.417$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.8 °C ; Liquid Temperature : 23.3 °C

**DASY5 Configuration:**

- Probe: EX3DV4 - SN3650; ConvF(10.06, 10.06, 10.06); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom\_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

- **Area Scan (81x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 0.916 W/kg

- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 33.39 V/m; Power Drift = -0.01 dB  
Peak SAR (extrapolated) = 1.17 W/kg  
**SAR(1 g) = 0.718 W/kg; SAR(10 g) = 0.460 W/kg**  
Maximum value of SAR (measured) = 1.00 W/kg



## P07 LTE 13\_QPSK10M\_Rear Face\_0mm\_Ch23230\_1RB\_OS0\_P-Sensor\_w

**DUT: 191009C01**

Communication System: LTE; Frequency: 782 MHz; Duty Cycle: 1:1

Medium: H06T09N1\_1031 Medium parameters used:  $f = 782$  MHz;  $\sigma = 0.928$  S/m;  $\epsilon_r = 40.973$ ;  $\rho = 1000$  kg/m<sup>3</sup>

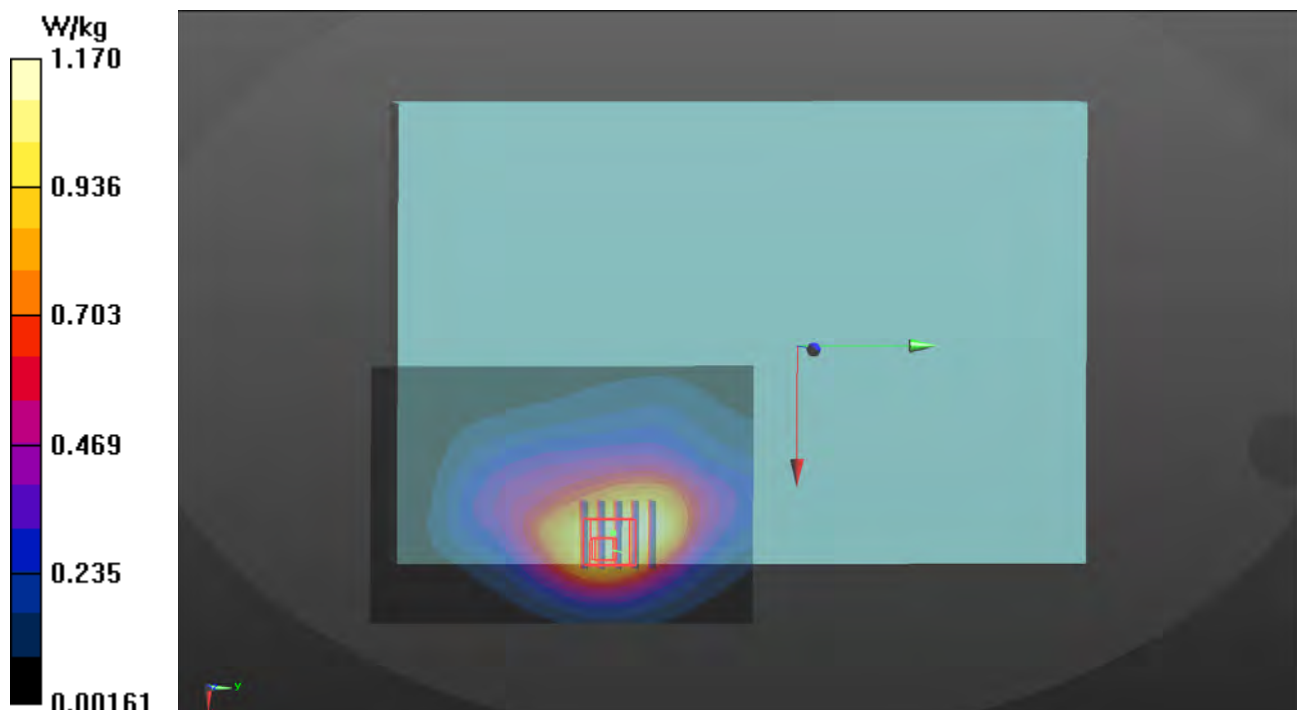
Ambient Temperature : 23.7 °C ; Liquid Temperature : 23.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(10.06, 10.06, 10.06); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom\_2105; Type: QD OVA 004 Ax; Serial: 2105
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

- **Area Scan (81x121x1)**: Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 1.17 W/kg

- **Zoom Scan (5x5x7)/Cube 0**: Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 37.07 V/m; Power Drift = 0.02 dB  
Peak SAR (extrapolated) = 1.38 W/kg  
**SAR(1 g) = 0.898 W/kg; SAR(10 g) = 0.606 W/kg**  
Maximum value of SAR (measured) = 1.21 W/kg





## P08 LTE 14\_QPSK10M\_Rear Face\_0mm\_Ch23330\_1RB\_OS0\_P-Sensor\_w

**DUT: 191009C01**

Communication System: LTE; Frequency: 793 MHz; Duty Cycle: 1:1

Medium: H06T09N1\_1031 Medium parameters used:  $f = 793$  MHz;  $\sigma = 0.938$  S/m;  $\epsilon_r = 40.826$ ;  $\rho = 1000$  kg/m<sup>3</sup>

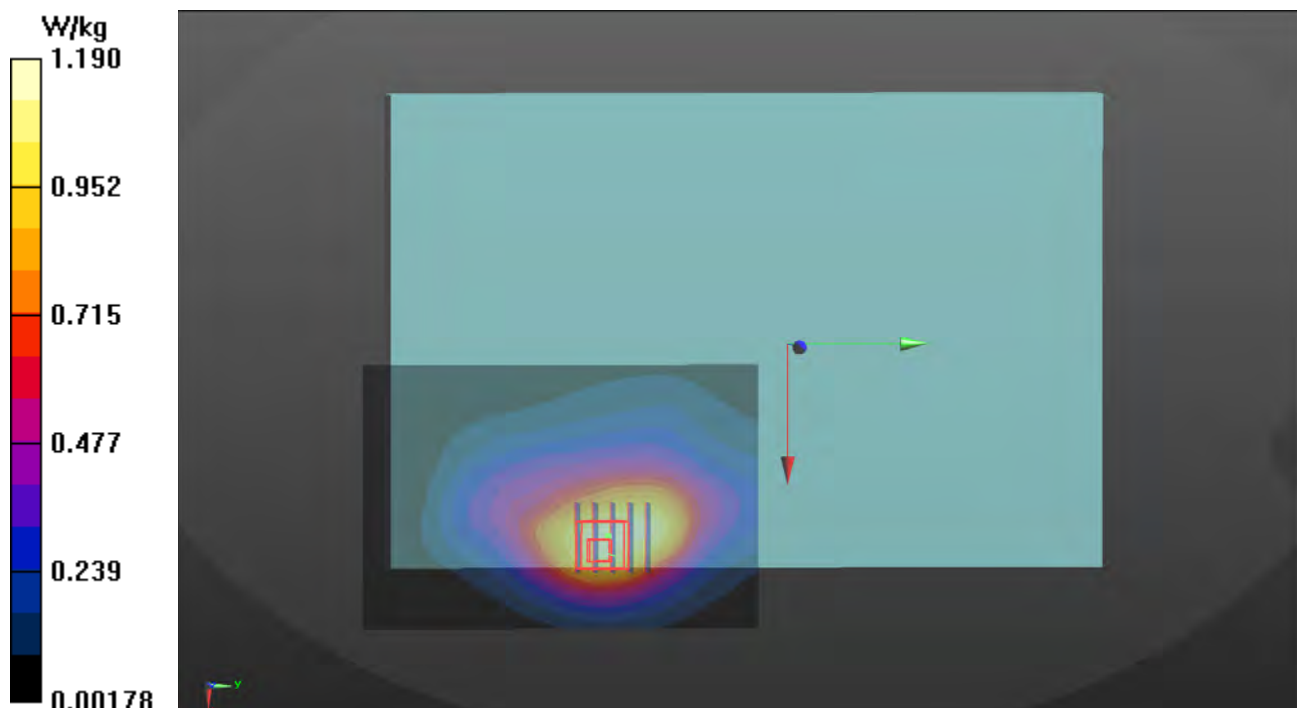
Ambient Temperature : 23.7 °C ; Liquid Temperature : 23.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(10.06, 10.06, 10.06); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom\_2105; Type: QD OVA 004 Ax; Serial: 2105
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

- **Area Scan (81x121x1)**: Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 1.19 W/kg

- **Zoom Scan (5x5x7)/Cube 0**: Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 36.70 V/m; Power Drift = -0.04 dB  
Peak SAR (extrapolated) = 1.36 W/kg  
**SAR(1 g) = 0.894 W/kg; SAR(10 g) = 0.607 W/kg**  
Maximum value of SAR (measured) = 1.20 W/kg



### P09 LTE 25\_QPSK20M\_Rear Face\_0mm\_Ch26140\_1RB\_OS0\_P-Sensor\_w\_o

**DUT: 191009C01**

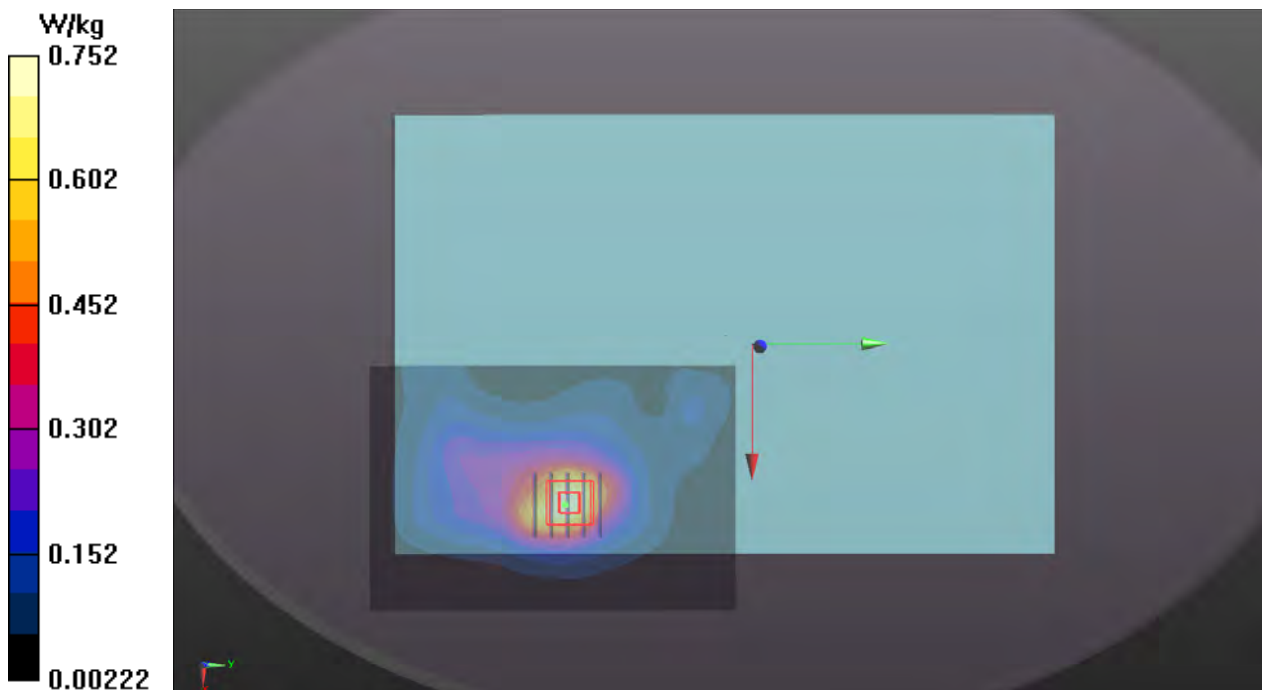
Communication System: LTE; Frequency: 1860 MHz; Duty Cycle: 1:1  
Medium: H16T20N1\_1027 Medium parameters used:  $f = 1860$  MHz;  $\sigma = 1.408$  S/m;  $\epsilon_r = 38.996$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.8 °C ; Liquid Temperature : 23.3 °C

**DASY5 Configuration:**

- Probe: EX3DV4 - SN3650; ConvF(8.25, 8.25, 8.25); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom\_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

- **Area Scan (81x141x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 0.752 W/kg

- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 22.61 V/m; Power Drift = 0.03 dB  
Peak SAR (extrapolated) = 0.925 W/kg  
**SAR(1 g) = 0.536 W/kg; SAR(10 g) = 0.312 W/kg**  
Maximum value of SAR (measured) = 0.779 W/kg



**P10 LTE 26\_QPSK15M\_Rear Face\_0mm\_Ch26765\_1RB\_OS0\_P-Sensor\_w**

**DUT: 191009C01**

Communication System: LTE; Frequency: 821.5 MHz; Duty Cycle: 1:1

Medium: H07T10N1\_1031 Medium parameters used:  $f = 821.5$  MHz;  $\sigma = 0.916$  S/m;  $\epsilon_r = 42.145$ ;  $\rho = 1000$  kg/m<sup>3</sup>

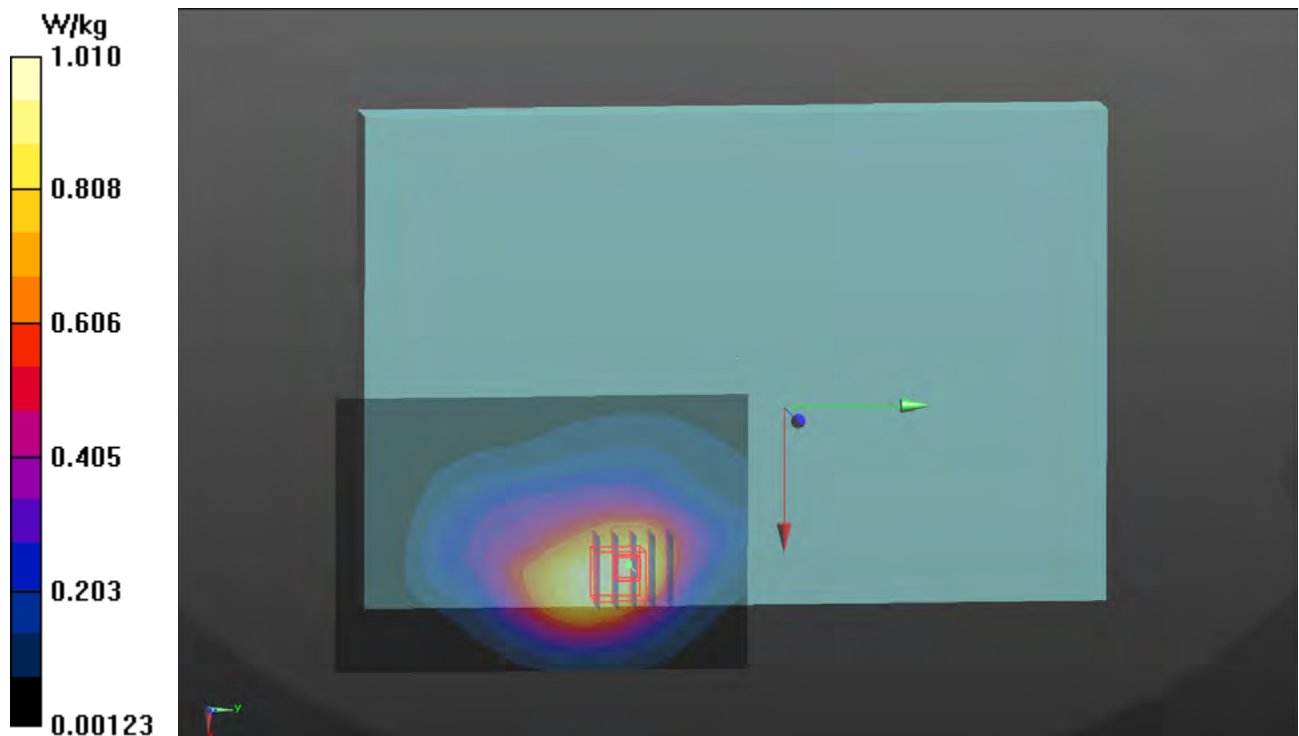
Ambient Temperature : 23.7 °C ; Liquid Temperature : 23.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3650; ConvF(9.82, 9.82, 9.82); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom\_2105; Type: QD OVA 004 Ax; Serial: 2105
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

- **Area Scan (81x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 1.01 W/kg

- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 34.20 V/m; Power Drift = -0.01 dB  
Peak SAR (extrapolated) = 1.13 W/kg  
**SAR(1 g) = 0.749 W/kg; SAR(10 g) = 0.508 W/kg**  
Maximum value of SAR (measured) = 0.994 W/kg



**P11 LTE 30\_QPSK10M\_Rear Face\_0mm\_Ch27710\_1RB\_OS0\_P-Sensor\_w\_o**

**DUT: 191009C01**

Communication System: LTE; Frequency: 2310 MHz; Duty Cycle: 1:1  
 Medium: H19T27N3\_1028 Medium parameters used:  $f = 2310$  MHz;  $\sigma = 1.717$  S/m;  $\epsilon_r = 38.499$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Ambient Temperature : 23.6 °C ; Liquid Temperature : 23.2 °C

**DASY5 Configuration:**

- Probe: EX3DV4 - SN3650; ConvF(8, 8, 8); Calibrated: 2019/05/20
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn861; Calibrated: 2019/05/08
- Phantom: ELI Phantom\_1206; Type: QDOVA002AA;
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

- **Area Scan (101x151x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
 Maximum value of SAR (interpolated) = 0.924 W/kg

- **Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
 Reference Value = 22.51 V/m; Power Drift = -0.06 dB  
 Peak SAR (extrapolated) = 1.15 W/kg  
**SAR(1 g) = 0.631 W/kg; SAR(10 g) = 0.349 W/kg**  
 Maximum value of SAR (measured) = 0.938 W/kg

